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**The Oxford Handbook of
STRATEGY**

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1 Introduction

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I. Introduction

The Oxford Handbook of Strategy is a compendium of chapters by prominent academics addressing some of the most important issues in the field of strategic management at the beginning of the twenty-first century. It is produced in six parts. All the contributors are practising academics, mostly currently researching in the area in which they have written their chapters for the Handbook. The book is part of an important new series of Handbooks that Oxford University Press is developing across the social sciences and humanities, including several in business and management. The first of these is *The Oxford Handbook of International Business* edited by Professor Alan Rugman and Professor Thomas Brewer. These Handbooks aim to address key topics in their field and to identify the evolution of debates and research on these topics.

The Oxford Handbook of Strategy is targeted at an advanced group of academics, researchers, and graduate students for whom it aims to be a useful resource, sitting between the specialist journal article or monograph and the extensive range of established textbooks in the field. It is intended to provide the graduate student, researcher, or strategy lecturer with a well-informed and authoritative guide to the subject and to the current debates taking place in the field of strategy. It aims to be a blend of mature thinking and cutting-edge speculation. For example, it revisits the

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traditional issue of the boundaries of the firm in the light of the New Economy, focuses on dynamic capabilities and organizational learning as issues vital to the maintenance of competitive advantage, and considers the impact on the mainly static tools of strategic analysis of the turbulent economic conditions inherent in the globalized world of today. In addition to these 'state of the art' issues, the Handbook also deals with the more traditional subjects of competitive analysis, the role of the corporate centre, and international strategy amongst others. Teachers of strategy will find both much of the traditional material for their presentations contained in the Handbook, as well as illustrations of how to introduce the newer issues of debate into their teaching.

What Is Strategic Management?

Strategy or strategic management applied to business problems evolved from a number of sources, including those of the taught case study and the discipline of economic theory. In the view of some writers (e.g. Kay 1993), it evolved as a theoretical discipline in response to the frustrations of managers at the limited help the study of economics was able to give them in running their businesses. Economics, even the industrial organization field, still operates on a very restricted set of assumptions, many of which are somewhat unrealistic in many areas of actual business life. Examples of these assumptions are that markets tend inexorably to move towards equilibrium; that decision-takers are always rational and try to profit-maximize all the time, and that decision-making is always based on all available information and is necessarily rational. Economics, especially in its neoclassical form, also holds that in the long run supernormal profits are not sustainable, except where there are unscalable barriers to entry, and that the differences between products in a given market, and between companies, tend to become minimal over time. Finally, and this is perhaps the key factor, economic decisions are taken deterministically in response to economic forces, and not as a result of discretionary management judgement. One unit of management becomes therefore much like another, and the concepts of entrepreneurship or even idiosyncratic management style do not sit easily even in modern economic theory.

Clearly, operating under such a set of assumptions, economists were of limited help in assisting managers in building profitable companies. However, the need was clearly there to help the entrepreneur tackle the complexity of the present, and the uncertainty of the future, by providing theories against which they could measure their decisions, when tackling strategic problems concerning the survival and

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prosperity of the firm. This is where the discipline of strategic management found its *raison d'être*.

However, despite the emergence of strategic management as a subject in its own right, and the self-imposed limitations of traditional economics, the academic discipline of economics in the sense of the study of the allocation of scarce resources and the analysis of supply and demand still underlies many of the frameworks that strategic thinkers have developed. Their aims are different, of course, in

that economists are ideologically inclined towards the admiration of perfect markets, whereas strategists actively seek market imperfections to help them in their unending search for the perfect product that no competitor can touch. Yet the economic underpinnings of much strategic thinking are clearly visible in many of the contributions to this Handbook.

However, the degree to which economics should be regarded as the one fundamental intellectual discipline informing the study of strategic management is still a key issue engendering heated discussion amongst theorists from varied background disciplines. Much of the thinking behind the papers in Part I of this volume reflect the unwillingness of psychologists, technologists, sociologists, and demographers to concede too much intellectual hegemony to the economists. For example, the current most popular approach to achieving strategic change tends to focus more on cognitive and psychological barriers to change than on the structural or organizational difficulties of implementing plans for change. Similarly the thinking of evolutionary biology and Darwinist survival theory is increasingly becoming influential in the determination of views of the future of particular industries.

Strategic management is about charting how to achieve a company's objectives, and adjusting the direction and methods to take advantage of changing circumstances. It was taught in the 1950s and 1960s under the title of Business Policy. This often involved senior executives teaching case studies with which they were familiar and attempting to draw out lessons with more than idiosyncratic relevance. Out of this developed the Long-Range Planning movement of the 1970s, which became a fashionable process, but often involved little more than the extrapolation of recent trends, or in negative situations the development of the optimistic 'hockey stick' approach to future performance. Not surprisingly, most long-range plans either gathered dust on shelves or merely failed to meet their declared targets.

The focus then switched to the portfolio matrix as a corporate tool to evaluate the health of the corporate portfolio of Business Units. The Boston Consulting Group, McKinsey & Co. and Arthur D. Little were the consulting companies in the vanguard of developing the most popular of these tools in the 1970s. However, it soon became apparent that the use of such tools was very mechanistic and a somewhat unsubtle approach to attempting to develop a corporation, and the stage was set for academic contributions to strategy development to be provided in the form of intellectual frameworks, and not merely in the form of case study

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anecdotes. Michael Porter (1979) soon arrived on the scene thereafter, and began turning what had by now come to be renamed Strategic Management into a subject with some claims to being an academic discipline with a degree of the required academic rigour. It soon became an established part of the Business School MBA curriculum replacing Business Policy courses, and came to be seen by many as the central core from which all other subjects fanned out. Thus, a generic strategy was chosen, e.g. focused differentiation, which, in order to achieve the detail necessary for implementation, then needed to be developed into a financial strategy, a marketing strategy, an operations strategy, an R&D strategy, and so forth.

Porter's background was in industrial organization economics and his most famous framework, the five forces competitive intensity of industry tool (1980) has considerable affinities with that discipline, as a means of assessing the importance of key factors in the industry environment as determinants of the potential profitability of that industry. He followed his industry analysis book *Competitive Strategy* (1980) with a subsequent one focusing on company analysis, *Competitive Advantage* (1985), which introduced the value chain as a key tool for the internal analysis of a company. Although the subsequently named 'Resource-based Approach' is more commonly traced back to Penrose (1959) or Selznick (1957) rather than to Porter, it is interesting to note that in his 1985 book on competitive advantage Porter does move away from the traditional economists' emphasis on the dominance of markets, and focuses on the actual make-up and activities of the firm seeking such advantage. This internal analysis side of strategic management was to come increasingly to the fore in the 1990s as the limitations of the market positioning approach for achieving differentiation and hence advantage became apparent, and the work of Prahalad and Hamel (1990) and of Teece, Pisano, and Shuen (1997) became particularly salient in taking the thinking beyond simple value chain analysis, and focusing on what the firm could do better than others and which was difficult to imitate.

Setting the strategic direction for a business is the most complex task facing any top management team. The complexity arises for a variety of reasons that are peculiar to strategy-making. Strategy is about the future, which is unknown and unknowable; there are many paths that a firm could follow, and firms operate in dynamic competitive environments. But because strategy-making involves people, complexity is compounded, since each executive involved has his/her own views and motives, which may or may not be explicit, and in deciding upon a particular strategy, individuals are constrained by their past experiences, taken-for-granted assumptions, biases, and prejudices (Bailey and Johnson 1992).

There are, of course, ways of dealing with these layers of complexity. One is to avoid the problem of strategy altogether by running the business on an ad hoc, day-to-day basis. This can work as long as the things the firm is doing continue to be relevant to the markets it operates in. Another might be to engage in some form of

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long-term planning, extrapolating known trends and discovering their numerical resource and profit implications. This can be a more or less elaborate process: at the simpler end of the spectrum, planning can be merely a form of extended budgeting. More elaborate planning systems would involve scenario building; extensive market, competitor, and company analysis; generation of options; evaluation and selection from a range of possible strategies; and detailed action plans, budgets, and control systems. Planning processes do not eliminate complexity, but they can provide a structured way of coping with an uncertain future.

Complexity can be dealt with by taking a broad view of what the organization should look like some time in the future. This can be captured in a mission and/or vision statement of intent, and allowing people to evolve strategies within these broad guidelines. This approach might be favoured in organizations facing more turbulent environments in order to provide at least some benchmarks for judgement. The development of broad-based organizational learning capabilities aims to deal with this issue to some extent as John Child emphasizes in Chapter 15.

Knowing that the company has a strategy is important for employees to feel that at least up to a point they know where they are going, and how they are trying to get there. In this sense, it is essential to the management of successful businesses. A shared understanding of where the firm is trying to go can be liberating and empowering. Some view of where and how the firm is trying to compete gives confidence to managers from the top downwards. It assists managers in making resourcing decisions, and it can instil a sense of purpose. Because the future is uncertain, it is impossible to analyse the firm's situation completely rationally, in a way which produces a single 'correct' strategy for the business. However, faced with uncertainty and complexity, some sense of direction is better than no sense of direction. A well thought through and well argued strategy will not necessarily be the optimal strategy for the business, and there may be several viable alternatives, each with their advantages and disadvantages as a real options approach (cf. Kogut and Kulatilaka in Chapter 30) is set up to acknowledge. The future may indeed be different from that envisaged at the outset, nevertheless a shared and agreed view of where the management is trying to take the firm is an essential ingredient for the successful management of today's activities.

Strategy-making can be approached from a descriptive and a theoretical perspective. In the last two decades a number of excellent academic books have ably set out the major issues involved, and have comprehensively reflected the ever-widening range of theoretical perspectives that have been brought to bear on strategic management (cf. Johnson and Scholes 1989; Grant 1991; de Wit and Meyer 1994; Kay 1993; Quinn, Mintzberg, and James 1988). Insights from economics have now been augmented (and sometimes contradicted) by contributions from cognitive psychology, social anthropology, organization sociology, and political theory. The problems of 'rational planning' are by now all too evident, and why it often does not lead to successful change.

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However, senior managers do have to make strategic decisions. They are not in the comfortable position of an academic observer, who whilst being able to point out how complex everything is, can always walk away from the problem. The essence of senior management work is to wrestle with the problems of strategy. The concepts, models, and techniques presented by the chapter authors in this book should be regarded as tools for thought, and aids to decision-making. None of them gives the certain right answer to the strategy problem. They are designed to help executives to structure a strategy debate; they do not take the place of the debate.

The tools and techniques have evolved over the last two decades. Some are slight adaptations of existing methods. Others have been newly created to address a particular problem encountered in facilitating strategy debates with top teams. Benefits are derived from the thinking and discussion involved in applying the tools, as well as from the insights generated through the analysis. None of the techniques is a substitute for the exercise of judgement. The techniques covered force important questions to be asked which are not routinely discussed. This prompts a search for better information (e.g. on customers' real needs), and it usually provokes a more critical evaluation of the firm's situation.

Varying Approaches to Strategy

During the early crystallization of the strategic management field of study, the only approach to the creation of strategy was the rational approach. This was generally embodied in a sequential process of strategy formulation which involved setting objectives, analysing the external environment, identifying the company's strengths and weaknesses and those of its competitors, generating a number of possible strategies, selecting the best one, and proceeding to implement it. This process was associated in the early days of Strategic Management with the names of Learned, Christensen, Andrews, and Guth (1965), and with Ansoff (1965), all significant figures in the US business school world dating back to the 1960s and 1970s. Along a different track but equally important to the history of strategy was the work of Chandler (1962), who linked together the selection of a strategy with the subsequent organization of the company to implement it.

However, two problems developed with this somewhat determinist and very rational approach to the development of strategy and

organization. First, it was observed that companies rarely implemented strategies formed in this way. Secondly, many companies did not form their strategies in this way anyway. It was

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much more common for strategies to emerge through a fine-tuning process of trial and error with subsequent adjustments to meet the needs of changing circumstances. The name of Henry Mintzberg (1973; Mintzberg and Waters 1985) became closely associated from the 1970s and onward with the movement to question the idea and practice of rational strategic planning and indeed what a manager actually did in his job, as opposed to what the traditional writers on organizations claimed that he did. Mintzberg proposed the replacement of the rational well thought out approach to strategy formulation with the more pragmatic, trial and error process of emergent strategy, and so stimulated writers to focus on the actual strategic process rather than merely the content of strategy, assuming a rational process as was the traditional case.

Since then a number of authors have published 'definitive' taxonomies of planning schools including: Bailey and Johnson's (1992) rational, political, visionary, ecological, interpretive, and logical incremental approaches with as many hybrids as companies employing them; Whittington's (1993) classical, processual, evolutionary, and systemic styles; Chaffee's (1985) linear, adaptive, and interpretive schools; and ultimately the tenfold strategy schools taxonomy of Mintzberg, Ahlstrand, and Lampel (1998), namely the design school, the planning school, the positioning school, the entrepreneurial school, the cognitive school, the learning school, the power school, the cultural school, the environmental school, and finally the configuration school. Clearly many of these supposed schools overlap in concept. We would defy anyone, for example, to distinguish between Bailey and Johnson's rational, Whittington's classical, Chaffee's linear, and Mintzberg's design schools. Similarly, it is commonsense that a strategy put together in a linear, rational, classical way will then be adapted and emerge as something at least slightly different over time.

Without wishing to add to the confusion over strategic planning schools, we would opt for a broadly conceived taxonomy of four strategic methods which can be used by a company without risk of self-contradiction when it is developing its strategy: the rational planning process, the logical incremental process, the evolutionary imperative, and the cultural constraint.

The Rational Planning Process

Many companies, especially the larger ones, do indeed have strategic planning departments and processes during which they review past plans and develop new ones on a rational analytic basis. The planning cycle is normally carried out on a regular basis during the year, and both line managers and planning staff spend considerable time in market analysis, and in formulating appropriate strategies for the future. They identify planning gaps between the firm's numerical objectives and

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the results believed likely to emerge if present strategies are continued with. They then devise new strategies to fill the supposed planning gap, and develop action plans with timetables and responsibilities to make sure the plan is carried out correctly and on time.

The Logical Incremental Process

Due to such thinking as real options theory (Dixit and Pindyck 1994), companies often do not take actions on plan implementation until they absolutely need to, thus keeping their options open until the last minute, and taking decisions based on the latest available information. This enables the implementation of plans to be adaptive, and to emerge to meet an existing situation, rather than one forecast earlier, and no doubt different in actuality from what was expected when the original plan was developed. The logical incremental approach also leads to a more flexible mindset than might be the case with a strict classical planning process. However, a key issue in the use of this approach is the degree to which major schemes involving complex and high fixed cost planning can be embarked upon by means of it. If everyone were logical and incremental, would the major periodic 'punctuating of the equilibrium' (cf. Tushman and Anderson 1986) ever take place; would competence destroying changes ever happen or would all progress be based eternally on minor competence-enhancing efficiency improvements?

The Evolutionary Imperative

Whatever is planned, only what works will succeed, so a natural selection element enters into the interaction between all planning and subsequent decision-making. Thus, although a company may plan to achieve certain targets, this may be beyond its abilities, and if it is sensitive to what happens to it as it pursues its business, it will soon adjust its strategic behaviour to enable it to achieve results that are within its compass. This requires its strategic management approach to include some elements of evolutionary adjustment behaviour in

the interests of survival. Evolutionists, however, frequently raise the issue of whether major changes in companies in response to evolving forces are really possible (Hannan and Freeman 1989), or whether path dependency is dominant in constraining the actions companies can and will take (Ghemawat 1991), thus inhibiting firms from achieving major strategic change. There is certainly ample evidence to suggest that the market leader with an existing technology rarely finds it possible to make the necessary adjustments and remain market leader when a new technology takes over (cf. the history of IBM and of Microsoft for interesting case studies on this subject).

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The Cultural Constraint

Whatever the company's espoused planning system, it will inevitably include cultural constraints in its thought processes and strategic behaviour. Executives in Shell behave differently from those in say the old-style Hanson and have different value systems at work; a Japanese company typically behaves differently from an American or a British one. The reasons for this are to be found in the corporate and national cultures of the companies, and these are reflected in their strategic management systems whether or not the decision-makers are aware of the fact. So the cultural element enters into strategic management in providing a set of implicit, and often only subliminally perceived constraints to a firm's strategic management. A key issue in the field is therefore the issue of *convergence*. To what extent is there a best practice worldwide for the performance of particular activities, and to what extent are companies constrained by their national origins and their administrative heritage (Bartlett and Ghoshal 1989), and therefore doomed to exhibit only such limited strategic behaviour as those constraints allow?

Thus, strategic management in the modern age can be characterized as frequently having a strong rational aspect to it, at least at the planning stage, and then, due to the increasing turbulence of many markets, to be likely to take on aspects of the logical incremental philosophy to avoid errors due to the unpredictability of the movements of market. Evolutionary forces will inevitably operate on it, exhibit aspects of natural selection, and constrain the range of possible decisions made, and company and national culture will exercise different but probably equally powerful constraints.

More recently we face the problem of the growing turbulence in world markets as globalization, or at least regionalization makes a small percentage change in demand or supply lead to strongly fluctuating national fortunes. In such circumstances the strategies appropriate to stable conditions, and even the methods of strategy formulation become questionable in turbulent ones, and the need for a dynamic approach and for robust strategic flexibility become necessary for survival, rather than a narrowly defined focused strategy. The issue of what the boundary of the firm should be in such circumstances is a key one. To what extent does it make sense to regard the integrated legal entity as the firm, or is the enterprise in business reality from many viewpoints that composed of the core firm, its strategic allies, and its subcontracting suppliers?

Part I: Approaches to Strategy

The Handbook opens with a chapter by John Kay, Peter McKiernan, and David Faulkner on the history of strategy in which they concentrate on the last thirty years in which strategy has been a distinct subject of theoretical and empirical study. They

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deal with the 1960s growth of corporate planning through the 1970s with its emphasis on diversification by means of portfolio planning to the late 1980s when the concept of the core business began to become predominant. Finally they come up to date with the consideration of the application of chaos and complexity theory to strategic issues and the problems for strategy of facing an increasingly turbulent business environment. The authors emphasize the need, if the study of strategy is to be effective in outcome, to develop a fruitful blending of deductive logic, game theory, and empirical observation.

In Chapter 3 Martin Slater goes to the core of the difference between the study of economics and strategy in identifying the firm and its logical boundaries as critical to the work of the strategist. In so doing he unearths the economic roots of this investigation in the early work of Coase (1937) and the continuing line of enquiry in the work of the transaction cost economists, notably Oliver Williamson (1975, 1985). In all this, it becomes very apparent that it is the firm, its boundaries and its essential nature, differentiated from one firm to another, that is the true study of strategic management.

Chapter 4, contributed by David Barron, illustrates the importance of evolutionary forces in the development of firms in markets. He emphasizes the important work of Hannan and Freeman (1989) in this regard and of Nelson and Winter (1982) in demonstrating how Darwinian, and indeed Lamarckian, theories of evolutionary development, through fit and adaptation, provide a strong force in determining the way in which markets and firms develop irrespective of the more newsworthy role of great industrial leaders.

Not only is the development of strategy constrained by evolutionary forces, but also by the forces of institutionalism, as Ray Loveridge

points out in Chapter 5. Regulative, normative, and cognitive pillars of social order exist in society in the form of organizational rules that we accept in a utilitarian way; principles that we feel we ought to be committed to, and cognitive values that become part of our 'taken for granted' views of the world. These factors limit the degree to which we have effective free choice in our selection of strategies.

In Chapter 6 David Teece tackles the increasingly important area of technology strategy and the question of how to profit from innovation. He stresses the three prime requirements, if one is to make profits and hold market share as a result of a technological innovation. First, you need a strong appropriation regime to protect your innovation from would-be pirates; then you need your new product or service to be adopted as the dominant design paradigm in its niches; and thirdly, you need sufficiently strong complementary assets to ensure that you can produce the product at lowest cost, to a sufficient volume, and distribute it effectively. If you lack any of these three factors, a strong technology strategy may well lead to a weak profit performance, as some stronger company steals your innovation.

Strategy rarely leads to valuation in the conventional books on the subject. Peter Johnson remedies this omission in Chapter 7. He outlines the relevance of financial

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theory to strategy formulation, describes the major developments in valuation techniques, commenting on their strengths and weaknesses. He then proposes a new valuation framework for assessing the strength of specific competitive strategies in financial terms, so providing the decision-taker with the necessary financial information to decide whether to adopt the proposed strategy or not.

Robert Grant describes in Chapter 8 how the knowledge-based approach to the firm allows corporations to be looked at in an entirely new way to the traditional fixed asset approach; one which may be more relevant to the modern knowledge-dominated economy. He emphasizes the importance of ensuring that decisions are taken where the knowledge is, and in setting up systems for retaining knowledge in the firm. The development of a modular approach to organizational structure also helps to identify where knowledge needs to pass from one part of the firm to another, and where the module is knowledge self-sufficient, in which latter case the possibility of running that part of the firm as a separate unit arises.

Part II: Competitive Strategy

Competitive strategy is what business was about before the development of the multi-SBU corporation. It is about finding a strategy that is better than that of your competitors, and that thus enables you to make repeatable profits from selling your products or services. Whereas the corporate strategist need never see a product or a customer, such matters are the lifeblood of the competitive strategist, and the achievement of sustainable competitive advantage with his products is what he dreams about.

Competitive strategists concern themselves with such issues as how to configure their value chain optimally, what products and services to offer to what specific market segments, how to achieve differentiation from the offerings of their competitors, and how to control costs in order to be able to be price-competitive. They also need to identify what is the business idea that distinguishes their company from others, and to appreciate early what are the forces for change in the industry, so that competitive strategy can be adjusted in time to accommodate them. A business can survive with a mediocre corporate strategy, and even if it has a poor one, the individual business units may still survive under new ownership, when the poorly performing corporation is taken over and broken-up. A company cannot survive with a poor competitive strategy however. In that event it will make no profit and eventually cease to exist.

The overriding strategic issue at the level of an individual business unit or firm is how can the firm gain sustainable competitive advantage over other firms producing similar products or services. This is not a new argument. However, there is a great deal of debate in the competitive strategy literature that stems,

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largely, from two different economics-based traditions. On the one hand, there are theories of competitive strategy that derive from industrial organization (10) economics (Caves and Porter 1977; Caves 1980; Porter 1980, 1985). In these theories superior profits stem from the firm positioning itself well within the structure of the industry. Where firms face few competitors, and where it is difficult for firms to enter the industry, the incumbent firms should make reasonable profits. An individual firm's profit performance can be further enhanced where it can successfully implement a strategy of either cost leadership or differentiation (these are Porter's 'generic strategies'). The lowest cost producer in an industry must earn above average profits if he prices at industry average levels. Above average profits can also be achieved where the firm can successfully differentiate its products. Here superior profits are generated because the successful differentiator can charge premium prices.

More recently, a competing school of thought (which actually can be traced back to Penrose 1959) which focuses attention on the firm's

unique resources has emerged. This resource-based theory (Wernerfelt 1984; Barney 1991) holds that above average profits stem from resources controlled by the firm that not only combine to deliver valued products, but that are also difficult for other firms to imitate or acquire. Both sets of theories get a very adequate airing in the book, and they are by no means mutually incompatible, and many theorists and practical strategists attempt to combine both approaches.

In Chapter 9 Robert Pitkethly outlines the first stage of the rational planning process of developing a competitive strategy, namely environmental analysis. He starts with a description of the by now traditional Porter five forces model (1980) used for estimating the competitive intensity of a specific market, and describes its strengths and limitations. He then introduces the value net of Brandenburger and Nalebuff (1995) in which a game theoretic approach is taken to the other actors which interact with the planning company in a market. Pitkethly also alludes to the existence of evolutionary forces in competitive markets building on the views of David Barron in Chapter 4

One of the limitations of the five forces model is the difficulty in determining the boundaries of the market that is relevant for the analysis. In Chapter 10 John McGee shows how an analysis of the strategic group to which the planning company belongs helps in this definition. He also shows other ways in which the analysis of strategic groups can help the strategic manager in focusing his attention in the areas where the competitors important to his company are to be found, and in identifying areas of strategic space where the strategist may find switching the focus of his strategy to be advantageous.

In Chapter 11 Geoff Coyle shows how by means of scenario planning the limitations of single point forecasting can be overcome. By developing a number of alternative scenarios a wider range of options and possibilities can be considered and a greater understanding of what might happen developed. The advantage of

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scenario planning is that it enables the planner, whilst still selecting one fixture, to also build contingency plans to cope with some of the possible alternative futures that may come about.

Chapter 12 by Ron Sanchez focuses on the internal analysis of a firm and its competences. It describes the way in which the company needs to develop core competences that are difficult to imitate or substitute for, and that thereby provide the foundation for sustainable competitive advantage. In this chapter Sanchez clarifies the roles of resources, capabilities, and management processes in creating such organizational competences.

In Chapter 13 Stephen Tallman builds further on the capabilities needed by a company for competitive advantage particularly in high technology markets. He introduces the concept of basic processes needed to build and exploit dynamic capabilities, emphasizing that, since such capabilities are concerned more with process than specific performance, they are thereby more difficult to imitate than other capabilities, and also more likely to continue to be valuable and a source of competitive advantage even in volatile changing markets.

Having analysed both the external environment or market and the internal capabilities of the firm, the time has arrived in Chapter 14 to formulate a competitive strategy. Cliff Bowman introduces the customer matrix as a tool to aid the strategist in the selection of a strategic direction that is likely to succeed in relation to his competitors in delivering higher perceived use value at a competitive price. This chapter deals with strategy formulation for existing products in current markets, and does not consider the options for product or market diversification. This, as a corporate strategy, is dealt with in Volume II of the Handbook.

One of the dynamic capabilities discussed in Chapter 13 is that of being able to learn as an organization faster and more effectively than your competitor. John Child analyses the nature of organizational learning in Chapter 15. He indicates the different forms of learning, and how they can be achieved. He stresses the critical importance of organizational as opposed to merely individual learning, if a company is to stay ahead of its rivals even when key personnel leave. This builds on the ideas of Rob Grant in Chapter 8 on the knowledge-based approach to the firm, where he emphasizes the need for knowledge-integrating mechanisms in the firm if all learning is not to remain individual and to disappear with the departing executive.

Much of the book so far has implicitly dealt with strategic management in relation to product-based organizations. In Chapter 16 Susan Segal-Horn considers what changes need to be made to the strategic mindset when running a service organization. She concludes that the traditionally held differences between service and manufacturing organizations are diminishing as high technology is fast entering the service sector and leading to scale and scope economies and other cost advantages not generally associated with services. The remaining critical difference, however, will always be that services are an 'experience', and hence recognition of the dominant importance of strategic implementation is the key to success.

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Part III: Corporate Strategy

So far as corporate strategy has existed as a topic separate from business-level strategy, it has had a chequered existence. Only in the

last ten years has a rigorous consensus emerged.

Chapter 17 by Goold and Luchs provides a valuable scan of thinking in the corporate strategy area over the last forty years. The topic rises to prominence with the arrival of the conglomerates. Before the creation of highly diverse companies such as Harold Geneen's ITT, the issue of multi-business companies was only addressed in passing. In the 1960s the topic of strategy itself was only just taking form and there was little understanding of the distinction between strategy at the marketplace level and strategy at the firm level.

The concept of general management skills that could be applied across a range of businesses did exist as did the concept of synergy. In fact for the next thirty years these two concepts were two paths along which thinking developed, with very little attempt at integration. In trying to understand conglomerates, the Boston Consulting Group developed the BCG Matrix, Boston Box, or growth/share matrix. Its elegance, managerial language (cash cows, dogs, etc.), and simplicity caused the Boston Box to dominate the teaching of corporate-level strategy. This tool was followed by other major consultancies with their own variants, notably McKinsey and Arthur D. Little, who were determined not to be left behind in the race to acquire prestigious multinational clients.

With hindsight the ideas spawned by the matrix—portfolio balance and diversification—proved to be disastrous. Many companies in the 1970s and 1980s set off on the path of diversification eager to create a portfolio that could finance itself while delivering a stream of 'quality earnings growth'. The strategy was attractive to managers, because it suggested that they could create a portfolio that would not be subject to the vagaries of the capital markets. But they also believed that this was the right thing to do based on the best academic thinking.

The story of failure is best illustrated by the major oil companies, who energetically entered new businesses starting with the first oil crisis in 1974/5. Having tried almost every industry, these companies spent the last years of the 1980s and the early part of the 1990s licking their wounds and returning to the only business they had proved competitive in—the oil industry.

While the world was experimenting with diversification, the synergy logic was still alive. The frustration was that it continuously failed to submit to the rigours of academic thinking. Rumelt (1982) showed that 'related' diversification out-performed 'unrelated' diversification, demonstrating a critical flaw in the Boston Box. But the results were hard to replicate. The case for relatedness had the same tautological attractiveness as the case for portfolio balance, but, since neither could be demonstrated to be superior to the satisfaction of the academic world, they existed alongside each other, allowing managers to find a theory

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to support whatever they wanted to do and academics to teach whatever they wanted to.

Enlightenment was slow in coming. It was given a huge indirect boost by the re-emergence of the resource-based view of strategy after a gap of twenty-five years from its first introduction by Penrose in 1959. Picked up by Wernerfelt (1984) and later by Prahalad and Hamel in the form of 'core competencies' (1990), the synergy school now had some managerial language and better theory with which to fight the portfolio school. Prahalad and Hamel were pushing on an open door. Managers found that their diversification efforts were underperforming and desperately needed a new logic for guiding their decisions.

The merging of the synergy and portfolio schools came in the early 1990s. The three leading teams working on the topic (Prahalad and Doz, Goold and Campbell, and Collis and Montgomery) came to the same conclusion: that corporate-level strategy was about achieving a fit between three elements:

- (1) the value creation logic for having multiple businesses under one management team;
- (2) the choice of businesses to have in the portfolio; and
- (3) the skills, processes, and structures used to manage the portfolio.

The portfolio school did not make sense if the logic was balance or risk spreading. These rationales were demonstrated not to be a value-creating logic. The share-holder is in a better position than managers to balance and spread risk. The portfolio school did make sense if the logic was based on added value.

The synergy school was also challenged. Instead of looking for relatedness in the nature of the businesses, synergy could depend on skills, processes, and structures of the parent company. Success occurred when the businesses were 'related' to the skills of the parent, which were themselves built on an understanding of how to create value. Each team inevitably developed its own language and framework, but a robust intellectual framework had finally been agreed.

In Chapter 18, Prahalad and Doz explore the different kinds of economic logic that can sustain a diversified company and link these to different governance mechanisms. One of the messages from this work is the importance of the CEO, a theme that also runs through the work of Goold and Campbell. Since the economic logic for the company must come from the top, there is a tough strategy demand put on the CEO. Moreover, since the economic logic must fit with the skills of the corporate centre, the skills of the CEO being a dominant element, the economic logic is often constrained by the CEO's personal skills. Corporate strategy starts to look almost like career strategy

for the CEO.

This tight link between the concept of corporate strategy and the skills of the individuals in the corporate parent is taken up in Chapter 19 by Andrew Campbell— 'The Role of the Parent Company'. This chapter summarizes the contributions made by Goold and Campbell to the theory of corporate strategy. This

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version—parenting theory—places equal emphasis on value destruction and value creation. The task, Campbell argues, is not only to develop a value creation logic but also a logic for avoiding 'Value destruction'. There must not only be a fit between the businesses in the portfolio and the skills of the parent, there must also be an absence of major misfit.

This might seem like playing with words. But the theory is based on many years of observation, which pointed out that parent companies have a big impact on the decisions made in the businesses they own. This creates the potential for value creation and destruction. In fact value neutrality is the one state that is most rare. Value destruction is avoided by ensuring that parent managers have 'sufficient feel' for the businesses they own. The most engaging analogy is that of the specialist doctor. He or she develops some medicine or way of interacting with patients that have a particular health issue. Value is created when this medicine is applied to a patient with the health issue. Value is destroyed if the medicine has side effects and is applied to patients without the health problem or if the side effects are more severe than the beneficial effects in certain patients. The best doctors only give the medicine to patients who will experience a net gain, and the ideal situation is to give the medicine only to patients for whom the net gain is greater than that available from other solutions to their health problem. Parenting theory is, therefore, built on the concept of 'parenting advantage' just like competitive strategy theory is built on the concept of competitive advantage.

With agreement about the integrated view of corporate-level strategy, much of the interesting work currently underway takes these evolving theories and applies them to particular issues such as acquisitions, alliances, organization design, and organization renewal.

Schoenberg's 'Mergers and Acquisitions', Chapter 20, provides further evidence for the integrated view. Acquisitions frequently fail. In fact the numerous studies on success rates come to a remarkably consistent view that less than half of acquisitions succeed. Much of the blame can be laid at the feet of ambition, hubris, and incompetence. But for many it is a lack of a sufficient understanding of the rules of the game—of the integrated view of corporate-level strategy.

To add a business to the portfolio through acquisition, the buyer must believe that he or she can outbid other interested buyers without overpaying for the business. Assuming the other bidders are rational, they will be prepared to pay a price close to the value of the business to them. To outbid others, the buyer must believe that the target business is worth more to the buyer than to any other bidder. In the language of parenting theory, the buyer must believe that he or she has parenting advantage. The 1999 fight between Royal Bank of Scotland and Bank of Scotland for National Westminster Bank was a classic. The Royal Bank won because it was able to convince the institutions that it could do more with the National Westminster assets.

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Schoenberg also describes the importance of integration management. Integration is the mechanism by which the buyer creates additional value from the acquisition. But too much integration can destroy value and too little can leave value on the table. Knowing the appropriate level of integration is an essential part of a parent company's skill set—a skill that the parent must be better at than others at least for certain kinds of acquisitions. As Schoenberg points out, the handling of employee resistance following an acquisition is one part of integration management that requires particular attention.

A similar logic can be used to address cooperative strategies, such as alliances and networks: only network or ally with businesses where the combined value is greater than that available to any other combination of partners. However, as Faulkner points out, in Chapter 21, there are other forces at work. In acquisitions, the buyer typically pays full value plus a premium for the target company. In alliances and networks there is often no payment as such, just an agreement to commit to work together. Advantage can, therefore, be gained by choosing partners with as much attention on how to deprive competitors as on how to maximize value from the partnering. In fact a game theory perspective as illustrated by Powell in Chapter 29, is a useful one not only in understanding the rationale for cooperation but also in thinking about partners.

Faulkner notes the rapid growth in popularity of alliances in response to the increase in globalization of markets in recent years. The growth of international strategic alliances has in fact been one of the phenomena of the last decade. Apart from finding a partner with complementary assets able to realize synergies, he emphasizes the importance of trust and commitment by the partners to the enterprise, if the alliance is to be successful in the longer term. The chapter also considers the allied but distinct area of strategic networks, and their

importance in assisting the globalization of enterprises. This view leads us to the next section of the book—international strategy.

Part IV: International Strategy

International strategy can be viewed as being a subset of corporate-level strategy, on the one hand, and competitive strategy, on the other. As a part of competitive strategy, international strategy is about situations where the international sources of advantage make it impossible for locally focused businesses to survive. In most cases this is because the economies of scale from serving multiple markets are critical to competitive success. For companies in small countries, most businesses need to be international to survive. For companies in the United States or Germany the number is much smaller.

Viewed as part of corporate strategy, international strategy is about diversifying into other countries in order to create additional value. The operations in the other

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countries are additional units in a portfolio and can be analysed with the same framework as corporate-level strategies. Is there a value-creating logic for having multiple units in one portfolio? Does the parent organization have skills, resources, structures, and processes that are well designed to exploit the value opportunity? Do the businesses in the portfolio benefit significantly from the medicine the parent organization is offering? Finally, does the benefit exceed that available from any other parent company?

Unfortunately, the field of international strategy has developed largely independent of corporate strategy. Hence few writers in international strategy are attempting a synthesis. When this comes, it will give a big boost to the topic of corporate strategy, because there are many more academics studying international issues than corporate issues.

In Chapter 22, Faulkner attempts to provide some answers to the question of how multinational corporations configure and coordinate their international strategies, by examining various approaches to internationalization as a strategy process. This analysis includes considering the stages models of internationalization, studies of the link between strategy and structure in MNCs, and more recent organizational models of multinational organizational forms, including that of the most modern, the transnational. Finally Faulkner introduces a model to summarize and discuss the four basic multinational forms described.

Since the terrorist attacks on the World Trade Center in September 2001 and the protests at Summits of world leaders, much has been written about the pros and cons of globalization. What Faulkner's chapter shows is that the forces of globalization are simple economic ones connected with scale and skill benefits. The result is greater value creation, which should make it possible to benefit all stakeholders. The tragedy of the anti-capitalist and anti-internationalist forces is that they may slow the process of value creation.

We should recall that challenges to economic forces have been made many times before. The market economy was viewed with great suspicion as recently as the 1940s. In 1942, Joseph Schumpeter, along with other economists, commentators, and even industrialists, forecast the demise of capitalism. In *Capitalism, Socialism and Democracy* Schumpeter wrote in the preface: 'a socialist form of society will inevitably emerge from an equally inevitable decomposition of capitalist society'. Later in the book he reinforces the thought: 'Can capitalism survive? No, I do not think it can. One may hate socialism or at least look upon it with cool criticism, and yet foresee its advent.' At the time, there was a strong view that capitalism = competition = waste.

Yet we have learned since that competition is the engine of progress: the fuel of value creation. We should hold faith with globalization for the same reasons.

Rugman and Verbeke, in Chapter 23, criticize Porter by showing that his generic global strategies are 'neither global nor generic'. In their place Rugman and Verbeke offer a new framework of four generic strategies based on distinguishing between location bound and non-location bound sources of value on one

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dimension and the number of home bases on the other. There have been many attempts to develop generic strategies and Rugman's certainly has value. However, like the others, there is a danger of oversimplifying. In practice each company needs to understand the sources of internationalization value, and develop strategies that are stronger the more they are uniquely tailored to the company's specific resource endowment.

Rugman and Verbeke also develop a framework for understanding the role that transnational networks can fulfil in a context of global competitiveness. This framework distinguishes between intra-organizational and inter-organizational networks. It also looks at the number of home bases. The weakness in the Porter frameworks is the assumption of only one home base, whereas 'most of the interesting research issues in international business stem from the complexities of organizing a multinational enterprise across multiple home bases'.

Buckley, in Chapter 24, uses standard economic theory to examine the impact of multinational companies on the global economy and vice versa. He notes that the global economy has more shocks than it used to have, and these shocks are more rapidly distributed around the world system. Multinationals play a role not only in responding to these shocks, but also in generating them and transmitting them. The implication for the multinational is a need for increased flexibility in strategies, organization, and firm boundaries. The issue of flexibility is picked up again in the last section of this book.

First, however, there are four chapters on the subject of change.

Part V: Change

Change is a topic of such importance to strategy that it is almost synonymous with management itself. If management is anything other than the creation of bureaucracies, it is about the management of change. Change is not, therefore, a topic limited to corporate-level issues. It is central to almost all strategy. If all changes were possible, there would be very few constraints on the strategy development process. At the business level, it would be possible to analyse the needs of each marketplace, identify what competencies are needed to succeed, and put the competencies in place. At the corporate level, it would be possible to analyse the needs of each business, determine what parenting skills are needed, and put them in place. Unfortunately, resources and competencies are hard to change and the marketplace is competitive. Hence the management of change is about the implementation of strategy; how to build the resources and skills needed to outperform competitors in the marketplace or other parent companies seeking to own similar businesses? If the changes needed are too difficult, the strategy will fail. If the strategy is not ambitious enough, competitors will get ahead. The problem is

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never ending and, as such, never completely solvable. This is why, despite huge improvements in the management of change, the task does not appear to get any easier. Managers still find it difficult to achieve the changes they need. In fact they always will. However good our change technology, the challenge is fundamentally a competitive one. Unless a company has major advantages over its competitors, it will find the management of change to be a tough challenge.

Whipp, in Chapter 25, underlines this point with the words, 'It is apparent that managers continue to regard strategic change as an area fraught with problems, notwithstanding the rhetoric on some book covers which would seem to indicate otherwise.' Whipp argues that those trying to understand change need three perspectives. First, the discipline has a long and intertwined history. It is important to locate authors in their contexts, if the reader is to understand and use their insights. Second, the reader needs to be aware that many writers fail to distinguish sufficiently between different points on the continuum of change—from the status quo at one end to transformational change at the other. Prescriptions and observations of one type of change are often of little use if applied to another type of change. Third, the reader needs to be sensitive to the process view of change.

This view has become the bedrock of many of the most notable examinations of strategic change. The main benefit has been to show that a step by step approach to change is not relevant. It is a much more serendipitous and chaotic activity. Managers can be ambitious to nudge the change process and even provide conditions favourable to the direction of change desired. But managers cannot be ambitious to be in control of change.

McKiernan, in Chapter 26, addresses the question of change in the specific conditions of a turnaround situation. He is interested in change when the survival of the company is at stake. He develops a six-stage model for the turnaround process—causes, triggers, diagnosis, retrenchment, recovery, and renewal. Stage process models are now a generally accepted approach to the subject. McKiernan adds causes, triggers, and renewal to the more normal diagnosis, retrenchment, recovery model.

McKiernan gives particular attention to the behaviour of the dominant coalition, explaining what actions to expect and when, but, more importantly, why they occur. He uses the lenses of learning systems and complexity theory. He points out that each situation needs a unique solution. Corporate cultures and learning systems differ for each firm calling for a different approach to turnaround, a theme at the root of most good thinking about strategy as well.

Whittington, in Chapter 27, tackles the issue of organization structure. Whittington's chapter illustrates the limited state of theory on the subject of structure. Contingency theory is the bedrock of structural analysis, but contingency theory says very little in theory terms. It denies the idea that there is one right structure for all organizations. But it fails to define the variables that managers should use to design their organizations. Whittington identifies some of the variables that are commonly cited as relevant—size, technology, environment, strategy, degree of

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internationalization—but all of these variables are too imprecise and unqualified to give specific guidance to a manager faced with a tough design decision.

Certainly there are plenty of models of types of organization, but there is as yet no generally agreed theory. It is generally agreed that organizations should be less hierarchical, more networked, and more customer focused, but not why. We do not have a theory that explains why these variables are the right ones to focus on.

Whittington's discussion of future organization structures underlines the problem. Unable to predict the direction of organizational development from an understanding of the theory, he focuses on current trends: 'If present trends provide at least a hint about the future...'. One might speculate that some of the problems encountered in the field of change generally may lie in our poor understanding of what is often referred to as one of the 'hard Ss'. If we do not know how to design the hard Ss, how are we going to manage the soft ones?

Williamson, in Chapter 28, tackles the topic of strategic renewal. He demonstrates that strategies decay, and provides four measures of strategic decay:

- (1) divergence between revenue growth and earnings growth;
- (2) rising ROCE but falling P/E multiple;
- (3) a high ratio of rents to new value creation; and
- (4) convergence of strategies in the industry.

Avoiding strategic decay is about having a portfolio of options to expand both capabilities and markets. While the work on corporate strategy and international strategy emphasizes value creation logic for expanding markets or capabilities, Williamson's logic is that of strategic renewal. Unless the company grows in some direction it will die. The synthesis between the two ways of thinking is missing, but some of the ideas from the strategic renewal school are compelling.

One such idea is the innovation pipeline. Companies it is argued need a pipeline of options at different stages of development. The concept fits well with the financial tool of 'real options pricing'. The options are valued either with financial tools or using management judgement. As their value increases, more can be invested in them, the objective being to avoid investing too much in creating the options that will provide the solution to the renewal problem. The pipeline consists of:

- (1) a portfolio of ideas;
- (2) a portfolio of experiments;
- (3) a portfolio of ventures;
- (4) a portfolio of businesses.

These four portfolios match the four stages that take an idea from 'imagination', through 'testing', 'launching', and 'investing'. The skill is to move the options through the pipeline at the right speed, so matching the investment with the rate of customer acceptance and technical development.

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Part VI: Flexibility

Part VI contains three chapters associated with the concept of flexibility. Like the management of change, flexibility is a topic that seems always to be receding rather than arriving. As companies learn to be more flexible, the demands for flexibility seem to increase another notch, so that the prize is always out of reach. Flexibility also has a cost. Undoubtedly the best way of exploiting today's environment is to choose a strategy and build an organization that best fits with it. Unfortunately, the strategy and organization quickly become less than perfect as the environment, competitors, or strategic priorities change.

Powell, in Chapter 29, demonstrates how a successful strategy depends not just on what makes marketplace sense, but also on the response of competitors. Game Theory recognizes that a game takes place between the main players. In economist terms this is a theory that applies only to oligopolistic situations. In perfect or commodity markets there is no game. A game only exists where a few players can influence the decisions that the others take. Since success in oligopolistic situations is determined as much by the behaviour of competitors (remember that one of Porter's five forces is 'rivalry'), strategies need to be developed for the game as much as for the marketplace. Developing an advantage over competitors is only part of the battle. The other part is persuading the competitors to act sensibly.

Kogut and Kulatilaka, in Chapter 30, deal with real option theory. This is about decision-making in the face of options. It has been developed from finance theory and it involves analysing when to make a decision, rather than keep options open. Since new information is arriving all the time, there is a strong logic for avoiding choices until the last possible moment. Flexibility is gained by waiting. Investment decisions should not be made according to a planning cycle, but only when necessary. The trick is to calculate when a decision needs to be made.

Chapter 31 is by Volberda. He points out that 'there are several equally good ways to match high variety and speed of managerial capabilities with an adequate organization design to resolve the constructive tension between developing capabilities and preserving stability within the organizational conditions'. He develops a strategic framework of flexibility that identifies three drivers of the choice of flexibility solution. The drivers are the 'managerial task' (variety and speed), the competitive forces (dynamism, complexity, and unpredictability) and the organization design task (controllability). This leads to four types of organizational form—rigid, planned, flexible, and chaotic. The ideal is to have a mix of planned and flexible solutions. He claims that there are four ways of achieving this mix—the network corporation, the dual corporation, the oscillating corporation, and the balanced corporation. All of these are acceptable solutions to the flexibility challenge.

It is appropriate that we end with a discussion of flexibility. Few issues can be more perplexing. Probably the biggest source of flexibility is the market economy. It

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provides for birth and death in a way that ensures value destroying firms do not hold us back for too long, and new ideas and forms can quickly gain support. Are we even asking the right question as we pursue flexibility within the firm?

An alternative view is to rely much more heavily on the market. An analogy is that of the theatre business on Broadway. Each play is written, cast, and presented. Adjustments may be made to the script or the casting, but the basic play does not change: there is only incremental not transformational change. The play may have a run of a few weeks or several years, but at some time the audiences start to decline and the play is withdrawn. At that point the cast disperse, the director looks for a new script, and the theatre for a new play. The resources are put back into the marketplace and a new combination is created. In this way New York presents a stream of excellent theatre.

We could aim for a similar solution in business in general. Each organization would be built around a strategy and designed to fit that strategy as closely as possible. Once the strategy starts to fail, the organization should be dissolved and the resources recombined into other organizations. Flexibility within the firm would not even be a management preoccupation.

The purpose of this last example is not to try to undermine the work of all those mastering flexibility, but rather to point out that we are in the very early days of this particular topic. We should expect some radical twists in the road ahead, before we can claim to understand how to design an economic system that is nimble and responsive to the needs of all the stakeholders involved.

References

Ansoff, H. I. (1965). *Corporate Strategy*. New York: McGraw-Hill.

Bailey, A., and Johnson, G. (1992). 'How Strategies Develop in Organizations', in D. O. Faulkner and G. Johnson (eds.), *The Challenge of Strategic Management*. London: Kogan Page, 147–78.

Barney, J. B. (1991). 'Firm Resources and Sustained Competitive Advantage'. *Journal of Management*, 17/1: 99–120. [Link](#)

Bartlett, C. A., and Ghoshal, S. (1989). *Managing across Borders*. London: Hutchinson.

Brandenburger, A. M., and Nalebuff, B. J. (1995). 'The Right Game: Use Game Theory to Shape Strategy'. *Harvard Business Review*, July–Aug.: 57–71.

Caves, R. E. (1980). 'Industrial Organization, Corporate Strategy, and Structure: A Survey'. *Journal of Economic Literature*, 18: 64–92.

— and Porter, M. E. (1977). 'From Entry Barriers to Mobility Barriers: Conjectural Decisions and Contrived Deterrence to New Competition'. *Quarterly Journal of Economics*, 91/2: 241–61. [Link](#)

Chaffee, E. E. (1985). 'Three Models of Strategy'. *Academy of management Review*, 10/1: 89–98. [Link](#)

Chandler, A. D. Jr. (1962) *Strategy and Structure*. Cambridge, Mass.: MIT Press.

end p.23

Coase, R. H. (1937). 'The Nature of the Firm'. *Economica*, ns 4: 386–405. [Link](#)

De Wit, B., and Meyer, R. (1994). *Strategy: Process, Content, Context*. St Paul, Minn.: West Publishing.

Dixit, A. K., and Pindyck, R. S. (1994). *Investment under Uncertainty*. Princeton: Princeton University Press.

- Ghemawat, P. (1991). *Commitment: The Dynamic of Strategy*. New York: Free Press.
- Grant, R. M. (1991). *Contemporary Strategy Analysis: Concepts, Techniques, Applications*. Oxford: Blackwell Business.
- Hannan, M. T., and Freeman, J. (1989). *Organisation Ecology*. Cambridge, Mass.: Harvard University Press.
- Johnson, G., and Scholes, K. (1989). *Exploring Corporate Strategy* (3rd edn., 1993) London: Prentice-Hall.
- Kay, J. (1993). *Foundations of Corporate Success*. Oxford: Oxford University Press.
- Learned, E. P., Christensen, C. R., Andrews, K. R., and Guth, W D. (1965). *Business Policy: Text and Cases*. Homewood, Ill: Irwin.
- Mintzberg, H. (1973). 'Strategy Making in Three Modes'. *California Management Review*, 16/2: 44–53
- Mintzberg, H. and Waters, J. A. (1985). 'Of Strategies, Deliberate and Emergent'. *Strategic Management Journal*, 6/3: 257–72. [Link](#)
- Mintzberg, H. Ahlstrand, B., and Lampel, J. (1998). *Strategy Safari*. Hemel Hempstead: Prentice Hall.
- Nelson, R. R., and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Belknap Press.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. Oxford: Basil Blackwell.
- Porter, M. E. (1979). 'The Structure within Industries and Companies' Performance'. *Review of Economics and Statistics* 61: 214–27. [Link](#)
- Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.
- Porter, M. E. (1985). *Competitive Advantage*. New York: Free Press.
- Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May–June: 79–91.
- Quinn, J. B., Mintzberg, H., and James, R. M. (1988). *The Strategy Process*. London: Prentice-Hall International.
- Rumelt, R. P. (1982). 'Diversification Strategy and Profitability'. *Strategic Management Journal* 3: 359–69. [Link](#)
- Selznick, P. (1957). *Leadership in Administration: A Sociological Interpretation*. New York: Harper & Row.
- Teece, D. J., Pisano, G., and Shuen, A. (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18/7: 509–34. [Link](#)
- Tushman, M. L., and Anderson, P. (1986). 'Technological Discontinuities and Organisational Environments'. *Administrative Science Quarterly* 31: 439–65. [Link](#)
- Wernerfelt, B. (1984). 'A Resource-Based View of the Firm'. *Strategic Management Journal*, 5/2: 171–80. [Link](#)
- Whittington, R. (1993). *What is Strategy—and does it Matter?* London: Routledge.
- Williamson, O. E. (1975). *Markets and Hierarchies*. New York: Free Press.
- Williamson, O. E. (1985). *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York: Free Press.

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2 The History of Strategy and Some Thoughts about the Future ^{*}

^{*} This chapter is a revised and expanded version of **John Kay**, 'A Brief History of Business Strategy', in *id.*, *Foundations of Corporate Success* (Oxford: Oxford University Press, 1993), 337–63.

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David Faulkner

2.1 History

MUCH has been written about the strategies that firms, aiming at corporate success, should adopt. Our objective in this chapter is to describe the evolution of thinking about business strategy over the nearly forty years in which it has been identified as a distinct subject of study, and make some suggestions about its possible future development. We begin from the 1960s perspective in which strategy was largely equated with corporate planning, describe the 1970s emphasis on diversification and portfolio planning, and observe concern in the 1980s for concentration on the

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core business and the development of less analytic, more people-orientated approaches to management. We finish with thoughts for the future. We outline the conventional, now unfashionable, but nevertheless still dominant rationalist approach to strategic thinking—scan the environment, assess your strengths and weaknesses, formulate the strategy, and then go on to secure its implementation. But we also register the principal criticisms made of that approach. A common view today is that the formulation of strategy is easy, but the real issues and problems are those of implementation, and that the conventionally prescriptive approach to strategy ignores the degree to which strategy in real businesses is emergent rather than directed.

We accept that this is a justified critique of standard approaches to strategy, but that these approaches are themselves based on a misconception of what strategy for a business really involves. Such criticisms are appropriately directed at a wishdriven view of strategy which emphasizes leadership, visions, and missions. If this is strategy, then it should be no surprise that formulation is easy and implementation difficult, and also unsurprising that such 'strategy' has limited impact on what operating businesses actually do. Meaningful strategy is not a statement of corporate aspirations, but is rooted in the distinctive capabilities of the individual firm. When strategy is emergent in this sense, the distinction between formulation and implementation becomes far less.

We also comment more generally on the nature of research and thinking in the field of strategy, and suggest that the inability to distinguish sufficiently clearly between taxonomy, deductive logic, and empirical observation is responsible for the limited progress which has been made in the development of an organized framework for the study of business behaviour.

2.2 An Example of Strategy Development: General Electric

If the evolution of business strategy in the West was to be told by reference to the history of a single company, that company would be the General Electric Company of the United States (GE). GE has both led and followed every major development in strategic management over the last four decades. This evolution is closely associated with the four chief executives of the company over the period, each of whom has imposed his own personal sense of strategic direction on the company.

GE emerged from the genius of Thomas Edison, who made electricity a commercial product. By 1900 the company was involved in every aspect of the electrical

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business. Throughout the first half of the century, GE was responsible for an outstanding range of technical and product innovations, which led to the development of national broadcasting, the peaceful application of nuclear power, and the creation of a market in domestic electrical appliances. Today the company is a widely diversified conglomerate. Its largest business is aircraft engines, but it is also a major bank and financial services firm and is owner of one of the major US television networks, NBC.

In the 1950s and 1960s, GE's philosophy was one of decentralization to individual operating businesses. The departments, the critical unit of this decentralized management, were to be of 'a size that a man could get his arms around' (Ralph Cordiner, chief executive, 1953–60). GE established a large management training centre at Crotonville, designed to create general managers who would transcend functional

specialisms, and the principles of general management were enshrined in the company's famous 'blue books'.

Towards the end of the 1960s, some weaknesses in this system were identified. In particular, the planning functions of the corporate centre were poorly related to the activities of the operating businesses, the centre's capacity to review their plans effectively was very limited, and the attempt by each departmental head to expand the size of his own empire was seen as having led to profitless growth for the corporation as a whole. Following a McKinsey report in 1969, GE created 'strategic business units' (SBUs). A smaller number of operating businesses were each to be responsible for their own strategic planning.

The central function was now to be portfolio planning—the allocation of resources between strategic business units. GE became one of the first diversified businesses to divest as well as to acquire, although the purchase of new businesses was also a key part of the portfolio planning approach. In 1976 GE made what was then the largest acquisition by a US company, with the purchase of Utah International, itself a diversified energy and resources business. With strategic planning at the centre of the agenda for each of forty-three business units, the day of the strategic planner, and the strategy consultant, had truly arrived. Slightly later this process was to become known as Corporate Strategy and distinguished from its brother Competitive Strategy, the prime concern of which was to identify and help the achievement of 'sustainable competitive advantage' for an SBU.

But there were still limitations on the capacity of GE's corporate centre to review forty-three strategic business units. Nor was it clear where in the organization major new business opportunities were to be identified. So in 1977 the strategic business units were consolidated into six sectors. The centre was to take more responsibility for corporate planning, layers of planning staff were removed, and 'arenas' of business development were identified. In acknowledgement of the force of Japanese competition, the international arena was given particular emphasis.

For Jack Welch, who became chief executive in 1981, vision was central to strategy. 'Good business leaders create a vision, articulate the vision, passionately own the

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vision, and relentlessly drive it to completion' (Tichy and Charan 1989: 113). The key elements in Welch's own vision were two: 'We will run only businesses that are number one or number two in their global markets', and 'In addition to the strength, resources and reach of a big company... we are committed to developing the sensitivity, the leanness, the simplicity and the agility of a small company' (GE annual report 1988). In pursuit of these objectives, GE rearranged the corporate portfolio. 'We started out with 411,000 employees. We acquired an additional 111,150 employees. Through divestitures, we reduced by 122,700 employees. We restructured, or down-sized to get more efficient, reducing by some 123,450 employees. Now we have 276,000. Enormous in and out' (Welch, quoted in HBS 1989). Welch acquired the nickname 'Neutron Jack' after the neutron bomb, which destroys people but preserves property.

In 1988, however, Welch felt that the stock market was insufficiently appreciative of the company's performance. 'We're not sure why this is the case, but it occurs to us that perhaps the pace and variety of our activity appear unfocused to those who view it from the outside' (GE annual report 1988). The company began a programme of repurchasing its shares, but more important for strategy was a new Welch initiative, 'Work-out at GE'. 'Work-out is allowing self-confidence to flourish around our company. As that self-confidence grows, the boundaries are beginning to fall; and as they fall, GE is picking up speed, and with that speed a competitive advantage. Some people are uncomfortable with this soft stuff and press us to quantify it.' 'In a boundaryless company, suppliers aren't outside. They are drawn closer and become trusted partners in the total business process... in a boundaryless company, internal functions begin to blur' (GE annual report 1990). Behind the florid metaphor and business buzzwords, there is a recognition of the role of relational contracting in facilitating flexible response and the development of organizational knowledge.

These themes that run through GE's development—the cycles of centralization and decentralization, the shifting role of the corporate centre, the steady move from 'hard', quantified concepts of planning to looser, organizationally based ones, are exactly paralleled in the literature of business strategy. Has the result been a more successful company? There are two perspectives on GE's performance. Over a long period, the GE share price tracks the Standard and Poor's index extremely closely, but on balance there is evidence of slight outperformance. As managers of a diversified portfolio of US businesses, GE is ahead of the market and the executives of GE have beaten the average mutual fund.

There is a different view. Computers and consumer electronics have been among the fastest growing and exciting new business opportunities of the last fifty years, and GE, once dominant in US markets for all kinds of electrical equipment, has failed in both of them. Perhaps the company enjoyed no relevant distinctive capabilities; or perhaps, despite the unquestioned abilities and sophistication of its managers and management systems, it failed fully to identify and exploit them.

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'When Japanese managers come to visit us, they don't ask to see our research centers or manufacturing facilities. All they want to know

about is our management systems' (anonymous GE executive, quoted in HBS 1981). This chapter describes the thinking behind the management systems that GE has successively adopted.

2.3 The Rationalist School

The sheer volume of information which a company can assemble, both about its environment and about itself, is daunting. The first problem which the descriptive phase of strategy formulation must confront is how to organize this mass of data. The earliest processes of strategy formulation were closely linked to corporate planning.

2.3.1 Assessing the Environment

Formal planning procedures typically grew out of the budgeting process, which is a key control mechanism in most firms. The budget normally covers revenues and expenditures, cash incomes and outgoings, requirements of labour and of materials. The plan extends these projections forward. In the earliest days of planning, this was often done by simple extrapolation. More sophisticated planning procedures were then developed to take account of the firm's expectations of economic growth, the probable development of its markets, and its own established plans and intentions.

Any well-run firm must have some planning process of this kind. Many important corporate inputs—people, plans, accommodation, finance—cannot be turned on and off as markets evolve, but have to be projected, determined, negotiated years ahead. The firm needs forecasts of these requirements and these forecasts are an essential input to management decisions (Argenti 1965). But planning is not strategy, and those firms which believed that by describing the future—often in very considerable detail—they had taken major steps towards making it happen, often found the results of their planning rounds a disappointment. Elaborately quantified corporate plans lay gathering dust on the shelves of managers who went on making the decisions they would have made had the plan never existed. Increasingly sceptical appraisals can be found in Ansoff (1970) and Lorange (1979), amongst others.

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The 1960s, the heyday of such corporate planning in business, was also the time when similar processes were adopted by governments in many countries. French planning was widely admired, Britain adopted a National Plan for its economy, and every newly independent country saw economic planning as the key to future development. The results were, in the main, as unsatisfactory for governments as for corporations.

Planning goes beyond forecasting and begins to become a basis for strategic choices when it encompasses a variety of possible outcomes. One very deliberate approach to this issue is scenario planning (Wack 1985), a widely used technique but one particularly associated with Shell. The company invites its group planners to speculate freely on diverse, internally consistent views of the future of the business within the world economy. For Shell, as for other corporations which adopt similar approaches, often in a less formal way, scenarios are a means of organizing their thinking about the environment they face, and of beginning to formulate an agenda of strategic alternatives. What would the company do if the oil price fell to \$10 per barrel? How would it react if economic growth were much slower in the 2000s than in earlier decades?

The development of a model of the business environment is a means both of forecasting the future of the business and assessing how that future might be influenced by internal or external developments. These types of model, which are designed to simulate the functioning of a complete system, may describe an operating business, or the firm itself, or, as with large macroeconomic models, even a whole economy. The objective of these models is to describe a more complex set of interactions and feedback than can be handled intuitively or with the aid of analytic models. In this way a simulation model can allow the free-ranging speculation of alternative scenarios to be combined with the apparent precision of outcomes associated with the corporate plan. The relationships of the model may be deterministic, as in a financial planning model, where many of them will be dictated by accounting identities. They may simply be imposed, as in the style of modelling associated with System Dynamics (Forrester 1961). They may be estimated, statistically or econometrically, from extended time series of data, as in macroeconomic models and their business counterparts.

Such modelling began in the 1960s but has become increasingly widespread as databases and spreadsheets, sophisticated specialist modelling languages, and the universal availability of computers have made it possible for every executive to be his own model builder.

But these models are no more than ways of assembling data and analysis as a background to strategic decisions. Models cannot be relied on to forecast the future and even large econometric forecasting models, whose results are widely used even if widely disparaged, are essentially systems of managing information and making judgements rather than true representations of real economies.

The technological optimism of the 1960s—the belief that management was a process which could one day be defined with sufficient precision to be entrusted to a

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computer—has now sharply diminished. Yet the role which information technology in general and modelling in particular can play in business is still widely misunderstood. The world of business is too complex ever to be adequately described by any model. This observation, trite and obvious as it is, prompts two opposed, but equally mistaken, reactions.

The simpler response is to reject the analytic model altogether. But intuitive responses and judgements are not always right, and whether they are right or wrong they are always the product of some implicit model. Typically that model or theory is based on a previous experience of an analogous situation, or series of situations, or some incompletely articulated view of competitive behaviour or supplier response. The merit of the model—the explicit process of deductive reasoning—is that it forces this process into the open, spells out the assumptions on which it is based, and identifies those features of reality to which its conclusions may be sensitive. This process may reinforce or reject the initial judgement, or more often facilitate a better appreciation of what it involves.

An alternative, and more subtle, error is the successive complication of the model in an endeavour to capture a larger fraction of the complex reality. The weakness of this approach is that beyond a certain, quickly reached, point the additional descriptive value is slight while the cost in terms of the real objective—a better appreciation of the analytic structure of the relevant relationships—is high. The model, which requires many hours to run and which neither forecasts reality in a way which users find credible, nor describes a set of relationships which they can readily understand, falls squarely, and uselessly, between two stools.

Such formal approaches to analyse the environment proved unattractive to many managers. Some were simply frightened of the technique, others sensed its limitations. Corporate plans seemed sterile documents, irrelevant to daily operating decisions, scenarios the province of distrusted eggheads, models the playthings of computer buffs. More qualitative ways of organizing relevant data were needed (Mintzberg 1973). Many of these techniques were provided by consultants.

The portfolio planning matrix (Hedley 1977) and the product life cycle (Levitt 1965) are examples of these tools. They enable managers to categorize their business as cash cows, dogs, or stars, to identify phases of growth, maturity, and decline. They are organizing frameworks which facilitate comparison of the different businesses in a corporate portfolio or different products in a business portfolio. Portfolio planning and the product life cycle are means of organizing information about markets and about demand. Other tools are relevant to production and supply. The McKinsey business system, later to be developed as Porter's value chain (Porter 1985), is a means of describing the successive phases of a production process and analysing the determinants of costs (cost drivers) in a framework whose objective is support for commercial decision-making rather than accounting allocation. Such techniques were used to identify key success factors—points in the production process at which the firm might succeed, or fail, in adding value to its output.

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The corporate planners of the 1960s and 1970s were much concerned with issues such as the market and macroeconomic environment, the product portfolio, and the product life cycle. All of these emphasize characteristics of industry or sector and market. They tended to underplay the role of competitors and competitive behaviour in influencing outcomes. Indeed, it is still common to see plans which base output growth on forecasts of the market, or to observe industries in which each individual firm extrapolates its own experience to give overall results which everyone knows are incapable of realization.

Porter's (1980) 'five forces' of competition—rivalry, entry, substitution, suppliers, and customers—offered a more comprehensive checklist of environmental factors. By the early 1980s, competitor analysis had often replaced, or at least supplemented, environmental analysis. The BCG portfolio matrix, whose dimensions in the 1970s were market growth and relative market share, was transformed in the 1980s into the strategic environment matrix, which mapped the number of sources of competitive advantage against the size of that advantage.

2.3.2 Formulating a Strategy

Having reviewed the business environment and its competitive position, the firm must go on to formulate its strategy. The rationalist school sees the definition of the objectives of the firm as the key element in strategy formulation. That view, which owes much to the continuing influence of Drucker on management thinking, is in itself relatively uncontroversial, but the subject of considerable operational difficulty. A firm needs both corporate objectives—what business should we be in?—and business unit objectives—how should the firm

position itself relative to its competitors in its chosen markets?

There are two distinct historical phases in the evolution of thought on corporate strategy. Until the early 1980s, the primary aim of corporate strategy was the creation of a diversified business portfolio. Such a portfolio might encompass related diversification—motivated by synergy between old and new businesses— and unrelated diversification—supported by portfolio planning techniques. But by the early 1980s, evidence had accumulated that unrelated diversification added little value and many of the conglomerates created in these earlier decades had succumbed to financial pressures. TRW and Litton Industries were singled out for special praise in Ansoff's readings on business strategy (1969), and ITT was perhaps the most widely admired of conglomerates. By 1980 Litton was broke and TRW and ITT decidedly out of fashion and favour.

Attitudes changed. The trend of the 1980s was one for focus on the core business; 'stick to the knitting', in the graphic phrase used by Peters and Waterman (1982). Debate on corporate strategy then centred on a view of what the core business is. Is a

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computer company a manufacturing business, or a provider of information management systems? Is a brewer in beer or in leisure? But experience has led railroads to no longer wish to be seen as transportation companies. Yet the criteria of relatedness have remained poorly defined. Indeed, one influential contribution (Pralhad and Bettis 1986) proffers 'dominant logic' as the key criterion; loosely interpreted, a business is related if you think it is and can defend this in some rational way.

In formulating business strategy, the 'experience curve' popularized by the Boston Consulting Group led firms to focus on the critical importance of market share. This emphasis was reinforced by the observation in the PIMS database of a strong positive correlation between market share and returns. PIMS also identified a correlation between relative product quality and return on investment. With the awakened, or renewed, emphasis on competitive issues, the choice of market position was seen as a central element in strategic decision-making. Quality, it was perceived, had been a key ingredient in Japanese success. Over time most markets moved up the quality spectrum. With the aid of phrases such as 'quality is free' (Crosby 1979), 'total quality management' became a preoccupation of the later 1980s. No one questioned the direction of causality. Was it high market share that led to high profitability, or did very profitable companies inevitably succeed in achieving high market share? And what is the appropriate way to define a market? Is Rolls-Royce in the automobile market or the luxury goods market? It makes a difference to the analysis.

Many authors offered taxonomies of generic strategies—checklists from which corporations could choose the most relevant objectives for particular markets. One early list was proposed by Ansoff (1965), who identified market penetration, product development, market development, and diversification as alternative strategic objectives. The Boston Consulting Group's alternatives are invest, hold, harvest, divest; and Arthur D. Little offers a list of no less than twenty-four strategic options. Porter's (1980) classification of generic strategies proved particularly influential. In Porter's framework there are two dimensions of choice. Firms can pursue either cost leadership—the same product as competitors, but at lower cost—or differentiation. They can range narrowly, or broadly, thus generating a range of alternatives encompassing cost leadership, differentiation, and focus.

Thinking in the 1980s came to support simple crisp statements or objectives in terms of the corporate vision (Campbell and Yeung 1990) or an assertion of 'strategic intent' (Pralhad and Hamel 1985). Today, a debate on the content of the corporate mission is a common starting point for a discussion of strategy. Such a statement can cover objectives in both corporate and business strategy. The mission statement is intended to provide a link between the broad objectives of the firm, which may focus exclusively on profit maximization, or may assert concern for other stakeholders, and its specific commercial activities.

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A rather different critique of these processes of rationalist strategy formulation—yet one still very much within the rationalist framework—is provided by the shareholder value movement. As with many shifts in thinking about strategy, this is found more or less simultaneously in the thinking of practitioners and the writings of business school academics. American business was stunned in the 1980s by the emergence of a group of corporate raiders. Figures like T. Boone Pickens and the partners of Kohlberg Kravis Roberts, with little in the way of resources of their own, but with the aid of the 'junk bond' financing pioneered by Michael Milken, could make credible bids for some of the largest corporations in the United States. This threat to incumbent managers led to anxious re-emphasis on major companies' concerns for 'shareholder value'. Academics (Rappaport 1986) were led to explain and justify it, providing both a critique of accounting earnings as a focus of corporate attention and a rationale of the public benefits of exclusive focus on the interests of shareholders.

The most important practical consequence of this activity was to give further impetus to the break-up of conglomerate firms. The grouping of unrelated businesses tended, it was argued, to conceal the potential strategic value of individual components to specific purchasers. That message for corporate strategy was clear, but for business strategy, shareholder value had few clear implications. Proponents

stressed the need to evaluate investment and acquisitions by reference to their expected cash flows—but this is a theme familiar from every elementary text in corporate finance—and texts on strategy in a shareholder value framework do no more than juxtapose Rappaport's critique with Porter's taxonomies of competitive forces and generic strategies.

The threat to established US corporations in the 1980s came not only from changes in the capital market. American business attitudes were also transformed by the force of competition from Japan, particularly in automobiles and consumer electronics but across an increasingly wide range of products. For some writers, this penetration itself reflected the malign effect of rationalist strategy on US business (Abernathy, Clark, and Kantrow 1983). The globalization of markets was a reiterated theme and no self-respecting corporation could be without its global strategy. International management indeed became a subject in its own right.

As the 1990s began, the state of the art in rationalist strategy involved the formulation of a statement of company objectives, often encapsulated in a 'mission statement' and encompassing both corporate strategic objectives—what sort of business are we in—with business strategic objectives expressed in terms of plans for market share, product quality, and geographical scope. It is not surprising that attention was moving from the problems of formulating strategy to issues of implementation.

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2.3.3 Copycat Strategy

There is a mechanism for formulating strategy which is apparently simpler than selecting from a menu of generic strategies in the light of a well-formulated assessment of the business environment. That is to look at what other firms do, and copy it. This strategy is more felicitously expressed as adopting best practice.

This strand of strategy has two primary threads. One is the product of Western concern, and admiration for, the success of Japan in certain manufacturing sectors. Observers are inclined to seize on some particular characteristic of Japanese practice—just-in-time management of inventories, for example—and advocate its widespread adoption. The current management preoccupation with quality owes much to this. The other thread results from the inevitable desire of the number two, or number three, firm in an industry to be number one. How better to become number one than to be like number one?

But copycat strategy encounters fundamental problems. The Japanese comparison makes one particularly evident. There are many features—some cosmetic and peripheral, some fundamental—which distinguish the functioning of Japanese and European industry. But which are which? And which superficially cosmetic factors are truly supportive of fundamental ones? Someone aspires to be a great violinist. He goes to a concert, and sees a great violinist in evening dress, with an expensive violin, drawing a bow across it. So he dons evening dress, buys an expensive violin, and draws a bow across it. The factors that truly make the great violinist great are not those which are most apparent to the casual observer.

Any attempt at imitation faces that issue, but there is also a second problem which is particular to business strategy. In most fields of human endeavour, one person can do something well without inhibiting the ability of anyone else to do the same thing equally well. You can be a good driver, or golfer, or singer without any detriment to anyone else's ability to drive, or golf, or sing. Indeed, these skills are usually mutually enhancing. But successful strategies are necessarily individual to the particular firms which adopt them.

2.3.4 Implementing Strategy

Chandler's findings addressed the implementation of strategy directly. Structure follows strategy, he argued, and since then corporation after corporation has rearranged its structure, and rearranged its structure again, in line with changes in its own strategy and in response to changing patterns of strategic thought.

Chandler drew particular attention to the development of multi-divisional forms of organization in response to the increased complexity and diversity of large corporations with multiple activities. Traditionally, firms had decentralized

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functionally, to accounts departments, marketing groups, and other collections of specialist skills. The multi-divisional firm decentralized by type of business activity, so that each operating business would have its own accountants, and its own marketeers.

But if operating businesses are treated as independent units, what is the corporate centre for? There are several answers. One sees corporate strategy as the key central function. Here the task of the centre is to identify and derive synergies from the distinct divisional activities, and to satisfy the corporate needs of allocating resources and controlling the corporation in an overall sense. The corporate centre may also act, in effect, as an internal consultancy unit on business-level strategy. While Sloan's General Motors sought to exert both functions centrally, more recently, as in General Electric, business unit strategy was pushed down to business unit level. If there are also substantive interactions between these distinct divisions, the company is driven towards a matrix form of organization, in which functional groupings coexist with, and across, divisional boundaries.

The diversification of the 1960s and 1970s led many more companies to pursue multi-divisional structures. As in General Electric, the degree of central control exercised was sometimes tightened, sometimes relaxed, in ways which sometimes reflected simply a desire for change, sometimes a revised assessment of the balance of advantages. In the 1980s, the very clear tendency was to decentralize, stripping back the corporate centre to minimal levels, even to that of a passive holder of shares in operating businesses. Central functions like finance, treasury, and planning were pushed down to lower levels. These moves cast further doubt on the value of the centre, and often firms concluded that there were parts of their business to which the corporate function could add no value. Divestment of peripheral businesses became common.

But the implementation of strategy is concerned not only with the structure of a firm's activities, but with their style. Burns and Stalker (1961) associated relatively mechanistic, routinized management regimes and well-organized reporting lines with stable strategies and environments, contrasting these with more organic, confused management approaches relevant to more rapid change. These links between strategy and structure have been explored further by many other writers. Mintzberg (1983) identifies five broad organizational categories—simple structure, machine bureaucracy, divisionalized form, professional bureaucracy, and adhocracy, effectively adding simple structure (typically the small owner-managed firm) to Burns and Stalker's classification and subdividing their mechanistic style.

As these typologies became elaborated, there was increasing recognition that structure does not only follow strategy. Structure is itself a determinant of strategy. The essentially interactive nature of this relationship is a theme of Child's (1974) and is one developed in Miles and Snow (1978), who distinguish prospectors and defenders. The prospector seeks out a changing environment, the defender looks to a stable one. From a quite different perspective, the work of Nelson and Winter

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(1982) reaches analogous conclusions. They envisage the evolution of business as essentially a process of natural selection, in which only structures well adapted to their environment survive.

From these perspectives, however, strategic thinking no longer runs unambiguously from environmental assessment through strategy formulation to the process of implementation. If the causal relationship between strategy and structure works in both directions, it may be as feasible to determine the strategy by defining the structure as it is to choose the structure to match the strategy. This is implicit in the 'excellence' identified by Peters and Waterman (1982), who focus on the internal attributes of the organization—shared values, 'loose-tight' organization—and anticipate that the excellent firm will find environments appropriate to the exploitation of its excellence. It is a line of thinking developed in the burgeoning literature on corporate culture. At this point, the rationalist approach in which strategy is devised for the organization gives way to a view of strategy which sees it as derived from the organization.

2.4 Critics of Rationalism

Dissatisfaction with the rationalist school became widespread. That dissatisfaction centres, in one way or another, around issues of implementation and there is a growing literature on that topic (Hrebiniak and Joyce 1984). The agendas of fashionable consultants and trendier business schools are increasingly filled with related issues—the management of change, the evolution of corporate culture, coping with a turbulent environment, the institution of programmes of total quality management. Rationalism is in retreat, but by no means routed, principally because of the absence of equally well-articulated alternative frameworks. The management of change is important, to be sure, but there are logically precedent questions of what change, and why.

One expression of this dissatisfaction is the commonly expressed view that 'strategy formulation is easy, it is implementation that is difficult'. Such a statement reveals much about the weaknesses of the ways in which rationalist strategy has developed. This implied distinction between strategy and implementation rests on a misconception, as the military analogy reveals. Was Napoleon's defeat in Russia a failure of strategy or of implementation? It hardly makes sense to ask the question because in the hands of a skilled strategist formulation and implementation are inextricable. But if strategy is nothing more than a vision, a mission statement, an expression of aspiration—and that is often what it is—then it is hardly surprising

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that it seems easy to formulate strategy and hard to implement it. One might as well say that Saddam Hussein had a fine strategy—defeat the US Army in pitched battle and so conquer the oil reserves of the Middle East—but there were failures in implementation; and that is what he did say to his unsuccessful generals before executing them. If the formulation of strategy amounts to little more than the statement of objectives, then all the interesting and important issues of strategy have been redefined as problems of implementation. But this results from a misunderstanding of what strategy is, not from a real characteristic of the business environment.

A related critique is particularly associated with Mintzberg. It stresses the need to consider the strategy process, rather than to address the choice of strategy itself. Thus, 'One cannot decide reliably what should be done in a system as complicated as a contemporary organization without a genuine understanding of how that organization really works. In engineering, no student ever questions having to learn physics; in medicine, having to learn anatomy. Imagine an engineering student's hand shooting up in a physics class. "Listen, prof, it's fine to tell us how the atom does work. But what we want to know is how the atom *should* work"' (Quinn, Mintzberg, and James 1988).

The analogy is instructive both for the elements in it which are right and for those which are wrong. It is right to emphasize that fundamental knowledge is a prerequisite to practical application. A competent engineer must first learn physics. Imagine the student who shouts, 'stop wasting our time with the theory of the atom, we came here to learn how to make nuclear bombs,' and then note that equivalent statements are made every day by managers and business school students impatient for what they suppose to be practical knowledge. The position is aggravated by the high reputation of many educators who are happy to illustrate the relevance of their material by showing their classes exciting pictures of nuclear explosions, winning their approbation but communicating nothing of any value. Practical knowledge which is not based on some more fundamental analysis is usually knowledge of only the most superficial kind.

But although it contains that element of truth, the analogy above is essentially false. The views of the student, or the instructor, on what the structure of the atom should be like are matters of no conceivable interest, since neither of them has any power to influence it. It is quite realistic, however, to suppose that businessmen can influence strategy, and it is the prospect that they might do so which is their principal reason for studying it. Observation of the strategy process, and the prescriptive analysis of what strategy should be, are both proper questions, and legitimate subjects of study, but they are distinct questions. In just the same way, the issue of how the European Community makes its decisions through the mechanisms of the Commission, Parliament, and the Council of Ministers, is distinct from the issue of what its decisions should be. And while you must understand both if you are to influence policy, it is the second group of questions

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—what the decisions should be—which are of most general interest. The same is true of strategy.

2.5 Emergent Strategy

But the study of the strategy process does give further insight into the failings of rationalist strategy. Successful firms often seem to have achieved their position without going through the processes of analysis, formulation, and implementation that the rationalist school implies. Indeed, the story of Honda's attack on the US cycle market is often used to illustrate precisely that point. The notion that successful strategies are often opportunistic and adaptive, rather than calculated and planned, is a view as old as the subject of business strategy itself. One of the best expressions of it is Lindblom's (1959) exposition of 'the science of muddling through'. Lindblom wrote from a perspective of public administration, rather than business administration, and stressed how the political constraints on policy make a rationalist approach impossible. He argued that the range of options attainable at any time was necessarily limited, and contrasted what he called the 'branch' method of 'successive limited comparison' with the 'root' method of comprehensive optimization.

In his popular volume of readings, Ansoff reprinted Lindblom's views, but more, it appears, to expose heresy than to commend it. 'Lindblom is wrong when he claims the "root" method to be "impossible"...The TRW experience shows how one of the world's most dynamic corporations goes about a methodical exploration of wide vistas... nevertheless, Lindblom's article is instructive, since it describes a widely prevalent state of practice in business and government organisations' (Ansoff 1969: 10). Twenty years later, that widely prevalent state of practice is still with us, but the argument perhaps more open than it was. Lindblom's perspective is most extensively developed by Cyert and March (1963). They deny that organizations can sensibly be viewed as entities with personalities and goals like those of individuals. Firms are better seen as shifting coalitions, in which conflicting demands and objectives are constantly but imperfectly reconciled, and all change is necessarily incremental. In this framework, rationalist strategy, in which senior management chooses and imposes a pattern of behaviour on the firm, denies the reality of organizational dynamics.

The implications of this for strategy are developed by Mintzberg and Waters (1985), who contrast deliberate and emergent strategy. The former is the realization of the rationalist approach, the latter the identification of relatively systematic

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patterns of behaviour in what the organization actually does. Essentially, the same features distinguish the adaptive mode of strategic decision-making from the planning mode. In the former, 'Clear goals do not exist...the strategy-making process is characterised by the reactive solution to existing problems... the adaptive organization makes its decisions in incremental, serial steps' (Mintzberg 1973). By contrast, planning involves, 'Anticipating decision-making... a system of decisions... a process that is directed towards producing one or more future states' (Mintzberg 1973).

As a description of how real organizations operate, this critique is so obviously compelling that at first it is hard to see why the rationalist school of strategy remains influential. But the reasons why it does are clear enough. Apart from a few disinterested scholars, people study and analyse strategy because they want to know what to do. To observe that organizations are complex, that change is inevitably incremental, and that strategy is necessarily adaptive, however true, helps very little in deciding what to do. Managers wish to be told of a process which they can at least partially control and, whatever its weaknesses, that is what rationalist strategy appears to offer.

For some, the nihilist conclusion of the critics deals with the matter. Firms do what they do because they are what they are, and the strategy process is one which one can observe, describe, but for which it is not possible to prescribe. This seems to be the view taken by Pettigrew in his theoretical argument (Pettigrew 1977) and in his massive history of ICI (Pettigrew 1985). Mintzberg offers at least a partial answer in his article on crafting strategy.

Imagine someone *planning* strategy. What likely springs to mind is an image of orderly thinking; a senior manager, or a group of them, sitting in an office formulating courses of action that everyone else will implement on schedule. The keynote is reason—rational control, the systematic analysis of competitors and markets, or company strengths and weaknesses. ... Now imagine someone *crafting* strategy. A wholly different image likely results, as different from planning as craft is from mechanization. Craft involves traditional skill, dedication, perfection through the mastering of detail. (Mintzberg 1987: 66)

The metaphor has further implications. The skills of the craftsman are acquired, not from books or lectures, but from observation of the behaviour of established craftsmen. The case-study technique of the business school even finds its parallel in the minor works of the apprentices which preceded the masterpieces of the skilled craftsmen.

Yet at this point the use of metaphor has got wholly out of hand. Strategy is necessarily incremental and adaptive, but that does not in any way imply that its evolution cannot be, or should not be, analysed, managed, and controlled. Neither Lindblom nor Cyert and March had any doubts on that score, and the process of 'successive limited comparison' which Lindblom described is a highly rational process; he underplayed his argument, and perhaps misled some readers by describing

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it as 'muddling through'. Indeed, it may be that we are, at least subconsciously, under the grip of a more powerful metaphor, i.e. the contrast between grand design and natural selection as accounts of the origin of species. Thus, there is an artificial polarization between a view of the world which sees it as potentially wholly receptive to rational control and planning and one in which events fall as they will. Although biological evolution is not one, the world is full of adaptive, incremental processes where that adaptation is subject to partial, but imperfect, control—processes ranging from travelling in space to boiling an egg. If we must use analogies we should look there, and learn about guided adaptation and managed incrementalism. In this framework, the false dichotomies between the implementation and the formulation of strategy, between rational analysis and incremental evolution, and between analytic and behavioural approaches, quickly fall away.

2.6 The Content of Business Strategy

The subject of strategy which we have described exhibits the characteristics of an emerging discipline, not yet rigorously characterized by a widely accepted organizing structure and a growing body of consistently researched empirical knowledge. Indeed, the strongly commercial orientation of the strategy business itself conflicts directly with this objective. The traditions of scholarship demand that each author should explain carefully how his or her contribution relates to all that has gone before; the dictates of profit suggest that consultants should dismiss somewhat cavalierly the theories of their rivals and proffer their own nostrums as the one true solution.

The best and most familiar example of an organizing framework is SWOT analysis—the definition of the strengths, weaknesses,

opportunities, and threats which the business faces. SWOT is simply a list. It conveys no information in itself, but it is a way of helping us to think about the information we already have. And for a busy manager, confronted by endless everyday pressures and unused to standing back to think about longer-term issues, it is a particularly useful list, as demonstrated by its continued popularity.

It is easy to generate lists, and the literature of business strategy is full of them, few of which stand the test of time. An organizing framework can never be right, or wrong, only helpful or unhelpful. A good organizing framework is minimalist—it is as simple as is consistent with illuminating the issues under discussion—and it is memorable. That is why alliteration is favoured (the seven S framework of

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McKinsey, or the five forces of Porter, or the four Ps of the marketing men). A good list is usually between three and five items long (two is hardly a list, six is too many to remember).

A model is a more sophisticated organizing framework. It goes beyond mere listing of items and contains premisses and deductions. The Prisoner's Dilemma is such a model. It, too, is minimalist. It focuses starkly on the problem of cooperation, and all real life problems are more complex. Because of its deductive structure, this model, and even the simplest of models, is more complex than a list. But in a good model, such as the Prisoner's Dilemma, the additional complexity is compensated by the greater insight it conveys. A useful model is a way of learning about processes and interrelationships and so goes beyond the mere structuring of existing knowledge. The suitability of the model, like the value of the list, is determined by the extent of its application, and it is the continued and widespread use of the Prisoner's Dilemma framework across biology, economics, sociology, and psychology after thirty years which indicates that this is, indeed, a good model. Like a useful list, a useful model is also memorable, and memorability is achieved here by the colourful story of the two prisoners in separate cells.

The organizing framework provides the link from judgement through experience to learning. A valid framework is one which focuses sharply on what the skilled manager, at least instinctively, already knows. He is constantly alive to the strengths, weaknesses, opportunities, and threats, which confront him. He understands that cooperative behaviour cannot simply be assumed, or exhorted, but requires the support of an explicit incentive structure or the expectation of a continued relationship. For both, a successful framework formalizes and extends his existing knowledge. For the less practised, an effective framework is one which organizes and develops what would otherwise be disjointed experience.

Business strategy also benefits from the accumulation of empirical knowledge. Chandler's hypothesis that organizational structure follows strategy falls into this category. As framed by Chandler, reflecting the histories of a limited number of US corporations, it must remain a hypothesis. Validation can be achieved only by reference to a much wider body of data but, as subsequent research has deepened our understanding of the evolution of modern business, Chandler's hypothesis has stood up well. There are many other ways of testing arguments. The most extensive body of empirical information on strategic issues is the PIMS database, which reflects the anonymous experience of over 7,000 business units. Two empirical findings stand out from that research—the association between profitability and market share, and that between quality and return on investment.

The development of frameworks and the accumulation of empirical knowledge go together. There is simply too much information about business available for it to be interpreted without some extensive conceptual structure. So the PIMS observation on the association of high profitability with high market share cannot be interpreted without a view of what defines a market, and it is to the credit of the

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PIMS researchers that they have a clearly specified view on this. The 'served market' is what is supplied by the group of firms which the business, subjectively, perceives as its competitors.

However, the valid interpretation of empirical data in a complex world also requires the support of a model and a theory. Certainly it would be wrong to infer from the PIMS findings that increasing market share is either necessary or sufficient to increase profitability. Here it was suggested that competitive advantage tended to be associated with both high return on investment and high market share—that the relationship was indirect rather than causal. But the same relationship could be interpreted in many other ways. The choice between these interpretations depends on specifying hypotheses and testing them by reference to other observations and further data.

Frameworks, models, and taxonomies can never, in themselves, be prescriptive. We may note that men are either fat or thin as we can identify decentralized or matrix organization, and while these are often helpful ways of describing the world, neither observation tells us what any individual or firm should do. If we add the empirical finding that fat men die prematurely, or that matrix organizations are unsuccessful in particular types of industry, then we have findings we can apply in practical situations.

These observations about the nature of knowledge are scarcely new. It is more than two centuries since the Scottish philosopher David

Hume spelt them out. 'If we take in our hand any volume... let us ask, "Does it contain any abstract reasoning concerning quantity or number?" No. "Does it contain any experimental reasoning concerning matter of fact or existence?" No. Commit it then to the flames; for it can contain nothing but sophistry and illusion' (Hume 1748). Yet it is clear even today that there is much in the literature of business strategy that Hume would have consigned to the flames. Most of all, the view that the construction of lists—the dominant methodology of strategy—is an activity which has empirical content or can form the basis of recommendations for action is one which is widely held and clearly erroneous.

2.7 Contingency and Resource-Based Approaches to Strategy

Starting from the original work of Burns and Stalker (1961), contingency theory emphasizes that there is no best form of organization and that organizational success rests on matching the organization to its environment. There is a striking

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congruence here between the sociological tenets of contingency theory and the financial economist's efficient market perspective, which argues that there can be no universal prescriptions for success since, if there were, their general adoption would reduce their value to everyone. These two approaches taken together lead directly to the conclusion that it is the creation and maintenance of distinctive capabilities which is at the heart of successful strategy.

The successful match of organizational structure and environment is not, in itself, a source of competitive advantage; it is a necessary, but not sufficient condition. Banking demands a mechanistic structure—the decentralized processing of millions of daily transactions under common procedures simply cannot be managed in any other way. But the sources of competitive advantage in banking are to be found elsewhere, in reputation and in the architecture of lending relationships. Mechanistic structures are, by their very nature, replicable, but certain types of organic structure, e.g. those here identified with architecture, are not. Contingency theory, given its origins, naturally stresses the organizational contribution to distinctive capabilities.

The contribution of economics to our understanding of distinctive capabilities is both to broaden and to narrow the range. It broadens it in importing factors which are not behavioural, but which nonetheless contribute to competitive advantage, emphasizing particularly the role of strategic assets. It narrows it by focusing attention on characteristics of the organization which are both appropriable and irreproducible. This latter emphasis is missing in the very wide range of distinctive competencies identified by Snow and Hrebiniak (1980).

The necessary irreproducibility of capabilities which yield sustainable competitive advantage has been developed by a number of authors. Teece (1986) draws particular attention to the appropriability problem associated with innovation, and with colleagues (1997) develops resource-based theory into placing an emphasis upon dynamic capabilities which will stand the test of changing environments without becoming obsolete. Prahalad and Hamel (1990) are concerned with similar issues in the context of organizational knowledge, and Oster (1990) is particularly effective in stressing the efficient market perspective in this context. Lippman and Rumelt (1982) review the issue more generally and the concept of architecture owes much to their uncertain instability—copycat strategies fail because the potential copier cannot easily identify what it is that it is necessary to copy.

An emphasis on the creation and maximization of rents as the engine of commercial activity is, of course, hardly a new idea. Elements of it can be found in Ricardo (1819), to whom the concepts of rents and quasi-rents are due, but by far the most forceful exposition of this perspective remains that of Schumpeter (1934). Yet this work has not been in the mainstream of economic thought. Industrial economics has followed broadly the traditions of Alfred Marshall, whose primary unit of analysis was 'the representative firm', and in subsequent models of competition firms differed not at all from each other or did so in essentially trivial ways (Kay

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1991). It is, indeed, this perspective which justified Ansoff's rejection of microeconomics as a basis for strategy—'microeconomic theory provides for no differentiation of behaviour among firms... as a result, the traditional microeconomic theory is neither rich nor extensive enough for our purpose' (Ansoff 1969). Although these criticisms are much less valid as applied to microeconomic theory today, the contribution of economics to strategy has remained limited.

2.8 The Learning School

Despite the partial demise of the rationalist and dominantly market-opportunity-based approach to competitive strategy, and the dominance of the resource-based view in the early 1990s, each school has dealt with the same thing, i.e. competitive advantage. The emphasis in each has merely been different, though each has recognized the other's territory. For instance, Porter presents a thorough capabilities analysis in the context of competitor reaction, acknowledges distinctive competences as a cornerstone of strategy and relates activity analysis to strategic positioning. Ironically, he also developed one of the most useful tools for internal resource analysis in the value chain. A progressive strategy future would see adherents of the two schools seeking greater integration to build on their relative strengths. First, they need a common language.

The traditional emphasis on accounting techniques to measure internal assets has made it difficult to carry out a full resource audit. Such techniques are essentially historic and so are incongruent with the building of future competencies and capabilities. Moreover, the latter include content that is tacit knowledge, which is not measurable by such conventional means. A different language is required that can deal with 'soft' rather than 'hard' resources and a comprehensive set of new measures needs to be developed. This requires a multidisciplinary effort.

Second, they need a new theory of the firm. At the heart of the resource-based view is the concept of imitability. Competitive advantage is built on a unique bundle of assets that is difficult to imitate. Its sustainability depends on the continuous development of two key resources, one is culture and one knowledge. Culture should be the one resource that is impossible to copy. Research into culture by organizational theorists in the learning school is reasonably well developed. However, there has not yet been sufficient intellectual traffic between the schools of culture and of learning for cross-fertilization to occur. Perhaps impediments to free communication across basic disciplines between academics have impeded theory development here.

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Organizationally embedded knowledge, influenced by the work of Polanyi (1962) on tacit knowledge and Nelson and Winter (1982) on organizational routines, became the focus of much resource-based research. But, our knowledge of the anatomy and creation of this knowledge is embryonic and its exploration has been hampered by measurement problems. Though fresh research in this area has broken new ground towards a knowledge-based theory of the firm, much work still remains to be done to progress this strategy future.

Any evolutionary strategy future would foster closer integration of all the major schools of strategy development (Mintzberg, Ahlstrand, and Lampel 1998). Linking the outside-in (Planning) with the inside-out (Resource-Based) approaches is one obvious route. Academic initiatives have already begun and must be sustained as they lag behind global business practice, which has followed this path for a generation.

2.9 The Contributions of Chaos and Complexity Theory

The schools of thought described above build on the relevant historic tracks and are part of a traditional evolution. They involve the development of the subject of strategy as a capstone discipline, borrowing partial analyses from social and physical sciences. This broadening should be accompanied by a deepening of already established knowledge. An alternative development for the future would break with this linear tradition and embrace a radical route for strategic management. If we accept that organizations are families of non-linear feedback loops linked to other families (organizations) by similar loops, they should be able to operate a long way from equilibrium, at the border between stability and instability, however much economists would quarrel with this theory. They will operate in 'bounded instability', at the edge of chaos. This state is difficult to manage. The need for control and integration pulls them towards stability and eventual ossification. The need for decentralization and innovation pulls them toward instability and eventual disintegration. The left and the right need to remain in balance. As Stacey (1996) states: 'The dynamics of successful organizations are therefore those of irregular cycles and discontinuous trends, falling within qualitative patterns, fuzzy but recognizable categories taking the form of archetypes and templates'. For strategic management, this means that, although some short-term control is possible through traditional techniques, long-term development must eschew the type of linear, analytic reasoning that underpins many of these techniques. Waldrop (1992) warns of the

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danger of 'locking in' to sub-optimal schema; generations of strategists could unquestionably operate stage-based, linear models, becoming committed to these textbook paradigms. Without continual education, the lock-in will be reinforced for years to come. Pascale (1990) talked of the Law of Requisite Variety, demanding that any organism must develop an ability to manage conflict and paradox internally, if it wants to stand any chance of coping with external shocks with similar characteristics. In this idea for the future, we may need to throw off the baggage of a previous economic-strategy generation and embrace self-organization, transformation, and renewal.

Strategists will have to react to the phenomenon of change in contemporary society. The march towards liberal democracy, the growth of the regional economic area and opposingly of tribalism, the demilitarization of the international community, mega markets (e.g. China and India), the fight against poverty, the fight for sustainable development, the drift from national to regional government and the proliferation of privatization and deregulation provide a high level of complexity at the general environmental level.

At the operating level, the digital telecommunications revolution will continue to liberate individuals from their corporate parents through efficient personal communication systems bringing with it new work patterns. Consequent decentralization could stimulate increased activity in small cells linked together by networks, so transforming intra- and inter-company relationships, and making the need for the development of an understanding of cooperative strategy even greater than it currently is. Strategists will have to grapple with virtual organizations outsourcing, increased mobility of labour, and a need for continuous education and training as the rapidity of technology and knowledge flows quickly erode contemporary skills and abilities. The structure of industries as well as companies will change dramatically.

The challenge for strategists will be to search for patterns in this complexity; to start with uncertainty; to embrace conversation and stories; to better understand intuition and to prevent it from potential contamination from the 'engineering' toolbox; yet to strive towards the development of helpful and rigorously testable theory that works in practice in such turbulent conditions.

2.10 Conclusion

The development of strategic management from the 1960s has been a tortuous one. In its initial incarnation it was dominantly rational, believing hopefully that the economic world was a predictable place and that well thought out plans for the

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future had a good chance of being realized. Forecasting, long-range planning, and business strategy were thought of as all part of the process of developing a business plan. However, when innumerable unforecast shocks and unpredictable events made too many plans unrealized for comfort, the rationalist school began to fall from favour. In more recent years strategy has come to concentrate on discovering how to capitalize on a firm's resources and in particular to aid the development of dynamic capabilities. To this extent organizational learning has come to the fore as a key ingredient of the successful company. Uncomfortable with the volatility of the environment and the difficulty of dealing with it, strategists have more recently come to wonder whether lessons can be learnt from the study of biological and physical sciences, notably chaos theory and complexity theory.

The future for strategy may then be both evolutionary and revolutionary. The evolutionary view predicts that we will do more of the same ourselves; integrating schools and disciplines, accepting partial analyses from further cognate areas and generally tweaking things at the margin. This may be good enough if we get the odd breakthrough. The revolutionary view is a call to drop the baggage, to accept that linearity and traditional planning cannot cope with complexity, to adjourn our deepening of generic strategies, to become analytically 'softer', to experiment and to take seriously apparently non-traditionally rational approaches to the development of a successful firm. From the viewpoint of this book, the view of the future is agnostic. The various contributors draw their material from all schools and disciplines, and the prevailing view of the future is left to the readers. At least they are provided with a vast amount of data and theory to enable them to make up their minds.

References

- Abernathy, W. J., Clark, K. B., and Kantrow, A. M. 1983. *Industrial Renaissance: Producing a Competitive Future for America*. New York: Basic Books.
- Ansoff, H. I. (1965). 'The Firm of the Future'. *Harvard Business Review*, 43/5 (Sept.–Oct): 162–78.
- (ed.) (1969). *Corporate Strategy*. New York: McGraw-Hill.
- (1970). 'Does Planning Pay?'. *Long Range Planning*, 3/2: 2–7.
- Argenti, J. (1965). *Corporate Planning*. London: Allen & Unwin.
- Burns, T., and Stalker, G. M. (1961). *The Management of Innovation*. London: Tavistock.
- Campbell, A., and Yeung, S. (1990). *Do You Need a Mission Statement?*. London: Economist Publications.
- Child, J. (1974). 'Part I: Management and Organisational Factors Associated with Company Performance'. *Journal of Management Studies*, 11: 175–89. [Link](#)
- Crosby, P. B. (1979). *Quality is Free: The Art of Making Quality Certain*. New York: McGraw-Hill.

- Cyert, R., and March, J. G. (1963). *A Behavioural Theory of the Firm*. Englewood Cliffs, NJ: Prentice-Hall.
- Forrester, J. (1961). *Industrial Dynamics*. Cambridge, Mass.: MIT Press.
- HBS (1981). *General Electric—Strategic Position 1981*, Case 381–174, p. 1.
- (1989). *GE—Preparing for the 1990s*, Case 9–390–091, p. 7.
- Hedley, B. (1977). 'strategy and the Business Portfolio'. *Long Range Planning*, Feb.: 9–15.
- Hrebiniak, L. G., and Joyce, W. F. (1984). *Implementing Strategy*. New York: Macmillan.
- Hume, D. (1748). *An Enquiry Concerning Human Understanding*.
- Kay, J. A. (1991). 'Economics and Business'. *Economic Journal*, Special issue: 57–63.
- Levitt, T. (1965). 'Exploit the Product Life Cycle'. *Harvard Business Review*, Nov.–Dec: 81–94.
- Lindblom, C. E. (1959). 'The Science of Muddling Through'. *Public Administration Review*, 19: 79–88. [Link](#)
- Lippman, S. A., and Rumelt, R. P. (1982). 'Uncertain Irritability: An Analysis of Interfirm Differences in Efficiency under Competition'. *Bell Journal of Economics*, 13/2: 418–38. [Link](#)
- Lorange, P. (1979). 'Formal Planning Systems: Their Role in Strategy Formulation and Implementation', in D. E. Schendel and C. W. Hofer (eds.), *Strategic Management*. Boston: Little, Brown.
- Miles, R. E., and Snow, C. C. (1978). *Organizational Strategy Structure, and Process*. New York: McGraw-Hill.
- Mintzberg, H (1973). 'Strategy Making in Three Modes'. *California Management Review*, 16/2: 44–53.
- (1983). *Power in and around Organizations*. Englewood Cliffs, NJ: Prentice-Hall.
- (1987). 'Crafting Strategy'. *Harvard Business Review*, July–Aug.: 66–75.
- and Waters, J. A. (1985). "Of Strategies Deliberate and Emergent" *Strategic Management Journal* 6: 257–72. [Link](#)
- Ahlstrand, B., and Lampel, J. (1998). *Strategy Safari*. New York: Free Press.
- Nelson, R. R., and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press.
- Oster, S. (1990). *Modern Competitive Analysis*. Oxford: Oxford University Press.
- Pascale, R. T. (1990). *Managing on the Edge*. London: Penguin.
- Peters, T. J., and Waterman, R. H. (1982). *In Search of Excellence*. New York: Harper & Row.
- Pettigrew, A. M. (1977). 'Strategy Formulation as a Political Process'. *International Studies of Management and Organisation*, 7/2: 78–87.
- (1985). *The Awakening Giant: Continuity and Change in ICI*. Oxford: Basil Blackwell.
- Polanyi, M. (1962). *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago: University of Chicago Press.
- Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.
- (1985). *Competitive Advantage*. New York: Free Press.
- Prahalad, C. K. and Bettis, R. A (1986). 'The Dominant Logic: A New Linkage between Diversity and Performance'. *Strategic Management Journal*, 7/6: 485–502.
- and Hamel, G. (1985). 'strategic Intent'. *Harvard Business Review*, May–June: 63–76.
- (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May–June: 79–91.

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2 The History of Strategy and Some Thoughts about the Future *

* This chapter is a revised and expanded version of John Kay, 'A Brief History of Business Strategy', in id., *Foundations of Corporate Success* (Oxford: Oxford University Press, 1993), 337–63.

Quinn, J. B., Mintzberg, H., and James, R. M. (1988). *The Strategy Process*. Englewood Cliffs, NJ: Prentice-Hall.

Rappaport, A. (1986). *Creating Shareholder Value: The New Standard for Business Performance*. Free Press: New York.

Ricardo, D. (1819). *The Principles of Political Economy and Taxation*.

Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, Mass.: Harvard University Press.

Snow, C. C. and Hrebiniak, L. G (1980). 'Strategy, Distinctive Competence, and Organizational Performance'. *American Science Quarterly*, 25: 317–36. [Link >](#)

Stacey, R. (1996). *Strategic Management and Organisational Dynamics*. (2nd edn). London: Pitman.

Teece, D. J. (1986). 'Profiting from Technological Innovation'. *Research Policy*, 15/6: 285–305.

—Pisano, G., and Shuen, A (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18/7: 509–34. [Link >](#)

Tichy, N., and Charan, R. (1989). 'speed, Simplicity and Self-Confidence: An Interview with Jack Welch'. *Harvard Business Review*, Sept.–Oct: 112–20.

Wack, P. (1985). 'Scenarios, Shooting the Rapids'. *Harvard Business Review*, Nov.–Dec: 139–50.

Waldrop, M. M. (1992). *Complexity*. New York: Simon and Schuster.

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3 The Boundary of the Firm

Martin Slater

3.1 Introduction

THE objectives of this chapter are to demonstrate that the central concept of a 'firm' is more complicated than might immediately appear; to examine various explanations that have been put forward for why firms exist at all; to examine the factors which constrain the size and range of activities of firms; to compare the nature of relationships within firms with relationships between firms; and to consider how ownership of assets affects incentives.

Any discussion of business strategy inevitably presupposes the existence of a business firm, for which the strategy is intended. Furthermore, the outcome of the strategic discussion will be aimed at changing the nature of the firm in various ways: the products it produces, the ways in which it produces and sells them, the activities performed by the firm and those performed outside the firm. It may aim at expanding the firm, at least in some respects, and at contracting it in others. It may aim at fusing several firms into one (mergers and acquisitions), or contrarily, splitting the original firm into several new ones (demergers and spin-offs). Therefore it is worthwhile to give some thought to the elementary question of what a firm actually is, what determines its boundaries, and what distinguishes a firm from other kinds of activity that are not firms.

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3.2 First Ideas

3.2.1 The Legal Approach

An obvious response might be simply to fall back on the legal definition: a firm is whatever is defined as a firm by the Companies Act. However, this does not really meet the question at all, for the law in these matters is often more reactive than prescriptive, as much an attempt to codify existing good practice as to lay down a template from first principles. Company legislation adapts over time, usually with a long lag; it varies from country to country; and it countenances not one but several forms of business organization, some of which are considerably more popular than others. In practice, firms are often not defined by the legal forms but use the legal forms to suit their own convenience: a typical firm often comprises many separately constituted legal entities for tax or administrative reasons, but nobody is in any doubt that the whole is a single organization. Consequently, it is sensible to ask whether there are more fundamental determinants of the existence of firms to be found in economic behaviour.

Box 3.1 Example: BP Amoco-42 Subsidiary and Associated Undertakings and Joint Ventures

The more important subsidiary and associated undertakings and joint ventures of the group at 31 December 2000 and the group percentage of equity capital or joint venture interest (to nearest whole number) are set out below. The principal country of operation is generally indicated by the company's country of incorporation or by its name. Those held directly by the parent company are marked with an asterisk (*), the percentage owned being that of the group unless otherwise indicated. A complete list of investments in subsidiary and associated undertakings and joint ventures will be attached to the parent company's annual return made to the Registrar of Companies. Advantage has been taken of the exemption conferred by regulation 7 of The Partnerships and Unlimited Companies (Accounts) Regulations 1993 from the requirements to deliver to the Registrar of Companies and publish the annual accounts of the BP/Mobil joint ventures and CaTo Finance V Limited Partnership.

Subsidiary undertakings	%	Country of incorporation	Principal activities
International			
BP Chemicals Investments	100	England	Chemicals
BP Exploration Co	100	Scotland	Exploration and production
BP International	100	England	Integrated oil operations
BP Oil International	100	England	Integrated oil operations
BP Shipping*	100	England	Shipping
Burmah Castrol	100	England	Lubricants
Europe			
<i>UK</i>			
BP Amoco Capital	100	England	Finance
BP Chemicals	100	England	Chemicals
BP Oil UK	100	England	Refining and marketing
Britoil (parent 15%)*	100	Scotland	Exploration and production
Jupiter Insurance	100	Guernsey	Insurance

<i>France</i>			
BP France	100	France	Refining and marketing and chemicals
<i>Germany</i>			
Deutsche BP	100	Germany	Refining and marketing and chemicals
<i>Netherlands</i>			
BP Capital BV	100	Netherlands	Finance
BP Nederland	100	Netherlands	Refining and marketing
<i>Norway</i>			
BP Amoco Norway	100	Norway	Exploration and production
<i>Spain</i>			
BP España	100	Spain	Refining and marketing
Middle East			
Amoco Egypt Gas	100	USA	Exploration and production
Amoco Egypt Oil	100	USA	Exploration and production
Africa			
BP Southern Africa	100	South Africa	Refining and marketing
Far East			
<i>Indonesia</i>			
Atlantic Richfield Bali North	100	Indonesia	Exploration and production
<i>Singapore</i>			
BP Singapore Pte *	100	Singapore	Refining and marketing
Australasia			
<i>Australia</i>			
BP Australia	100	Australia	Integrated oil operations
BP Developments Australia	100	Australia	Exploration and production
BP Finance Australia	100	Australia	Finance
<i>New Zealand</i>			
BP Oil New Zealand	100	New Zealand	Marketing
Western Hemisphere			
<i>Canada</i>			
Amoco Canada Petroleum Company	100	Canada	Exploration and production
<i>Trinidad</i>			
Amoco Energy Company of Trinidad and Tobago	90	USA	Exploration and production
Amoco Trinidad (LNG) B.V. USA	100	Netherlands	Exploration and production
Atlantic Richfield Co BP America* BP Amoco Company BP Amoco Corporation	}		Exploration and production, gas and power, refining and marketing, pipelines and chemicals
Standard Oil Co.	100	USA	
Vastar Resources Inc.	100	USA	
			Exploration and production
Associated undertakings	%	Country of incorporation	Principal activities
<i>Abu Dhabi</i>			
Abu Dhabi Marine Areas	33	England	Crude oil production
Abu Dhabi Petroleum Co.	24	England	Crude oil production
<i>Germany</i>			
Erdölchemie	50	Germany	Chemicals
Ruhrigas AG	25	Germany	Gas distribution
<i>Russia</i>			
Rusia	25	Russia	Exploration and production
Sidanco ^a	10	Russia	Integrated oil operations
<i>Taiwan</i>			
China American Petrochemical Co.	50	Taiwan	Chemicals
^a 20% voting interest.			
Joint ventures	%	Principal place of business	Principal activities
CaTo Finance Partnership	50	UK	Finance
Empresa Petrolera Chaco	30	Bolivia	Exploration and production
Lukarco	46	Kazakhstan	Exploration and production, pipelines
Malaysia – Thailand Joint Development Area	25	Thailand	Exploration and production
Pan American Energy	60	Argentina	Exploration and production
Unimar Company Texas (Partnership)	50	Indonesia	Exploration and production

Source: BP Amoco Annual Report.

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3.2.2 The Classical Economic Approach: Economies and Diseconomies of Scale

In early economic theory a firm was conceived of as being a fairly simple organization, run by an owner-manager (entrepreneur) effectively as an extension of the owner-manager's personal property. There were thus no serious problems of managerial control, or of conflicts of interest among various stakeholders. Similarly, the assumption of widespread perfect competition ruled out the need for any serious marketing decisions. There was an analysis of the optimal size of a firm, based on the concepts of economies and diseconomies of scale and leading to the U-shaped average cost curve (Fig. 3.1). Economies of scale are those factors which tend to reduce the unit cost of a product in the long run as the scale of planned production is increased (not to be confused with the obvious short-run improvements in unit cost which occur in a cyclical upswing when underutilized existing facilities can be operated closer to their planned ratings). Such economies of scale arise in various ways: in the potential for greater specialization in labour and machinery; in purely technical relationships such as the geometry of buildings, containers, and pipes; in the greater energy efficiency of larger machines; in the greater statistical regularity of large numbers; in the buying power of large purchases. The beneficial effect of these phenomena can be observed in various degrees in production, distribution, development, administration, and finance.

On the other hand, it was argued that there might also be diseconomies of scale: factors which tended, at least eventually, to increase the unit cost of a product as its scale of planned production increased. The combination of these two influences would produce an average cost curve, which first fell under the influence of the beneficial economies of scale but would ultimately be pulled up again by the diseconomies as the firm tried to grow too big. The optimal size was obviously the lowest point of this average cost curve where the marginal effect of the remaining economies of scale was just offsetting the marginal impact of the incipient

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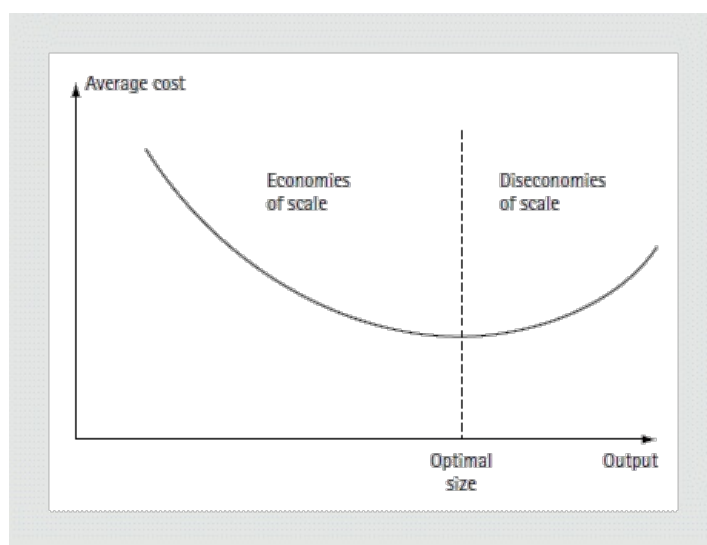


Fig. 3.1 Average cost curve

diseconomies. Furthermore, it was implicitly assumed that this optimal size would still be quite small in comparison to the total market, thereby depriving firms of any chance of market power and justifying the analysis of markets in terms of perfect competition.

A more recent development introduced the idea of economies and diseconomies of scope. As a firm expands its product range, its unit costs might at first fall for a variety of reasons: better utilization of assets both physical and intangible, such as capital-intensive plant, technological expertise, design teams, marketing networks, and brand names. Thus, a major motor manufacturer will almost certainly find it advantageous to produce not a single model but a range of models. However overdiversification might lead costs to rise again. Each model carries certain fixed costs, and too wide a product range will lose the advantages of scale in each individual model. Therefore, there should be an optimum, cost-minimizing product range for a firm.

Product range can be interpreted broadly. The motor manufacturer may diversify not only into more cars but also into trucks and buses, motorbikes, bicycles, indeed into any other product. However, for each group of products one needs to balance the advantages arising from genuinely overlapping characteristics against the disadvantages arising from inevitable dissimilarities. Thus, although trucks and buses certainly use much the same technology as cars, the scope for common components is limited because their engineering is

necessarily more heavy-duty than cars, and their marketing channels are entirely different. There are therefore pros and cons to

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such a diversification, and in practice different motor companies have taken different views.

However, the traditional analysis had several weaknesses. Empirically, although many studies of firms and industries were able to demonstrate quite clearly the existence of economies of scale—sometimes quite substantial—diseconomies of scale were more elusive. In one sense this difficulty could be rationalized away: sensible firms would not want to operate in the region of diseconomies of scale, so it should be no surprise that there were few observations. However, this did not entirely meet the point, since even the very largest firms in the world still seemed to be operating in the region of economies of scale; thus even if diseconomies of scale did exist in principle, their practical impact on most firms was negligible.

Also the theoretical arguments for diseconomies had a fatal flaw. Even if it were possible to argue that labour and machinery could become overspecialized, that the favourable geometric relationships and energy efficiencies would disappear as monstrous structures would require extra strengthening to avoid collapsing under their own weight, etc., etc., a sensible firm would simply avoid these problems by expanding its facilities just up to the point at which the malign effects were beginning to become important (i.e. the lowest point of the average cost curve), and then conducting any further expansion by a complete replication of those facilities, operated independently. If the first set of facilities could produce an output at the lowest average cost, then so presumably should the second, and the firm as a whole could therefore double its output at no cost penalty. Thus, aside from a minor indivisibility problem (say the firm wanting to produce one-and-a-half times the optimal output), the average cost curve need never turn up and there would be no limit to the size of a firm from cost considerations.

3.3 The Importance of Management

The only theoretical argument left for diseconomies of scale therefore had to be based on the notion that there was some factor within the firm that could not be replicated in this way. In some specific cases one can clearly see that there might be: a mining firm for instance might be able to replicate all the labour and machinery of one site on another, but it maybe impossible to replicate the favourable geological structure of the first site. However, such considerations are not normally so important in manufacturing for instance.

A more generally held view was that 'management' was such a factor which could not be replicated. Thus, in the plant duplication example above, although doubtless junior and middle plant managers could well be replicated, there would still only be

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one top-level management for the firm as a whole (unless the plants were indeed operated totally separately, in which case were they still really a single firm?), with now presumably double the workload. In the language of pyramidal managerial hierarchies which was popular at the time, the person at the very top (on whose desk rests the plaque 'the buck stops here') cannot be replicated and will eventually be overwhelmed by the increasing workload.

Thus, for some time, 'managerial diseconomies of scale' remained the main argument for a limit to the size of firms. Yet it was still not very satisfactory. Although it was certainly possible to observe many firms which did seem to be experiencing managerial difficulties arising from growing too big, this did not seem inevitable. Again the example of the very biggest firms in the world, often used as role models of managerial efficiency, did not support the hypothesis. Theoretically, the hypothesis rested too firmly on the rigid pyramid hierarchy, which in practice was increasingly open to question.

3.3.1 Chandler

Chandler's detailed historical studies of the development of major US corporations in the early twentieth century exposed these weaknesses further. In Chandler's studies, a typical corporation would begin as the creation of one man who operated as the paradigm owner-manager. As the corporation grew, outside finance and subordinate managers were introduced, but the founder was still firmly in control of all aspects of the business at the top of a simple hierarchical pyramid. Up to a point this system continued to work tolerably well, but as the corporation grew further, and in particular as it diversified into a multifarious range of activities, the ability of the founder to comprehend and act on all the necessary information did indeed become overloaded as the simple model predicted. At this point a crisis ensued and either the firm collapsed, or the senior management conducted a form of palace revolution, pensioned off the founder to a rather more nominal role, and reorganized the management structure along less autocratic lines. Multi-divisional structures with considerable operating autonomy, but reporting to a head office on overall financial and strategic variables, became the standard form of American corporation and subsequently (although the details have been subject to continual change) the standard form of all corporations.

These looser, natter forms of management structure appeared to enable firms to push back the limits imposed by managerial diseconomies of scale. The lesson might be that as with production, different technologies were appropriate for different scales of output: the simple hierarchy was very good for small and medium-sized firms, but large-scale organizations required a different technology—and firms that persisted with the inappropriate technology were bound to encounter problems.

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Just so long as a firm continued to adapt its management technology appropriately to its size, perhaps it could grow without any bounds at all.

But the really important point made by Chandler was that it was not simply size that mattered; it was really the overall complexity of the operation. The problems of a large but basically single-product firm might well still be comprehended by a single mind; in Chandler's view it was the diversification of corporations as much as their size that created the serious difficulties. Founder control tends to last longer in more narrowly focused companies, where success depends critically on the performance of a few crucial products or on a single brand image or theme, than in companies with broader diversification strategies. Thus, the import of the title of Chandler's first major work was that the managerial structure of the firm must be an appropriate one for its overall business strategy, and not simply for its size.

3.3.2 Penrose

Edith Penrose, to some extent building on Chandler's work, cautioned against the over-optimistic view that firms could easily be any size they chose. She argued that management structures could only be expanded slowly. Management was not a factor which could simply be bought in the marketplace and set to work at peak efficiency immediately. Managements were teams which had to learn to work with another, to learn the implicit cultures and informal networks of the organization, and the idiosyncratic features of this particular firm's markets. Too rapid expansion would not leave enough time for the effective team-building, and would lead to mistakes and poor decision-making. On the other hand, it was the very nature of management to solve (sooner or later) their immediate problems, or routinize them so that fewer resources were needed in the future to control them, and this meant that management teams would naturally develop spare capacity over time, spare capacity which should be employed on new problems generated by an expansion of the firm's activities. Thus, a firm should have an ideal rate of growth: too slow and the managerial resources would not be efficiently employed: too fast and the over-rapid expansion of insufficiently assimilated new managers would lead to control loss of the traditional kind. The traditional managerial diseconomies argument was thereby moved from a static equilibrium story to a dynamic, rate-of-growth, story. Firms could not immediately, although they might ultimately, achieve any size they desired.

If in Penrose's view the constraint on growth arose from the inability to transform individually hired managers immediately into effective teams, one avenue of escape might appear to lie in acquisition: the purchase of an existing team already in operation. However, in practice, this merely produced a different variant of the same problem: the firm would now have two teams rather than one, each with their

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own culture which might well be inimical to the other's. It was a moot point whether that problem was preferable to the original one. In some cases the costs of attempting to fuse two powerful cultures together have clearly exceeded the costs of more organic expansion. However, a subtler exponent of the Chandler hypothesis might see some advantage in a strategy of acquisition without trying too hard to fuse the two teams into one: by adopting an overall management strategy which would maintain considerable autonomy for the two teams and keep the necessary harmonization to a minimum, the organization might maximize its rate of growth.

Box 3.2 'Big Bang': The reform of UK financial markets

Traditionally UK financial institutions had operated in a highly regulated environment, with competitive forces largely suppressed by the Bank of England. In particular the Bank of England and other interests controlled entry to the various sectors of the financial markets: organizations tended to be specialized to one particular task and not allowed to trespass on the preserves of other organizations.

In the early 1980s the Conservative government significantly reduced the scope of regulation and introduced a more open, competitive environment—the so-called 'Big Bang'. With organizations free to operate in any sectors they chose, a significant redrawing of the boundaries of firms was expected. The initial consensus was that the specialized structure would rapidly be replaced by large multifunctional enterprises offering a comprehensive range of financial services. The driving force for this would be economies of scope, which would exist in marketing (current-account customers could also be interested in savings, insurance, pension, and stock-market products) and in information (a bank's long-term experience of a customer's current account would give it an informational advantage in assessing credit risk for mortgage-lending and other credit). Large-scale

amalgamations did indeed occur—retail banks merged with investment banks, with stockbrokers, with building societies, so that the average UK financial institution is currently a more comprehensive and diversified organization than before.

However, dire predictions of the complete demise of more specialized players have not been borne out, and some of the large amalgamations have been notable failures. As well as economies, there were some diseconomies of scope which were perhaps underestimated.

Several retail banks (e.g. Barclays, Natwest) made notable failures with their forays into investment banking. Here the hoped-for synergies were rather less obvious; the businesses and their operational styles were not in fact as similar as they might have superficially appeared. A big retail bank could provide a large capital base for an investment banking operation, but this could also be provided via more arm's length, market-oriented transactions, so the advantage of full integration was not high. The capital would have been better employed strengthening the retail business. On the other hand, specialization had advantages of managerial focus, speed of response in a market where speed is an important factor, and the ability to concentrate a larger volume of investment business, giving economies of scale.

Another area of relative failure was estate agency. The economy-of-scope argument was that if a financial organization was in the business of lending money to customers for house purchase, there would be obvious synergies in offering a complete house-buying package: mortgage, insurance, legal work, and the marketing of the houses themselves. Hence, there was an initial spate of financial institutions buying up estate-agency chains. Most of these were shown to be disastrous failures when the property market turned down in the late 1980s.

Probably the main cause of failure was an incompatibility of management styles. Large financial organizations are necessarily bureaucratic: they operate within a structure of self-imposed controls and standardizations to protect against fraud and mismanagement. On the other hand, a successful estate agent is more a small entrepreneur with good local information and flexible bargaining/dealing skills. Such people tended to find the managerial style of their new owners oppressive and either retired on their gains or left to refound their own independent businesses as soon as they were contractually free to do so. As there are few assets in such a business except the people, the purchasers found they had made a bad deal.

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3 The Boundary of the Firm

3.4 The Boundary between Firms and Markets

3.4.1 Coase

In a seminal article in 1937, Ronald Coase approached the problem from a different direction. He noted that economics had a well-worked-out theory of market relationships. Indeed this theory claimed that, at least under some admittedly rather strict ideal assumptions, market forces left to themselves would produce an allocation of resources which could not be bettered—the so-called Pareto-efficient allocation in which there was no possibility of any economic agent doing better for himself/herself without another agent doing worse. But if this were true, why on earth should firms exist at all? Coase saw firms as islands of authority allocation in a sea of market relationships. In the sea, resources and products flowed towards particular uses voluntarily, in response to market signals—prices. Within the firms however, resources were allocated by the command of the management. Why should such commands do any better than the market?

Coase's explanation is that there are costs of using the market and there are costs of using authority. The former include searching for trading partners, comparing prices, negotiating transactions, monitoring fulfilment of contracts, paying and collecting moneys owed, etc. The latter include managerial and supervisory costs, planning and trouble-shooting, hiring, firing, and training costs, etc. Coase

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assumes that the latter costs tend to increase with the size and complexity of the firm (this is similar to the idea of managerial diseconomies of scale but the concept is a broader one, as we shall see). When considering any particular transaction or activity the firm will prefer to take it in-house if the costs of so doing are less than the costs of having it performed by the market. A firm will therefore expand its size and its range of operations until the marginal costs of using internal authority relationships are equal to the marginal costs of using the market.

Whereas the traditional economic view of the firm was a very one-dimensional one, and the resulting idea of a firm's optimal size was confined to the optimal output of a single product, Coase's idea is much broader. The firm's cost-minimizing calculations will also determine whether the firm should be a single-product or a multi-product firm, how many and what kind of products to produce, how far

forward and backward the firm should vertically integrate, what functions to outsource and what to retain in-house.

The overall outcome is therefore a natural and optimal division of labour between firms and markets, depending on the relative costs of each method of resource allocation. If, as a result of technical change or other reason, the relative costs change, the location of the optimal margin will also change. Therefore improvements in management technology reduce the costs of authority relationships and encourage firms to expand their range of operations. On the other hand, tougher labour laws which increase the costs of hiring and firing will encourage outsourcing and subcontracting. Similarly, the increasing efficiency of markets in most Western economies in recent decades has assisted the move of firms towards greater specialization and focus, downsizing, and outsourcing. At the other end of the spectrum, in regions like the former Soviet Union where market relationships can hardly be relied upon, it is well-known that enterprises engage in degrees of vertical integration and ranges of in-house activity that would be unthinkable in the West.

Box 3.3 Toyota and General Motors

General Motors makes about 11 million cars annually and has about 750,000 employees. Toyota makes about 8 million cars but has only about 70,000 employees. How can this be explained? Their technology and scale advantages are hardly very different from one another.

US labour markets are very flexible; neither union power nor government regulation impose great costs on a firm's ability to hire and fire. However the lifetime employment system prevalent in large Japanese companies makes labour adjustment prohibitively expensive. Thus, the transactions costs of internal relationships are higher for Japanese firms than for US firms. On the other hand, the highly developed subcontracting market in Japanese industry makes the transactions costs of extra-firm relationships lower than in the United States.

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Box 3.4 The National Health Service

The UK National Health Service was set up as a vertically integrated health-care organization. It provides both health-care insurance and the health-care services themselves. In the 1980s the Conservative government instituted a reform programme aimed at vertical disintegration: the 'purchaser-provider' split.

'Providers' (basically hospitals but also to some extent general practitioners and other services such as ambulances) previously under the control of local health authorities were given a measure of autonomy ('Trusts') and command of their own budgets. The local health authorities continued to receive revenue from the government (effectively the insurance premia of the local population) and were to use that revenue to buy health-care services from providers who would quote prices for them in a competitive 'quasi-market'.

The aim was to improve efficiency by introducing a greater element of market discipline into what was perceived as an overly bureaucratic allocation system. However, the negative aspect was that the market system had its own costs, as outlined by Coase. Additional managers and administrators had to be recruited to develop the price lists and the cost information behind them, to negotiate and monitor the contracts, etc.

Assessment of the system's overall success has been difficult. However it was politically unpopular, and the highly visible introduction of financial criteria into an ethically sensitive area produced continual public relations difficulties. The subsequent Labour government abolished the quasi-market, although it retained the purchaser-provider distinction. Thus, the precise nature of the relationship between purchaser and provider has become less clear-cut—perhaps it can be seen as the inevitable development of a Williamson idiosyncratic bargaining relationship.

3.4.2 Richardson

George Richardson added some more important detail to the Coase framework. In his view the simple dichotomy between the islands of conscious authority and the sea of impersonal market relationships was too misleading. It ignored the important network of non-market relationships between firms. In a foreshadowing of the currently fashionable 'core competencies' philosophy, he drew a distinction between activities that were 'similar'—in that they required similar skills, abilities, and competencies to perform—and activities that were 'complementary'—in that for production or marketing purposes the activities needed some coordination. Thus, the production of tyres and the production of rubber sports-shoes soles are similar but not complementary, while the production of tyres and the assembly of motorcars are complementary but not similar. Firms would tend to specialize in the production of similar commodities, and where they required inputs of non-similar commodities they would depend ultimately on other firms; where the need for complementary coordination

was slight, arm's length market transactions would

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suffice, but if the degree of coordination required was very complex inter-firm, but non-market, relationships would be observed, such as long-term contracts, subcontracting, technical cooperation, and joint ventures.

Like Coase, Richardson argued that conventional economic theory had little to offer in the analysis of these significant areas of economic behaviour. Worse, the natural tendency of mainstream economics would be to regard many of these practices as anti-competitive and undesirable, in that they appeared to be some form of gratuitous suppression of market competition. Such a tendency was entirely due to the absence of an adequate framework for identifying any potential benefit which might accrue from them. Orthodox theory assumed costless markets and given firms, so by definition could not envisage any usefulness for such practices, whereas in fact the management of the interface between firms and markets required a considerable input of resources, with the usual possibilities of their being used efficiently or inefficiently.

3.5 Transactions Costs Economics

Coase's approach is conceptually insightful, but not easy to translate into operational terms. It is difficult to specify and measure the precise costs of market versus internal transactions. However, Coase did at least provide a framework in which an economic analysis of corporate *institutions* could proceed, where the prevailing mainstream economics had treated the 'firm' as a purely logical construct with no clear connection to the flesh-and-blood firms observed in reality.

Subsequently some economists, most noticeably O. E. Williamson, have attempted to build on Coase's foundations and those of earlier 'institutional' economists such as J. R. Commons, a comprehensive theory of transactions costs. Essentially this involves dividing the costs faced by firms into two types: production costs and transactions costs. Production costs are those necessarily implied by the available production technology, but transactions costs are determined by the institutional structures within which resources are gathered and directed and the products marketed. Decisions about institutional structures are therefore to be seen as attempting to minimize the total burden of transactions costs faced by the firm.

3.5.1 Williamson

Williamson rests his transactions cost theory on two fundamental behavioural assumptions: 'bounded rationality' and 'opportunism'. The first means that

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economic agents are intendedly rational, but they do not have perfect information, or more importantly the cognitive capacity to make use of perfect information, even if they had it. They cannot guarantee to work out all the possible outcomes of any situation and calculate the absolutely optimal course of action. Consequently, they can easily make mistakes and be surprised by eventualities they had not even anticipated. However, they are aware of their limitations and their actions will be influenced by that awareness: for instance, knowing that nasty surprises cannot be ruled out they might be expected to try to make themselves less vulnerable to such surprises.

Opportunism is defined by Williamson as 'self-interest with guile'. By this Williamson intends to emphasize that a certain amount of deviousness as well as straightforward honest self-interest should be expected from trading partners: a partner will renege on a contract if it turns out to be in his interest to do so; a partner may supply false information if there are no penalties for doing so, and even if he supplies the truth it may not be the whole truth.

Williamson makes great play of the fundamental difference between his assumption of opportunism and the more usual economic assumption of self-interest. However, it might be argued that the difference lies not so much in the description of the behavioural assumption as in the description of the problems within which the behavioural assumption is deployed. The problems with which Williamson and we are concerned here naturally provide an avenue for the self-interested person to indulge in deception, whereas in many more traditional economic problems such as basic consumer theory such opportunities simply do not arise. The problem really is which rules (laws, social norms, or private agreements) one can rely on a partner to adhere to against his or her own interest, and which rules one cannot so rely on. Clearly in some circumstances there might be very little to rely on, whereas in others there might be very little to fear.

Against this background, Williamson points to three important dimensions of transactions.

3.5.1.1 The Degree of Asset Specificity

If a transaction requires investment in assets that are specific, i.e. they are long-lived and have little ability to be redeployed to other uses if the transactional relationship comes to a premature end, there will be an important question of which party should make them? Or more crucially which should finance them? Because once made, the maker is vulnerable to opportunism from the other partner who will try to renegotiate the terms. Complex contractual safeguards might be required before one partner might be willing to make such investments, but because of bounded rationality even these might not be considered a sufficient guarantee. Such transactions might therefore be better taken entirely inside the firm as vertical integration, or might require the creation of a joint venture with equity-sharing to reassure both partners.

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3.5.1.2 The Degree of Uncertainty

When the nature of a transaction can be clearly defined, in terms of exactly what is to be expected from each party in all possible circumstances, a simple contract should suffice. But where the ultimate requirements are not clear in advance, and where even the list of possible circumstances may be impossible to complete, it may be impossible to write a contract to give enough reassurance to both parties. For instance an American car manufacturer wishing to sell a car to an Indian customer has a relatively simple contractual problem: clearly there are administrative and bureaucratic difficulties to be overcome (and there is a risk that they might not be overcome) but the contractual relationship is simple: if the car is delivered, the company gets the money; if not, it doesn't. However, if the American company wants to break into the Indian market in a big way by engaging an Indian company as distributor, the contractual difficulties are much greater: what precisely will be required from the Indian company and what from the American? There are bound to be large specific investments required. Overall success will depend on the quantity and quality of a wide range of inputs from both Indian and American companies, and on factors outside either of their control such as Indian government policy and the policies of other motor companies.

This is not to say that such contracts are impossible: clearly contracts in just such circumstances do exist. But they are likely to be a legal minefield, and where they do exist they usually do not attempt to specify everything in great detail, but instead lay down procedures for resolving problems as they arise and financial structures which are designed to give reassurance against opportunism. Again many firms would prefer to internalize such arrangements to avoid the transactions costs.

3.5.1.3 Frequency and Duration of Transactions

Where a transaction is a one-off event there is, *ceteris paribus*, little incentive to create specific control institutions, and a general arm's length contract is likely to be used. However, if partners perform the same kind of transaction repeatedly with each other they will have an incentive to evolve some idiosyncratic rules and procedures to resolve problems and disputes more economically. Thus, motor insurance companies prefer to average out claims between each other on a knock-for-knock basis rather than to insist on individual investigation and resolution of each claim on its own merits.

Repetition of transactions has a further favourable effect: the knowledge of continued business relations with a partner reduces the advantages of a single act of opportunism. Any gains made thereby may be quickly lost again by acts of retaliation or simply by a less cooperative attitude in future.

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3.5.1.4 Williamson's 'Fundamental Transformation'

Williamson argues that his analysis of idiosyncratic transactions has more importance than might immediately appear and in fact should really be the basic building-block of economics, because even when transactions can be performed apparently at arm's length in a thick market with many buyers and sellers, as soon as a deal is struck the circumstances change. If there is any degree of asset specificity and any time-span for the performance of transaction there will be scope for *ex post* opportunism whatever the *ex ante* terms of the deal. Thus, if I want to buy a washing machine, I originally have a wide choice from a large number of stores each stocking a variety of products. At this point it looks to be a classic arm's length transaction in a competitive market, with the outcome predictable in terms of competitive market theory—I will buy from the seller who offers the best package of price and services. However, as soon as I decide to buy a particular washing machine from a particular store and hand over my credit card to finalize the transaction, the seller suddenly becomes less certain about his promise to deliver next day, which had been an important element in my original decision. However, at this point it is too much hassle to demand cancellation of the credit card transaction and go to my second-choice store (where probably the same thing will happen anyway!), so buyer and seller are locked into a bilateral (idiosyncratic) renegotiation of the terms. Williamson's

point is that we should realize in advance that this is going to happen and factor it into our initial decisions. Notice that in this particular example it is unlikely, by convention, that the seller will renege directly on the price quoted—this being a very clearly specifiable quantity, an alteration here would likely be accepted immediately by both parties as voiding the contract. Reneging is much more likely in more vaguely specified dimensions.

Similarly, a decision to buy components in a competitive market at one time from one supplier may affect the future competition for such component supply, if the currently favoured supplier thereby gains information or other advantages which make it more desirable to stick with it in future than to allot future contracts to rivals.

Thus, even despite an appearance of large-number competition, Williamson argues that all transactions inevitably become idiosyncratic and that the normal economic competitive results cannot be relied upon.

Box 3.5 Cable television franchising

Williamson demonstrates the inevitability of idiosyncratic relations with an example from early US cable television franchising. In 1970 the City of Oakland, California, asked for competing bids to run its local cable TV network. At the franchise allocation stage there were five competing bidders. The franchise was awarded to the (considerably) lowest bidder. However, some short way into the franchise period, it became clear that the franchisee had been over-optimistic and could not deliver the specified services at the contracted prices. The franchisee therefore sought to renegotiate the terms in its favour. At this point the City found that its bargaining power had diminished dangerously. Insistence on the original terms might simply drive the contractor into bankruptcy and consequent politically unacceptable loss of service; because of the specificity of investment there would be some appreciable cost of reallocating the franchise; and the original alternative bidders might be difficult to reactivate at short notice. There was no alternative but to accept the renegotiation.

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3.5.2 Empirical Studies on Transactions Costs

The transactions costs framework has given rise to many empirical studies, particularly of vertical integration. Three of particular note can be mentioned here. Klein, Crawford, and Alchian examined the developing relationship between General Motors and its supplier of car bodies, Fisher Body, in the early twentieth century. Before 1919 wooden bodies were supplied apparently on a normal arm's length market basis. However, with the development of the all-metal body considerable specific investment in assets was required and a ten-year contract was agreed whereby GM would buy all its bodies from Fisher with the price determined by an agreed formula and disagreements to be settled by compulsory arbitration. However, GM did not remain satisfied with the contract for long. Its demand for bodies grew faster than had been anticipated; it became unhappy that the price formula did not reflect the potential cost-savings from such scale and it wanted Fisher to build new plants next to GM assembly plants to realize the economies of scale and transportation. Such a further increase in specificity did not appeal to the Fisher management, so GM was obliged to buy out the company and move to full vertical integration in 1926. Similar stories can be told of the British motor industry.

Monteverde and Teece examined the similarities and differences in vertical integration between General Motors and Ford across a large number of component groups. They concluded that the most important variables favouring vertical integration were the level of engineering skill required in designing a component and whether the component was specific to the manufacturer. They interpreted these as transactions cost variables.

Joskow has studied relationships between coal-mines and coal-burning electric power stations in the United States. The greater the proximity between mine and power station the longer was the average term of supply contracts. In the extreme examples of so-called 'mine-mouth' power stations, full vertical integration was the dominant structure.

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3.6 Property Rights Theories

3.6.1 Alchian and Demsetz

Alchian and Demsetz saw the basic rationale for the existence of firms as deriving from the inability to measure individual performances in situations of team production. The production of a complex output may require contributions from several input-owners, but if their contributions are separable in the sense that their value can be individually measured independent of the contributions of others, there is no reason in principle why the production should not be organized in a wholly disintegrated manner, with each input-owner performing his individual task and contracting to sell on the resulting intermediate product to the next input-owner, and so on. Some industries (e.g. the

traditional Swiss watch-making industry) have indeed operated in just this fashion, demonstrating that the advantages of even quite elaborate specialization in themselves do not provide a necessary argument for firm organization.

However, where such separability does not exist, it might be difficult to define the product of each input-owner and thus transfer prices for the intermediate products may be impossible to establish. In a tug-of-war team, who can tell who is pulling hardest? Where only the overall output is measurable, there will be a tendency for input-owners to free-ride or 'shirk', to the detriment of all. However, although the precise productive contribution to output may be impossible to measure, observable behaviour of input-owners may provide some correlation with productive contribution. But this behaviour in itself cannot be sold as a marketable commodity.

The members of the team, realizing the mutually destructive incentives of their situation, voluntarily agree to give up their freedom to a director or monitor, who is able to observe and set standards for input behaviour. Each agent therefore has a contract solely with this monitor and not directly with the other team members. The monitor has the right to terminate any team member's contract. This acceptance of the direction of the monitor reduces members' ability to shirk—but the monitoring is costly in time and effort to the monitor, so who is to monitor the monitor? Putting in another level of monitoring would only defer the ultimate problem, so Alchian and Demsetz's solution is to give the residual profits of the enterprise to the monitor. By implication the remuneration of other members of the team is a fixed sum. Any savings accruing to the firm through more energetic monitoring, and losses through lax monitoring, are immediately felt in the monitor's pocket, so that the monitor has the correct incentive to put in the ideal effort. By contrast, the other team members, no longer having the freedom to determine their own efforts, do not require incentivization.

Alchian and Demsetz therefore construct the essentials of the modern capitalist firm—workers who do what they are told in return for a fixed wage, an

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entrepreneur who does the telling in return for residual profits—out of a purely voluntarist argument reminiscent of social contract ideas in political theory.

3.6.2 The Principal-Agent Approach

The Alchian–Demsetz article is a particular case of a problem in which interest has burgeoned in recent years; the question of how to structure effective incentives within an organization. A unifying framework for this problem is the 'Principal-Agent' approach. A Principal is someone who wants something done but does not want to do it himself/herself; therefore he/she appoints an Agent to perform the task. But Agents are neither slaves nor altruistic, and performing the task involves some expenditure of effort on the part of the Agent, so why should the Agent do what the Principal wants? The obvious answer is that in some way the Principal must make it more in the Agent's interest to perform the task than not. The equally obvious simplest way is to offer a financial incentive greater than the agent's disutility of effort. 'Paint my house and I will give you £500; don't paint my house and I won't give you anything.' This simple contract will work well so long as the output of the task is clearly observable—either the house is painted or it is not, and I can clearly see the difference.

The problem gets more interesting when the output of the task is not so clear-cut, and not so clearly observable. A house can be painted carefully and well—all surfaces properly prepared, defects made good, high-quality materials used, several coats of paint applied—or it could be painted less carefully and sloppily—poor preparation, defects painted over, poor quality materials used, minimal coats of paint applied. It might be difficult to tell the difference merely by inspection of the output on completion. A self-interested agent on a flat fee has an incentive to economize on time and cost, thereby producing poor quality. How can the principal prevent this?

One way is obviously by monitoring, as in the Alchian–Demsetz story—inspecting the job at each stage so that any poor-quality inputs are directly detected. However, monitoring can be expensive in time, and one reason for the Principal employing an Agent in the first place is presumably a reluctance to spend time himself on this task. The alternative is to try to structure the financial incentive more efficiently. Instead of a flat fee, remuneration related to output might align the Agent's incentives automatically with the interests of the Principal. In this case the Principal might offer a fee proportional to the number of years before the house needs repainting.

In the case (to which Principal-Agent theory is often applied) of shareholders' relationship with their management, profit-related pay has clearly better incentive properties than fixed salaries. In fact it is not difficult to see that in an ideal world managers would have the maximum incentive if the shareholders simply took a

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fixed fee out of the business (since they are non-executive they have no need to be incentivized) and the managers have no fixed salary but take the residual profits (not unlike the Alchian–Demsetz conclusion). Obviously, this is almost the opposite of what is normally

observed, the reason being that we have so far considered that the performance of the enterprise is entirely dependent on the effort of the Agent, whereas in practice performance is dependent partly on the effort of the agent and partly on random fluctuations beyond the Agent's control; and it is difficult to unscramble the two effects. In this case the problem with highly-g geared incentive structures is that although they correctly reward high effort and penalize low effort, they also transfer all the risk arising from the random fluctuations on to the Agent, and the Agent may not be the best placed to bear these risks. Thus, shareholders are usually wealthier and more diversified than managers, whose limited personal wealth could not stand a big company's losses in a statistically predictable poor year. Similarly, my house painter might be reluctant to agree to my proposal to pay on the basis of length of life of the painting job—the next few years may produce particularly inclement weather; I might be a very poor maintainer of my property in other respects; I might have very unruly children who love kicking paintwork; I may go bankrupt before I finish paying, and so on. Thus, there may be a limit to the desirable level of gearing of incentives; optimal contracts involve a trade-off between incentive to effort and insurance against the random effects.

The structuring of efficient contracts can become much more complex than the above simple explanation. The crucial variable is the amount of information available to the Principal, and incentives can be sharpened if the Principal can find ways of narrowing down the unknown random component of performance. Obvious extensions are the use of relative rather than absolute performance indicators, and the use of options which limit risk to the recipient. Performance may be measured in terms of the organization as a whole or in terms of sub-units of the organization. Sub-unit performance has the advantage of being more closely related to particular individuals' efforts, but may encourage game-playing which is counter-productive to the organization as a whole. The accounting effort in producing measures of sub-unit performance can be considerable.

The implication of this approach is that firms' efficiency is ultimately determined by the efficiency of their incentive structures. The more complex the firm the more difficult it will be to keep the incentive structures sharp, and this might provide limits to the size and scope of a firm.

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3.7 The Firm as a Nexus of Contracts

The reader has presumably by now noticed that whereas some writers have seen contracts as a quasi-market relationship outside the boundaries of the firm, others see that relations within the firm are themselves equally contractual. Is a contract of employment just the same sort of animal as a contract to supply a good or service, and if so, is this whole attempt to draw a distinction between firms and markets misguided?

One approach is indeed to view the firm simply as an economizing device in contracts. Even without Alchian and Demsetz's complication of non-separability, a team-production organized through bilateral contracts among independent team members would require a large number of such contracts. A team of n members would require $n(n - 1)/2$ bilateral contracts (thus 10 members would require 45 contracts, 100 members 4,950). However, if all members contract individually with a specially-set-up third party, only n contracts are needed, a considerable saving. Of course we will confront here again the problem of how the third party can be motivated to perform its function as contractual clearing-house efficiently.

Coase himself had originally noted the difficulty that relationships both within and without the firm could equally be described as contractual, and attempted to demonstrate a distinction between the two types. He rejected a distinction based on the form of payment (a fixed wage in an employment contract, a commission for work actually done in a non-employment contract), which had been favoured by some earlier writers, but rested his case on 'the fact of direction'. He quoted a legal authority:

It is this right of control or interference, of being entitled to tell the servant when to work (within the hours of service) and when not to work, and what work to do and how to do it (within the terms of such service) which is the dominant characteristic in this relation and marks off the servant from an independent contractor.... In the latter case the contractor ... is not under the employer's control in doing the work or effecting the service; he has to shape and manage his work so as to give the result he has contracted to effect.... That which distinguishes an agent from a servant is not the absence or presence of a fixed wage or the payment only of commission on business done, but rather the freedom with which an agent may carry out his employment. (Batt 1929: 6, 7; quoted in Coase 1937: 404)

It is clear that Coase was right not to rest too much on the form of payment, because as we have seen employees may well be remunerated by various incentive schemes related to output or profits, but the 'fact of direction' is still somewhat vague. Even the quotation above makes clear that an employer's rights of control are not unlimited. Alchian and Demsetz criticize Coase for insisting on the authoritarian power of the employer as against the more limited market persuasion via price which can be exercised by a buyer—after all, if the wage offered to an employee does not seem an adequate return for the demands of the employer, the employee (unlike

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a slave) is perfectly free to withdraw in exactly the same way as a grocer will not supply foodstuffs if the price offered is not high enough. And on the other side of the coin it is well known that many principals in subcontracting relationships (Marks and Spencer are an example) are very intrusive in detailing exactly how the goods contracted for should be produced. So exactly where should the line be drawn?

3.7.1 Incomplete Contracts, Residual Rights, and Ownership

In a series of papers, Grossman, Hart, and Moore have developed the theme of incomplete contracts as a way of looking at the implications of ownership, employment, independent agency, and the boundary of the firm. In an ideal world, transactors could specify their contracts complete in every respect: each side's rights and responsibilities under every conceivable eventuality would be written down. But for this to work, all eventualities and actions would have to be perfectly observable, which they are usually not, and anyway such contracts would be far too cumbersome to countenance. Consequently, contracts are almost always incomplete, in that they do not specify explicitly what should happen in some circumstances which are either unenvisaged or for convenience or some other reason not spelt out. An important consideration therefore is which party has the 'residual rights' in the unspecified circumstances. A very simple example might be that I agree to lease my house for a year to a tenant. The agreement will explicitly specify that the tenant has the right to live in the house for the year, and that I have given up my own right to live in the house for the year. It is however unlikely to bother to specify explicitly that the tenant must return the house to me after the year and that I have the right to live in it for the following year and that he does not, because it will be taken for granted that the residual rights (i.e. anything not explicitly specified) are mine by virtue of the ownership of the house.

Ownership of an asset, according to Grossman, Hart, and Moore, is the power to exercise all aspects of control of an asset, other than those which have explicitly been ceded elsewhere. One of the important aspects of control is the ability to grant others access to, or exclude them from, use of the asset. Productive human resources normally need to cooperate with non-human assets in order to produce output. If person A contracts with person B to produce some output which requires the cooperation of a physical asset, the nature of the contractual relationship will be affected by which of A or B owns the asset, because their contract is unlikely to be complete, and the residual rights will therefore favour the asset-owner. In a contractual relationship over time, with a requirement for specific investments (in human or non-human capital) and with the possibility of opportunism, the location of the residual rights may significantly affect the incentives to carry out investment.

Grossman and Hart give the following example: some insurance companies have sales forces who are employees; others may use 'independent but exclusive' agents.

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Both types of sales person are remunerated identically by commission. What is the difference? In what sense could one kind of company be said to be more vertically integrated than the other? In Grossman and Hart's view, the key distinction lies in the ownership of one crucial asset: the client list. A salesperson can only be productive in conjunction with a client list, and if the insurance company owns it, then the salespeople, however described, are effectively employees who need to look after the insurance company's interests to retain their ability to work in the future; however if the agents own their own lists, then they have the option of terminating their current agreements with this insurance company and taking their clients to another company in future.

In such a case, would vertical integration (i.e. the insurance company buying the client lists of previously independent agents) be a good idea? Grossman and Hart make the important point that such a transfer of ownership of the asset affects *both* parties' incentives, one favourably but the other unfavourably. In the long term it is desirable for the enterprise as a whole to maintain the quality of the client list (i.e. to have stable, persistent customers who will reliably repeat-purchase) and both company and sales force have actions available to them that will influence that quality. Gaining ownership of the list will increase the natural incentives of the insurance company to take the appropriate actions, but correspondingly, losing ownership of the list will reduce the incentive of the sales force to take their appropriate actions, because they can no longer guarantee not to be excluded from the benefits of their actions in the future.

Transfer of the residual rights has therefore affected incentives in both directions, and the assessment of vertical integration must therefore be a balance. If the effect on salespeople's incentives is quantitatively greater than that on the company's incentives, it is better that the asset should be owned by the sales force.

Box 3.6 The privatization of British Rail

Many privatizations involve the breaking-up of previously monolithic public-sector organizations before transfer to the private sector. A particularly good example is that of British Rail.

Before World War II the British railway system comprised a number of independent private-sector companies. These companies

tended to be regionally based (Great Western, London & North-Eastern, etc.) and vertically integrated (each company had its own track, stations, rolling-stock, and other facilities). In the early days of railway development, there were a very large number of such companies, but they had gradually amalgamated into a few large groups.

After World War II the system was nationalized and formed into a single public-sector enterprise. It remained vertically integrated, and it retained a regional divisional structure based on its precedent companies. Over time functionally based business divisions (Inter-City, Freight, etc.) cut across the regional structure.

In the 1990s the Conservative government returned the railway system to private ownership, and in doing so restructured it significantly both horizontally and vertically. One company, Railtrack, was to own the track, signalling, and stations; a large number of 'Train Operating Companies' would bid for the right to run particular train services over that track; these train operating companies would not actually own their trains but would lease them from 'Rolling-Stock Leasing Companies'; the maintenance of the rolling-stock would in turn be contracted out to specialist rolling-stock maintenance companies.

The purpose of this considerable fragmentation was partly to facilitate the entry of new players into the industry and to facilitate the regulatory process, but also to remove perceived bureaucratic inefficiency and inflexibility by replacing internal authority relationships by market relationships.

Success so far can only be described as mixed. Traffic has grown rapidly and various innovations have been made, but passenger dissatisfaction is high. Dimensions of quality such as punctuality and safety which are determined by joint efforts are potentially compromised by the division of responsibility; desirable services such as comprehensive timetables and through ticketing have proved more difficult to deliver. Pockets of monopoly power within the system have been able to make unjustifiable profits, and there are concerns about the effectiveness of investment incentives arising from the lack of ownership and long-term commitment by the train operating companies.

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3.8 The Future

The complexity of the issues treated above has been determined by evolving business practice, and practice is of course still in continual change. Corporate financiers have become increasingly adept at creating new organizational forms and new incentive structures to suit particular market conditions. Public/private partnerships, strategic alliances, government regulation, franchises and franchise auctions, securitization of debt and the definition of new forms of intellectual property, ecommerce, all introduce new variations into the general themes of transactions costs, incentives, and residual rights. 'Ownership' has been seen above as a means of guaranteeing control of and access to assets. However, if it is the control and the access which are the fundamentally important factors, other social devices short of full ownership may turn out to be more efficient. Different societies anyway have different interpretations of the rights of ownership—compare the attitudes to shareholders' rights in the United Kingdom, Germany, and Japan, for instance—and the transnational restructuring of the future will require such differences to be resolved, probably by the evolution of compromise forms. The current debate on

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'stakeholders' is another indicator that concepts of ownership are likely to become more and not less complex.

3.9 Conclusions

Although thinking on this issue is dominated by the basic idea of Coase, it can be seen that practice is still much more complex than Coase's attractive simplicities. The simple dichotomy between firms and markets turns out to be something of a continuous spectrum. Nevertheless it is a spectrum in which certain variables have been identified as important. The first is the key competencies or abilities, which are assets not easily reproducible and providing their owners with much lower transactions costs in performing the associated tasks. Secondly, there are questions of incentive structures: organizations which grow too unwieldy for sharp incentive structures will have difficulty remaining competitive. Thirdly, there are questions of ownership of residual rights. Any kind of organizational form or commercial relationship needs to be considered in these contexts, and their nominal form may not be such an important factor.

References

Alchian, A. A., and Demsetz, H. (1972). 'Production, Information Costs and Economic Organization'. *American Economic Review*, 62: 777

–95.

Batt, Francis R. (1929). *The Law of Master and Servant* . London: I. Pitman.

Chandler, A. D., Jr. (1962). *Strategy and Structure: Chapters in the History of the American Industrial Enterprise* . Cambridge, Mass.: Harvard University Press.

— (1977). *The Visible Hand: The Managerial Revolution in American Business* . Cambridge, Mass.: Harvard University Press.

— (1990). *Scale and Scope: The Dynamics of Industrial Capitalism* . Cambridge, Mass.: Harvard University Press.

Coase, R. H.(1937). 'The Nature of the Firm'. *Economica*, 4: 386–405. [Link](#)

Grossman, S., and Hart, O. (1986). 'The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration'. *Journal of Political Economy*, 94: 691–719. [Link](#)

Hart, O., and Moore, J. (1990). 'Property Rights and the Nature of the Firm'. *Journal of Political Economy* , 98: 1119–58. [Link](#)

Joskow, P. L. (1985). 'Vertical Integration and Long-Term Contracts'. *Journal of Law, Economics and Organization* , 1: 33–80.

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Klein, B., Crawford, R. A., and Alchian, A. A. (1978). 'Vertical Integration, Appropriable Rents and the Competitive Contracting Process'. *Journal of Law and Economics* , 21: 297–326. [Link](#)

Milgrom, P., and Roberts, J. (1992). *Economics, Organization and Management* . Englewood Cliffs, NJ: Prentice-Hall.

Monteverde, K., and Teece, D. (1982). 'Supplier Switching Costs and Vertical Integration in the Automobile Industry'. *Bell Journal of Economics*, 13: 206–13. [Link](#)

Penrose, E. (1959). *The Theory of the Growth of the Firm* . Oxford: Oxford University Press.

Richardson, G. B. (1972). 'The Organisation of Industry'. *Economic Journal*, 82: 883–96. [Link](#)

Williamson, O. E. (1985). *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting* . New York: Free Press.

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4 Evolutionary Theory

David Barron

4.1 Introduction

WHAT can evolutionary theories of organizations help to explain? Fundamentally, evolution implies change. Evolutionary theories have been applied to understanding dynamic processes such as the emergence of new organizations and new forms of organization, changes in organizations, and the life cycles of industries. It is this element of the evolutionary approach that partly explains why it is gaining an increasing amount of attention. We experience the world of business and organizations as being one of constant change. Both the popular and academic management literatures are full of exhortations to managers to promote flexibility in their organizations, to the need to keep ahead of increasingly global competition. Yet, the vast majority of research that is carried out into organizations is cross-sectional. What is more, a very high proportion of this literature focuses on organizations that are successful, such as members of the Fortune 500 or FTSE 100.

Evolutionary theorists argue that to get any understanding of how and why organizations and industries emerge, develop, and, sometimes, disappear, we must study the processes of organizational and industrial change over time. What is more, we must include small organizations—some of which will go on to become the FTSE 100 members of tomorrow, most of which will fail—and unsuccessful organizations in our analyses.

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A second reason why evolutionary theories are particularly relevant at the moment is because of the growing recognition that organizations are complex systems, and hence their dynamics are inherently unpredictable. Evolutionary approaches imply that the dynamic processes we observe have an element of chance in them. In contrast to economic approaches that assume perfect rationality, and hence predictability of outcomes and the achievement of optimal equilibria, evolutionary theory implies uncertainty, learning, a permanent 'race' for competitive advantage, and at least the possibility of sub-optimal outcomes. In this sense, evolutionary theory seems to conform more closely to our intuition about the way in which organizations and industries change than do neoclassical economics and the approaches, such as Michael Porter's, that are based on this foundation.

In this chapter I will discuss several evolutionary approaches that have been particularly influential in the study of organizational and industrial change. The first, developed by two economists, Richard Nelson and Sidney Winter, envisages organizations as being characterized by the routines that they develop for performing their core functions. These routines are selected for by competition. The other two approaches are variations on theories that are often called ecological because they stress the relationship between organizations and resources in their environments. The most well-known of these was first developed by two sociologists, Michael Hannan and John Freeman, while the other was developed by another sociologist, Miller McPherson. They both take organizations as the basic unit of analysis, but whereas Hannan and Freeman have mostly been concerned with understanding rates of entry and exit into populations of organizations, McPherson has been more concerned with how organizations adapt to variations in the distribution of resources and the strength of competition in their environment. Before discussing these theories in detail, however, I will first describe the basic framework that all evolutionary theories share.

4.2 What is an Evolutionary Theory?

Having said that evolutionary theories are about change, it is important to emphasize that all change is not evolutionary in the sense in which I am using the word. For example, change can be brought about by perfectly rational agents. Alternatively, 'a management fad' might come to be widespread even though it actually brought no real advantages to firms that adopted it. Neither of these sorts of change would constitute what I am calling evolution in this chapter. For a process to be evolutionary, it must involve three distinct mechanisms: blind variation, selection, and retention.

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4.2.1 Variation

There must be some mechanism by which innovations are introduced. These variations might include new technologies (semiconductors, biotechnology), new forms of organization (building societies, venture capitalists), new products (cars, video recorders), or merely the adoption of an existing practice in a novel context (performance-related pay in schools). This is generally termed the process of variation.

4.2.2 Selection

There must be a mechanism that distinguishes beneficial from deleterious innovations and that confers some benefit onto the individual that has the beneficial innovation, such as reduced risk of failure or increased profit. This is known as the process of selection. It is important to specify what characteristic is being selected for as precisely as possible. Do not fall into the trap of assuming that because some organizational characteristic has become widespread it must have been selected for, meaning that it has conferred some advantage on organizations that have that property or characteristic. Suppose, for example, that performance-related pay (PRP) becomes very widely distributed (as, indeed, it has). If we believe in an evolutionary theory, does this mean that PRP is being selected for? Not necessarily. One possibility is that a few successful firms adopted PRP. Other firms, believing (rightly or wrongly) that PRP was a partial cause of that success, decided to copy these early adopters and develop their own systems of PRP. In this way, PRP would become widespread. However, the managers of the imitators might be wrong; PRP may not improve their performance. Provided it does not actually make performance worse, they may well retain it. Indeed, PRP may damage performance but not be identified as the culprit and so be retained. If performance improves at about the same time as PRP was adopted for reasons that have nothing to do with PRP, managers may wrongly infer that PRP caused the improvement and so be still more likely to retain it. If PRP is actually detrimental, we would expect firms that did not use PRP to have an advantage. Therefore, provided there are some firms that fail to adopt or abandon PRP (that is, provided that there is some variation across this characteristic) and provided that they do not have some other disadvantage relative to the adopters, eventually we would expect the non-PRP firms to be selected for. However, there will be a time-lag during which the selection process is taking place, and during this time PRP may remain widespread even though it is actually detrimental to the performance of some or all of the firms that adopted it.

It is also important to be aware of the importance of specifying just what outcome it is that is being selected for. To give an example, it is often claimed that firms in private ownership must have some performance advantage over worker cooperatives

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because the former organizational form is so much more prevalent. In other words, an implicit selection model is being posited: worker cooperatives are thought to be less efficient, perhaps because of motivational problems, and hence such organizations will have a lower chance of survival and growth than will privately owned firms. An evolutionary theory would therefore predict that cooperatives would become rare. However, it is possible that the advantage of private firms lies not in their performance, but in the ease with which they can be founded, a conclusion that is supported by empirical studies that have shown little or no difference in the effectiveness of private firms and worker cooperatives. In this case, then, what may be being selected for is the ease with which new organizations can be created, rather than any performance benefits. This is not to say that this is not an important benefit; clearly it is often beneficial except, perhaps, for incumbent firms, that new firms can be created relatively easily. But this example shows that great care must be taken before jumping to conclusions about what exactly is being selected for.

4.2.3 Retention

Beneficial innovations must have some way of spreading from the original innovator to other units, whether that means from one team to the rest of the organization or from one organization to others in the industry or even more widely. This is the process of retention.

In biology, variation occurs when genes mutate, selection occurs when beneficial mutations allow an organism to produce more offspring, and retention is achieved by passing on the mutated gene from parent to offspring. It is very important to note, however, that the logical structure of an evolutionary theory is much more general than the biological case. It is perfectly possible for entities such as organizations to evolve via processes of variation, selection, and retention that are only very remotely connected, if at all, to analogous biological processes. The foregoing discussion does make clear, however, that we must be as precise as we can about specifying the mechanisms of variation, selection, and retention in every case where we want to develop an evolutionary theory to help understand some phenomenon.

4.3 Common Misconceptions

Before discussing some applications of evolutionary theories of organizations, I will first discuss some of the most common misconceptions that surround the use of

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such theories. It is worth highlighting these misconceptions, I think, because they are so widespread that they may lead some people to dismiss this line of theorizing unfairly.

4.3.1 Evolution does not imply that Firms Cannot Change

Some evolutionary theories that claim to be 'Darwinian' stress that natural selection operates by the differential survival of more successful firms, rather than the adaptation of existing firms. This approach is particularly associated with Hannan and Freeman's (1977, 1984) ecological theory of organizations. They argue that 'selection pressures in modern societies favor organizations whose structures are resistant to change' (Hannan and Freeman 1984: 155). That is, organizations can change, but they are very unlikely to be able to change as quickly as the environment in which they are operating. To put it another way, managers are unlikely to be able to predict the changes in the environment far enough in advance to enable the firm to adapt in the right way at the right time. This is not just because of the difficulty of predicting how the environment will change (though this is an important factor). It is also because organizations need to develop a high degree of inertia in order to survive. As Tom Peters put it, 'the better you get at doing something, which is a must for initial success, the less the likelihood of getting really good at something else (or even realizing that you need to get good at something else)' (Peters 1992: 621).

However, Hannan and Freeman do not mean to imply that all organizational change is impossible, or even that such change that does occur is a waste of time or worse. Given that organizations can be seen to be changing all the time, such a claim would clearly be ridiculous. Hannan and Freeman are intending to emphasize two things. First, that much management scholarship and, perhaps, practice is too sanguine about the feasibility of bringing about radical change. Second, that most change that we observe does not involve an organization's core features. These core features include (Hannan and Carroll 1995: 27):

- **The mission** . The 'basic public goals' of an organization. For example, the mission of General Motors is the production of cars, while that of the Roman Catholic Church is to tend to the spiritual needs of its members.
- **The form of authority** . Here Hannan and Freeman seem to have in mind something similar to Mintzberg's configurations. 'Is authority grounded in rules or on expertise? Are rules formally defined and written, or are they normatively defined? Does authority emanate from a single charismatic leader, or is it rooted in a set of responsibilities attached explicitly to positions?'
- **The basic technology** . How are the outputs of the organization produced?
- **The general marketing strategy** . How are the outputs sold or distributed?

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The characteristics of an organization that do not form part of its core are called peripheral. Such characteristics might include the number of levels in the hierarchy, the use of joint ventures, the development of new but related product lines, and so on. Changing these characteristics may not be straightforward, but at least it should be much more easily achieved than a change in the core features of an organization.

As we have seen, even the branch of organizational evolutionary theory that puts most stress on organizations not changing does not imply that organizations are completely inert. However, it must be emphasized that an evolutionary theory does require a degree of stability in the characteristics that are being selected for. Without some degree of stability, selection cannot operate because the characteristic will have changed before the selection forces have had time to work. As I will discuss below, this tension can be found even in the work of scholars who claim that their theories are Lamarckian, such as Nelson and Winter (1982).

4.3.2 Evolution does not imply that Managerial Action is Irrelevant

At root, I believe that much of the resistance to evolutionary theory derives from the belief that it implies that managers are impotent in the face of 'the environment' in which their organization is operating. It is indeed true that evolutionary theories do not pretend to allow the development of simple fixes or menus of actions from which managers can easily choose. But they certainly do not imply that managers cannot affect the fate of their organizations. We will see that evolutionary theory is compatible with the use of managerial expertise even in the model of trial-and-error that is implied by blind variation. Furthermore, we have seen that even ecological theorists, the most extreme advocates of organizational inertia theory, allow that peripheral changes are possible. Calling these changes peripheral should not imply that they are unimportant. Indeed, changes in products, the development of joint ventures and so on are often very important; so important that many chapters of this book are devoted to changes of this type. What is more, pointing to the difficulty of changes in an organization's core, while perhaps an unwelcome message, is an important one for managers to hear as it has implications for corporate strategy. The implication is that when attempting strategic redirection or major transformation, it may well be better to establish new and isolated structures rather than attempt the transformation of existing structures (Carroll and Hannan 1995: 363).

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4.4 Organizational Evolution

Evolutionary theories can be applied at a number of different levels. A recent collection of studies into 'evolutionary dynamics' (Baum and Singh 1994a) contains contributions at four different levels: intraorganizational, organizational, population (or industry), and community. In this chapter I will focus on the organizational and industry levels of analysis, as they are the best developed of the four, and are arguably the most important from the point of view of business and corporate strategies.

4.4.1 Nelson and Winter

If organizations can be thought of as evolving, we must be able to specify what is being selected. That is, what are the attributes of organizations that affect their performance and are subject to some sort of selection mechanism? Perhaps the most well-known evolutionary theory to come out of economics is that developed by Nelson and Winter (1982). They argue that firms can be characterized as bundles of routines. These routines constitute the firm's knowledge or memory. They are the result of learning-by-doing, and as such constitute a set of tacit knowledge about how the firm carries out its core operations. Examples of routines include 'well-specified technical routines for producing things, through procedures for hiring and firing, ordering new inventory' and so on. Nelson and Winter view a firm's routines as being akin to the genes of an organism. Like genes they are 'instructions' that determine how the organization will function. Also like genes, they are relatively immutable; an organization's routines tend not to change dramatically over time. This gives the stability that selection needs to have time to work.

However, there is a tension in Nelson and Winter's work. On the one hand, they stress the relative stability of routines, as is required by an evolutionary theory. On the other hand, they argue that organizations search for new routines under certain conditions. In particular, they argue that search is triggered when a firm's profitability falls below a level that managers view as satisfactory. In this respect, Nelson and Winter are drawing on one of the key ideas of Herb Simon. Criticizing the view that managers are capable of making optimal decisions, Simon argued that instead they 'satisfice'. That is, they are satisfied with performance that, while it may not be the best that a firm could possibly achieve (indeed, in practice, the managers cannot know if they have achieved this state of perfection), managers have some sort of target level of performance that they consider satisfactory. If that is achieved, they will not search for new routines. However, if performance falls below this target, search for new routines is triggered.

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In Nelson and Winter's model, search is triggered by a firm's performance falling below some level. However, there is no attempt to assess the likely performance of new routines. That is, the mechanism of variation is purely backward looking, and hence is blind. Search is completed before a new set of performance measures are obtained (by means of computer simulations in their formal analysis). If satisfactory performance is regained, there is no further searching. If performance is still unsatisfactory, further searches are carried out. This process alone should be enough to ensure that routines that help firms perform well become more widespread in the population of firms than routines that hinder a firm's performance, because the market share of highly profitable firms increases at the expense of less profitable firms.

Nelson and Winter argue that their model is Lamarckian, in contrast to the Darwinian model that is widely accepted in biology and in many cultural and economic evolutionary theories. Lamarck argued that 'acquired characteristics' could be inherited. What he meant by that is that some beneficial characteristic that an organism develops in the course of its life can be passed on to the genes of its offspring. Lamarck did not mean that these beneficial characteristics were developed in response to some perceived 'poor performance' on the part of the individual organism. However, this is what Nelson and Winter appear to mean by Lamarckism; an organization's search for new routines is sparked by unsatisfactory performance. It is true that such success-dependent variation is generally held not to occur in the world of biological evolution, though there is no logical reason why it could not. It is possible to conceive of some forms of environmental stress increasing the rate of mutation, for example. If such a process were to be observed, this would not be incompatible with Darwinian theory.

Nevertheless, the issue of the role of deliberate attempts to adapt an organization in response to poor performance is important, because if organizational change can be explained as a result of such deliberate adaptation attempts, it might be thought to reduce the usefulness of an evolutionary theory. This is especially the case if it is thought possible for these creative adaptations to be forward-looking, which is not the case with Nelson and Winter's model, but is implied by Simon's model of adaptive learning. However, I argue that the occurrence of creative adaptation is not in fact incompatible with an evolutionary theory based on selection and blind variation.

4.4.2 Blind or Random Variation

I have already discussed the idea that some sort of variation is crucial for selection to operate. This leaves open the source of this variation. A common argument is that variation that is produced by a deliberate search for a solution to a problem or for

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an innovation to allow the exploitation of an opportunity cannot be random, and therefore is not compatible with an evolutionary explanation of change. This is an important issue; individuals and groups within organizations clearly do undertake deliberate, planned searches for solutions to problems that confront their organizations. If this kind of action undermines evolutionary theories of organizations, then there is no point in reading the rest of this chapter. Fortunately, evolutionary theory can be rescued even in the face of this seemingly powerful criticism. The key is understanding the difference between a random variation and a blind variation.

An evolutionary theory does require that the process that generates variations is blind, in the sense that it is not known what the outcome of implementing an innovation will be. As Donald Campbell puts it, 'In going beyond what is already known, one cannot but go blindly. If one can go wisely, this indicates already achieved wisdom of some general sort' (Campbell 1974: 422). If we are very wise, we can act in a perfectly rational manner; we know what the outcome of the innovation will be. Under these circumstances, then there is no point in using an evolutionary theory; we would be better off using a theory that relies on rational decision-making. However, we cannot normally make such a claim. It is far more likely that there will be considerable uncertainty about the implications of introducing an innovation, and hence that innovation will involve 'going beyond what is already known'. This assumption is relatively weak; indeed, it is very widely accepted that managerial decision-making cannot be fully rational, while 'emergent' models of strategy-making imply that even attempting such rationality may be detrimental precisely because it is impossible to achieve.

However, blind variation does not necessarily imply random variation, in the sense that every possible option could be chosen with equal likelihood. For example, it is possible that decision-making processes involve the use of knowledge that enables certain options to be ruled out because, while technically feasible, they are known to have a very low probability of success. A good analogy is with the way people (as opposed to computers) play chess. An expert does not bother to consider most of the many possible lines of play that could be developed; his or her experience enables them to be ruled out without any conscious consideration. The expert's choice could be considered to be blind, because he or she does not know with certainty what moves his or her opponent will make, but it is certainly not random. Below I develop ideas about how adaptive learning in organizations can be viewed as an evolutionary process involving blind, but not random, variation and selection.

To understand this idea, it is helpful to refer to the work of Donald Campbell (1965). He introduces the important concept of the vicarious selector. These are higher level processes that enable an organization to short-circuit a 'more fully blind' variation process. Campbell explains that

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creative thought is a prime example of such a short-circuit process using fallible vicarious selectors.... Innovations coming from the 'intelligent' problem solving of leaders would of course still have to be cross-validated in group-versus-group competition. Such creative problem solving is not based on 'reality' directly, but only on incomplete memory and simplified extrapolation. Even where wise, the wisdom reflects past realities, not the current or future ones directly relevant to group survival.... [W]hen we come to business firm-level adaptations, creative thought rather than blind chance will most often be the source of the group-level variations upon which selection of firms operates. [Therefore] the occurrence of intelligent planning as a source of group-level adaptations is not in conflict with our shared evolutionary perspective. (Campbell 1994: 31)

These vicarious selectors can themselves be the product of a process of blind variation, selection, and retention. Organizations might develop routines or mechanisms that help them take decisions, such routines being the result of an evolutionary process. After all, they must in some sense embody wisdom about the environment that is the result of prior experience. The result is that it is possible for there to be a hierarchy of variation, selection, and retention processes operating at different levels within an organization.

This gives us a complete model of how selection and variation processes operate within an organization. Selection is provided by economic market competition between organizations. Those firms that have better routines make more profit in this competitive marketplace, and so increase their market share. Their routines therefore come to spread (though note that this does not necessarily mean that more firms come to adopt these routines). However, managers who are alert to relatively poor performance on the part of their organizations can institute searches for replacement routines in an attempt to improve future performance. These searches do not have to be completely random, but they do have to be blind. That is, there must be uncertainty about the outcome of the adoption of any particular set of routines. But firms can develop higher level routines to guide this search on the basis of past experience. Indeed, the triggering of search itself could be an example of such a higher-level routine. Other simple higher-level routines could be not repeating past mistakes and copying routines thought to be factors in other firms' success. None of these vicarious selectors is perfect, however. A routine that failed in the past might be successful in the current market. A routine that works in one organization might fail when it is adopted by another because it is not compatible with other routines used by that firm. These higher level routines could themselves be the product of

blind variation, selection, and retention processes in the past, since they embody the results of past experience. In this way, it is possible to develop a model of organizational evolution that allows for managerial creativity, while recognizing the severe limitations on the ability of managers to take fully rational decisions. In fact, there are similarities between this model of organizations and emergent models of corporate strategy, with its image of strategy developing via a process of trial-and-error in small, incremental steps.

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4.4.3 Implications of Nelson and Winter's Model

It is often thought that evolutionary theory implies that the current state of some system that is subject to a process of evolution involving variation, retention, and selection must be optimal in some sense. This is sometimes called the 'Panglossian fallacy'. To understand why evolution does not necessarily result in optimally (though this is a logical possibility), we must think about the processes of variation and selection that are driving change in the system. First, selection can only operate on actually existing variations. If there is no variation, then selection cannot operate because all organizations will be the same. But even if there is some variation, there is no reason to believe that the best possible variation has been invented.

There are a variety of reasons why we may doubt that the optimal variant has had an opportunity to be selected for. First, and most obviously, human ingenuity is limited as are the resources at our disposal to search for better and better innovations. Second, the aspects of the environment might change, and so the characteristics of the optimal variant might also change. Third, sub-optimal variants might become entrenched, or locked-in, because it would be too costly to switch to a new variant, even though if this switch could be achieved, the end result would be beneficial. A well-known example of a variant becoming locked-in is the QWERTY keyboard layout. This keyboard format was invented in the era of mechanical typewriters, when it may have been optimal in the sense of allowing the fastest possible typing speeds. However, the layout is thought to be suboptimal on computers which do not have to take into account the possibility of moving arms getting jammed together. Several alternative keyboard layouts have been developed that are claimed to allow faster typing speeds on electronic devices such as computers. However, so large is the number of people who are trained in the use of QWERTY keyboards, and so great would be the cost of having to retrain all these people, not to mention the cost of new hardware and adaptations to software, that the QWERTY layout cannot be superseded.

We must also be clear about what we mean by optimal in this context. Evolution could only produce a system that was optimal in terms of the outcome that was being selected for. If we assume that organizational survival is selected for, then traits that reduce the risk of an organization failing will have a greater chance of spreading through a population. However, there is no logical reason why this will result in improvements in other outcomes that we might consider to be desirable. For example, if survival chances are improved by an organization growing very large, we might expect markets to become highly concentrated even if this is thought to be detrimental to competition and therefore to consumer interests or the rate of innovation.

end p.90

4.4.4 McPherson's Niche Overlap Model

A different sort of model of organizational evolution has been developed by the sociologist Miller McPherson. His approach depends on the important concept of the ecological niche. A niche is defined as a set of resources that is capable of supporting a set of organizations. Two possible ways by which competition can affect the niches of organizations are shown in Figures 4.1 and 4.2. In Figure 4.1(a), the niches have a large overlap; these populations are attempting to obtain very similar resources. This implies that competition will be very strong between these populations. A possible result of this competition is that the niches of the two populations move apart. This might be because the organizations that exist in the shaded overlap region are more likely to fail because of the greater difficulty they have in obtaining resources. The result is that the mean of the niches moves apart, reducing the amount of overlap as shown in Figure 4.1(b).

A model that relies on this type of process has been developed by McPherson and his colleagues to explain the dynamics of organizations (McPherson 1983; McPherson and Ranger-Moore 1991). In developing his theory, McPherson made the important assumption that the concept of the niche could be applied to individual organizations. The implication of this is that we can locate an organization in a 'resource space', the dimensions of which are defined by the variables that distinguish the resources that are required by the organizations. As an example, we could locate newspapers in a space defined by the demographic characteristics of their readers. The niche of a newspaper would then be defined in terms of the distribution of its actual readership.

McPherson's empirical research has focused on voluntary membership organizations. These organizations can be located in resource space by the demographic characteristics of their members. McPherson argues that organizations will tend to lose members more rapidly in areas where their membership overlaps with a number of other organizations. These organizations are not necessarily competing in the

usual sense; but since people only have a finite amount of time, membership of one organization may well affect another. If I become involved in a school's PTA,

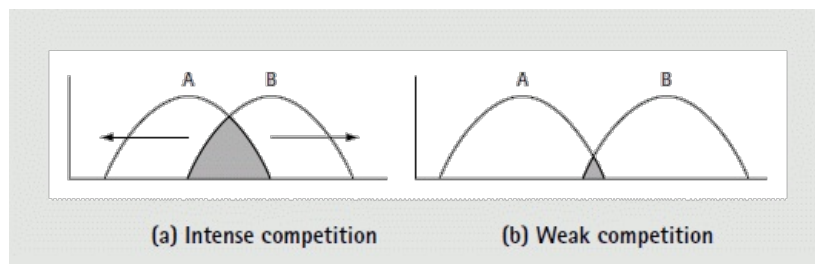


Fig. 4.1 Competition affecting niche position

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I may decide to give up membership of the Bridge Club because I no longer have time to play, for example. What is more, it will be harder to attract new recruits from these areas where several niches intersect. New members will be more likely to come from the sides of the niche where there is less competition, and the organization will also be more likely to hang on to its existing members in these regions. If the x-axis in Figure 4.1 represents, say, the ages of organizational members, McPherson would expect that the proportion of middle-aged members of both organizations would fall, while the proportion of young members of organization A should increase, as should the proportion of old members of organization B. McPherson's model is more complex than this, however, in that he also takes into account how the exploitation of resources in different regions of social space deviates from the carrying capacity of the environment. For McPherson, the carrying capacity represents the average potential resource available to organizations. Actual resource use may deviate from this carrying capacity in the short term, and this creates a landscape of hills, representing regions of social space that are over-exploited, and valleys, where resources are relatively abundant. Other things being equal, McPherson expects organizations to move 'down hill'. Differentiation will result if the landscape contains more than one valley. It is worth noting that this model also explains why there are limits to differentiation (the number of valleys) and why it is difficult for organizations to change from one form to another (they would have to get over a hill to reach a different valley).

Notice that there are similarities between McPherson's model and that of Nelson and Winter. Both explain how organizations can adapt by changing some key internal characteristic; members for McPherson, routines for Nelson and Winter. Although both models are dynamic, both would predict the achievement of an equilibrium if the environment remains stable. However, if the environment changes in any way (including the entry of new competitors), there may be changes in the organizations themselves. Different routines might now prove more effective, or new regions of resource space might become available. If the environment is constantly changing, the organizations may also be constantly changing. But both these models demonstrate that in evolutionary theories, it is not really appropriate to think of the environment as endogenous. What determines the fitness of one set of routines or niche location is, in part, the characteristics of the other firms in the environment. For example, it might be that different routines are more likely to confer success on an organization operating in a very concentrated market than in an unconcentrated environment. If so, we would expect to observe constant churning as the factors that affect the fitness of an organization are constantly changing. This phenomenon, well known to managers, is called the Red Queen problem in the ecological literature, after the character in *Alice Through the Looking Glass* who was forced to run as fast as she could just to stay in the same place.

There are also important differences between these two approaches. In McPherson's model, what is selected for is being in a particular region of resource space.

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Those organizations that find themselves in a valley will grow, those at a peak will shrink and/or move. Variation is the result of differential utilization of resources, such as recruitment of members with different demographic characteristics. McPherson's model does not involve deliberate managerial action; the organizations move through resource space automatically, not as a result of strategic choices. However, it is not incompatible with such choices being made. The leader of a voluntary organization or the proprietor of a newspaper could use McPherson's ideas to plan a recruitment drive or a marketing campaign in a valley. But the model will work even in the absence of such actions.

Figure 4.2 shows another possible outcome of competition. Instead of the niches shifting away from each other, but staying the same width, in this case the means of the niches remain the same, but they become narrower. The result is, however, the same: the overlap

between the two niches is greatly reduced. In this case, organizations respond to competition by becoming more specialized. They consume a narrow range of resources. Competition is reduced by specialization, and in addition specialist firms may develop greater expertise; the firm that concentrates on a single market segment probably has a higher market penetration in that segment than does a generalist organization.

Apart from McPherson's work, there have been several other studies that have used similar concepts. Studies such as those by Baum and Mezias (1992) into Manhattan hotels and by Baum and Singh (1994b, 1996) into children's day nurseries have investigated how organizational founding and failure rates respond to competition, with competition being a function of niche overlap. In the most recent of their series of articles, Baum and Singh also studied how organizational niches change in response to competition. They were able to show that organizations' niches do respond by contracting or expanding in response to competition. A recent study by Barron found evidence that newspapers and magazines respond to increasingly intense competition by differentiating themselves from their competitors. That is, there is good evidence that niche positions shift in response to fluctuations in the level of competition.

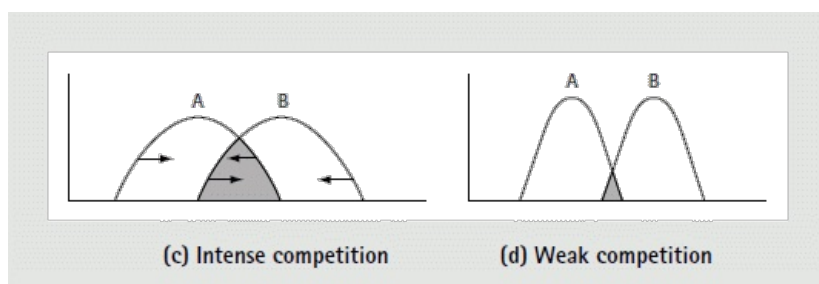


Fig. 4.2 Competition affecting niche width

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4.5 Industry Evolution

In this part of the chapter I will be describing a theory developed primarily by the sociologists Mike Hannan, John Freeman, and Glenn Carroll. The theory is called organizational ecology (or sometimes population ecology). They typically consider the organization (firm or establishment) to be the unit of selection, rather than some characteristic of the organization, such as a routine. It is assumed that what is being selected for is organizational survival, and the key source of new variation is the entry of new organizations rather than the adaptation of existing firms. They often focus on the rates at which organizations enter and exit a market, sometimes on organizational growth rates, rather than on change at the organizational level. The focus of their interest is often on explaining the diversity of organizations of different forms that exist in different types of markets. Unlike Nelson and Winter, who claim that their approach is Lamarckian, meaning that it involves organizations engaging in deliberate search for new routines when performance is poor, organizational ecologists typically claim to be Darwinian. They stress the inertia of organizations; their resistance to change. However, they do study change at a different level of analysis: that of the industry, market, or 'population' of organizations.

Reviews of organizational ecology usually start by making reference to Hannan and Freeman's famous article published in 1977. This article, along with others published around the same time by, for example, Aldrich (1979) and McKelvey (1982), was the foundation for the large body of research that has developed over the past twenty years or so. The central question posed by Hannan and Freeman was 'why are there so many kinds of organizations?' In other words, the key ecological research question is explaining how 'social, economic, and political conditions affect the relative abundance and diversity of organizations and attempt to account for their changing composition over time' (Baum 1996: 77). To this end, most empirical research in this tradition has concentrated on explaining the rates at which new organizations are founded and/or the rate at which existing organizations disband, a sub-branch of organizational ecology that is sometimes called organizational demography.

A striking empirical regularity has emerged in the course of twenty years of ecological research (and also in recent work in evolutionary economics). The regularity is in the trajectory followed by the number of organizations in a population. The numbers start small, and grow slowly at first but at an accelerating rate. Growth in numbers slows again, reaching a peak and then declining. In some cases, the decline has been reversed in recent years. However, the decline in numbers is not a result of the organizations becoming less successful in any simple sense, because if one also collects data on some measure of the scale of the organizations' activities, this typically continues to increase long after the decline in the number of organizations.

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4 Evolutionary Theory

Figure 4.3 shows a typical example: newspapers in Ireland from the early eighteenth century to the mid-1970s. One of the important things to note is that a very diverse set of organizations have been found to follow this path, including manufacturing, service, and non-profit organizations as well as labour unions. This implies that a very general mechanism could be operating—more general, for example, than is provided by the industry life cycle model recently developed by some evolutionary economists (Klepper 1997).

One model has been used to explain founding, failure, and growth rates—the density-dependence model. I will discuss this first, followed by other models that use characteristics of the organizational population as an explanatory variable. Failure and growth models can also take into account characteristics of individual organizations; I shall discuss these next. Finally, I will discuss models that rely on other characteristics of the environment for their explanatory power.

4.5.1 Density-Dependence

The density-dependence model has become so important that it is sometimes mistakenly thought that density-dependence is population ecology. However, the

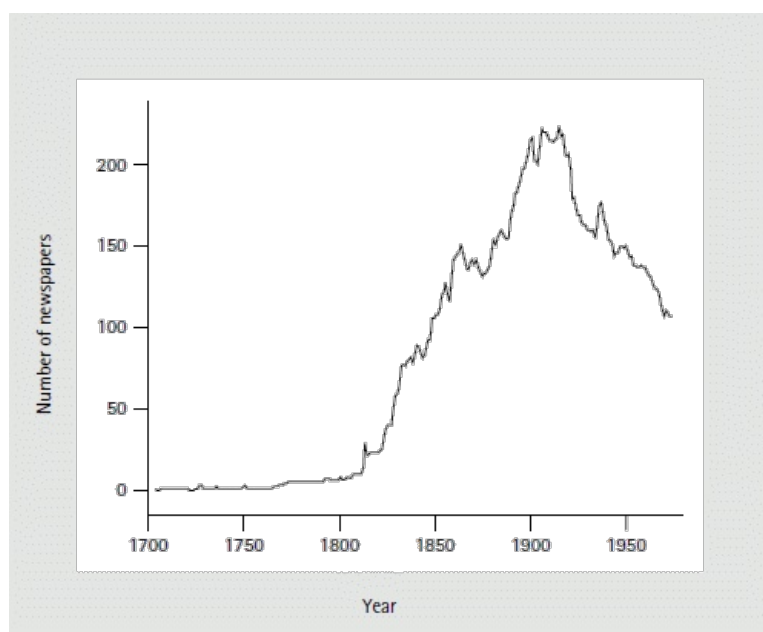


Fig. 4.3 Number of Irish newspapers, 1704-1974

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model was first reported by Hannan in 1986, and the first empirical study that used it was published in 1987. Density is defined simply as the number of organizations in a population. The density-dependence model uses functions of density to explain founding, failure, and growth rates. Density has this effect via its relationship to two important variables: legitimacy and competition.

4.5.1.1 Legitimacy

One of the important and distinctive features of organizational ecology research has been the extent to which it has become linked to institutional theory. It is important to emphasize that the institutional theory of organizations is completely different from institutional economics. In particular, it is not a rational-action theory. The roots of the institutional theory of organizations are important articles by Meyer and Rowan (1977) and DiMaggio and Powell (1983). The essence of their work is that organizations enhance their survival chances if they are able to achieve legitimacy.

Most ecological research has concentrated on cognitive legitimacy. An organizational form that is legitimate in this sense is taken-for-granted as the natural way of structuring some type of collective action. This does not imply any evaluation either of pragmatic interest or of moral acceptability. Taken-for-grantedness can be considered an 'end point' of a process of legitimation, when enough (most) people both know about an organizational form and accept it as a natural way of achieving some end. The legitimation process is viewed as the

spread of knowledge and beliefs through a certain set of actors. Other things being equal, gaining legitimacy means that foundings will be more numerous, risk of failure will decline, and rates of organizational growth will increase.

One of the difficulties that researchers have to deal with when wanting to test hypotheses about the effects of legitimacy on the vital rates of organizations is how to measure it. Indeed, much of the debate that has taken place about the use of legitimacy in ecological models has centred on the measurement issue, particularly with respect to the use of one particular variable: population density, which is defined as the number of organizations in the population or market.

The theoretical link between density and cognitive legitimacy is straightforward. Hannan argues that an organizational form cannot be taken-for-granted as the natural way to effect some kind of collective action when it is very rare. Therefore, when density is low, legitimacy will also be low. Increasing numbers of organizations, however, will raise people's awareness of the existence of the organizational form. Therefore, there should be a positive association between density and the legitimacy of an organizational form. Hannan's density-dependence model also assumes that there is a ceiling on this effect: legitimation is a process or a variable rather than a state, but it cannot go on increasing forever. The final step in the density-dependence model, as it applies to legitimacy, is to posit an association between the degree of legitimacy of an organizational form and the rate at which

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new organizations are created and existing organizations exit the population. Increasing legitimacy is expected to make it easier for organizations to obtain the resources they need to thrive, be they skilled employees, customers, members, contracts, government approval, and so on. This is expected to raise founding rates and lower failure rates, always subject to the ceiling on the effect. There are a number of different functional forms that could be used to model this relationship. The most common is:

$$\lambda_t \propto L_t;$$
$$L_t = N_t^\alpha, \quad 0 < \alpha < 1,$$

where λ_t is the founding rate at time t , L_t is legitimacy, and N_t is density. Models for failure and growth rates can easily be developed by analogy.

4.5.1.2 Competition

We have already seen that competition plays a key role in evolutionary models, and organizational ecology is no exception. Observing competition between organizational populations directly usually proves to be difficult because competitive influences are often indirect and diffuse. According to the theory, adding an organization to the population has only a slight effect on the frequency and strength of competitive interactions when density is low relative to abundance of resources. But when density is high, adding an organization strongly increases competition. In other words, the qualitative implication is that density (N) increases competition (C) at an increasing rate:

$$\frac{dC}{dN} > 0 \text{ and } \frac{d^2C}{d^2N} > 0.$$

The literature on density dependence and competition has assumed an exponential relation between competition and the square of density:

$$C_t = c_t \exp(bN_t^2), \quad b > 0,$$

where c_t represents the effects of factors other than density that affect levels of competition. Choice of an exponential relationship rather than a simple linear relationship between competition and the square of density reflects the definition of a rate as non-negative. As far as can be determined from empirical research, this choice of specification does a reasonably good job of representing density dependence in the vital rates.

The model I have presented applies to founding rates, but the underlying theory is just as applicable to rates of organizational failure and growth. Increasing legitimacy is expected to reduce failure rates and cause growth rates to rise. Higher density should raise the risk of failure and lower growth rates. It is straightforward to derive the analogous functional forms for the relationship between density and failure and growth rates.

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4.5.2 Environmental Variation

The final category of research into organizational demography that I would like to discuss is that which investigates the role of

environmental variation. For example, Freeman and Hannan (1983) focus on two aspects of environmental variation: variability and grain. Variability refers to the variance of environmental fluctuations about their mean over time. Fine-grained variation implies that this variance consists of many small, rapid changes. Coarse-grained variation, on the other hand, consists of long but large variations. Making the assumption that environmental variations are large relative to the organizations' ability to adapt to them, Hannan and Freeman (1989) made predictions about the relative ability of generalist and specialist organizations to survive different types of environmental variability. These are summarized in Figure 4.4.

The intuition behind these predictions is as follows. Specialists are always favoured when grain is fine because they can survive the short periods over which the environment is not favourable to them. The variability of the environment is, therefore, not a significant factor. When the grain is coarse, however, generalists are favoured when variability is high because it is necessary to have a reasonable degree of fit to whatever environmental conditions are likely to be encountered, because these conditions are likely to persist for a relatively long time. Specialists are still favoured when variability is low, however. Hannan and Freeman (1989) tested

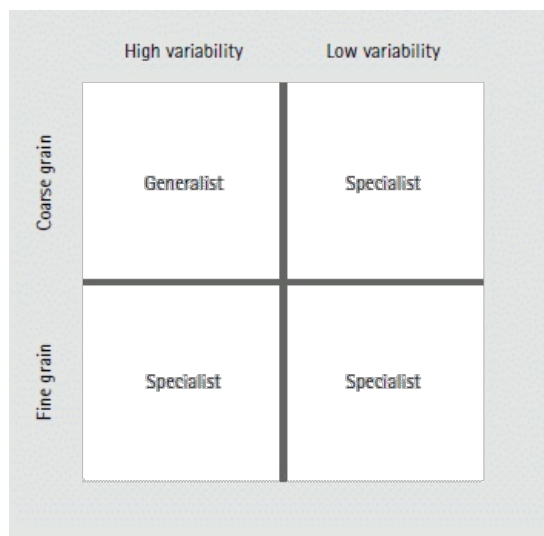


Fig. 4.4 Niche width theory predictions of relative fitness of specialists and generalists

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these ideas in an empirical study of the failure rates of restaurants, in which they were supported.

4.5.3 Population Dynamics

4.5.3.1 Density Decline

I began the section on organizational demography by pointing to empirical regularities in the trajectories followed by density and mass in many organizational populations. It is important to point out that the density-dependence model cannot explain this pattern. On its own, the density-dependence model predicts that density will follow an S-shaped trajectory. That is, it can account for the rise of a population to a peak, but not its subsequent decline. Recent efforts to explain this phenomenon that seem to hold out the most promise have been proposed by Hannan, Barnett, and Barron. They are summarized in Barron (2001).

Hannan's model implies that density becomes 'decoupled' from legitimacy and competition as a population matures. Legitimacy is relatively stable, and not easily eroded even if the population density declines. Competition also becomes decoupled as organizations become more fixed into networks of alliances, develop specialization, and so on. In other words, the population becomes more 'structured' as it gets more mature.

The latter hypothesis is particularly interesting. In fact, we know very little about the dynamics of this kind of structure, and this is a subject ripe for research. Hannan's model works in the sense that declining density no longer reduces competition, and so does not allow founding rates to rise. However, it is not clear why the elimination of an organization does not reduce competition, notwithstanding the structuredness of the population. More direct evidence is needed.

Barron's model is unique in addressing organizational growth as well as founding and failure. It is thus uniquely placed to explain both decline in density and increase in the total activity of the industry as a whole. He found evidence that increasing competitive intensity

does not have the same impact on all organizations in a population. Rather, organizations that have some sort of survival advantage gradually come to predominate in the population. Although any source of advantage would operate in the same way, scale is particularly important. This is partly because the liability of smallness is so common, but also because, once the process has started, it may become self-accelerating. Surviving organizations may be able to take over the resources previously utilized by failed organizations, growing still more, and so increasing their survival advantage.

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4.5.3.2 Resource Partitioning

Ecological theory has also been used to explain the growth in the number of small firms that has been observed in a number of industries in recent years. The original model was developed by Carroll (1985) with reference to the local newspaper industry in the United States, but has since been applied to US beer brewing, Italian cooperative banks, US wineries, and British car manufacturers among others.

The theory presumes that some aspect of the delivery of a product to market is subject to economies of scale, so it only applies to industries in which this is true. The existence of economies of scale tend to result in large organizations driving smaller competitors out of business. The large organizations take over the market share of the failing smaller organizations and so get larger and also tend to become more generalist in that their customers are drawn from larger market segments. As a result, markets become highly concentrated.

Most strategy theory predicts that under these conditions, entry barriers are formidable and so new entrants into such markets will be very rare. Carroll's theory, however, makes the opposite prediction once some threshold level of concentration is passed. He argues that the fact that large organizations have to produce products that appeal to mass markets makes it difficult for them to capture customers in peripheral market segments. The more concentrated a market becomes, the less likely it will be that these peripheral markets will be the subject of intense competition from large generalists. This creates opportunities for small, specialist firms to enter in these peripheral niches. So, Carroll predicted that as market concentration rises, the founding rate of specialist firms will rise and their mortality rate will fall. Figure 4.5 shows, in a simple two-dimensional resource space, how increasing concentration in a mass market can result in increasing amounts of space in the peripheral regions of the market. Figure 4.5(a) shows a market in which there are three generalist firms at the centre of a market. If the market becomes more consolidated, these three firms are replaced by firm F_4 , which though larger than any of its predecessors, leaves larger spaces around the periphery of the market. Carroll and Hannan (2000) show how this argument can be extended to more dimensions and describe recent research evidence.

Perhaps the best example of this phenomenon that has been studied by organizational ecologists is provided by the growth of microbrewers and brewpubs in the highly concentrated US beer brewing industry. Mass producers account for over 80 per cent of the market, but despite that by 1995 around 450 microbrewers were operating, all of which had been founded in the previous twenty years, while the rate of growth of this sector showed no sign of slowing. The beer market may be particularly conducive to small-scale enterprise, because mass market producers have had trouble convincing consumers that their premium products are indeed premium, because of the negative associations customers in this market segment have for producers like Budweiser. Carroll and Hannan (2000) speculate about

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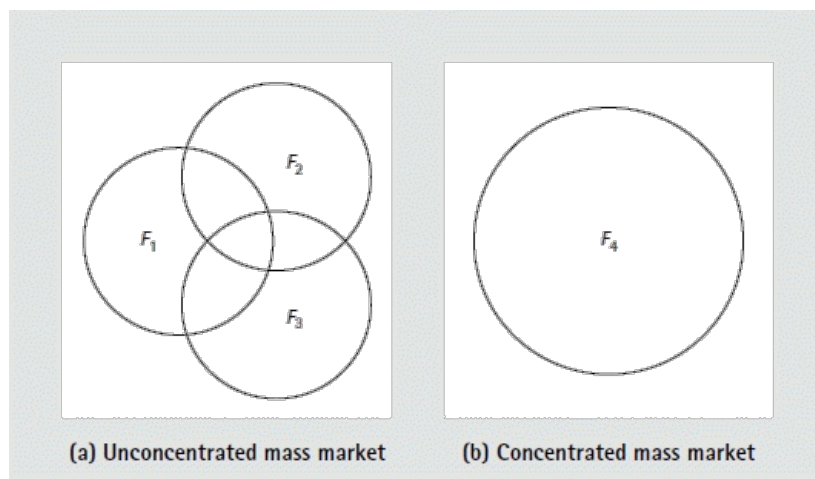


Fig. 4.5 Concentration in mass markets

other industries in which identity might play a role in resource partitioning; candidates include music recording, book publishing, and newspapers.

4.6 Conclusions

Evolutionary approaches to understanding the dynamics of organizations and industries are developing very rapidly. In contrast to many of the approaches discussed in other chapters, there have so far been relatively few attempts to develop normative theories based on these models. However, Carroll and Hannan (2000) discuss a number of studies that have policy implications. For example, Barron, West, and Hannan (1998) studied the effects of deregulation on the pattern of interactions among competing organizational forms in the depository sector of the financial services industry in New York. They found an increase in instability and uncertainty within the industry, but also that some organizational forms were prospering in the post-deregulation era. Other studies have focused on the regulation of airlines and telephone companies, while interesting work has begun on the employment implications of some of these models.

Nevertheless, it has to be said that this sort of work is much less developed than the theoretical models that I have described above. However, given the growing

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interest in the use of evolutionary approaches among scholars in a range of disciplines it seems certain that the use of these models to inform policy and practice will increase.

References

- Aldrich, H. E. (1979). *Organizations and Environments*. Englewood Cliffs, NJ: Prentice-Hall.
- (1999). *Organizations Evolving*. London: Sage.
- Barron, D. N. (1999). 'The Structuring of Organizational Populations'. *American Sociological Review*, 64: 421–45. [Link](#)
- (2001). 'Simulating the Dynamics of Organizational Populations: A Comparison of Three Models of Organization Entry, Exit and Growth', in A. Lomi and E. Larsen (eds.), *Simulating Organizational Societies: Theories, Models and Applications*. Cambridge, Mass.: MIT Press.
- West, E., and Hannan, M. T. (1994). 'A Time to Grow and a Time to Die: Growth and Mortality of Credit Unions in New York City, 1914–1990'. *American Journal of Sociology*, 100: 381–421. [Link](#)
- (1998). 'Deregulation and Competition in Populations of Credit Unions'. *Industrial and Corporate Change*, 7: 1–32.
- Baum, J. A. C. (1996). 'Organizational Ecology', in Stewart R. Clegg, Cynthia Hardy, and Walter R. Nord (eds.), *Handbook of Organization Studies*. London and Thousand Oaks, Calif.: Sage, 77–114.
- and Mezias, S. J. (1992). 'Localized Competition and Organizational Failure in the Manhattan Hotel Industry, 1898–1990'. *Administrative Science Quarterly*, 37: 580–604. [Link](#)
- and Singh, J. V. (1994a). *Evolutionary Dynamics of Organizations*. Oxford: Oxford University Press.
- (1994b). 'Organizational Niches and the Dynamics of Organizational Founding'. *Organization Science*, 5: 483–501. [Link](#)
- (1996). 'Dynamics of Organizational Responses to Competition'. *Social Forces*, 74: 1261–97. [Link](#)
- Campbell, D. T. (1965). 'Variation and Selective Retention in Socio-Cultural Evolution', in H. R. Barringer, G. I. Blanksten, and R. W. Mack (eds.), *Social Change in Developing Areas: A Reinterpretation of Evolutionary Theory*. Cambridge, Mass.: Schenkman, 19–48.
- (1974). 'Evolutionary Epistemology', in P. A. Schilpp (ed.), *The Philosophy of Karl R. Popper*. LaSalle, Ill.: Open Court Publishing, 413–63.
- (1994). 'How Individual and Face-to-Face Group Selection Undermine Firm Selection in Organizational Evolution', in J. A. C. Baum and J. V. Singh (eds.), *Evolutionary Dynamics of Organizations*. Oxford: Oxford University Press, 23–38.
- Carroll, G. R. (1985). 'Concentration and Specialization: Dynamics of Niche Width in Populations of Organizations'. *American Journal of Sociology*, 90: 1262–83. [Link](#)

— and Hannan, M. T. (eds.) (1995). *Organizations in Industry*. Oxford: Oxford University Press.

end p.102

— (2000). *The Demography of Corporations and Industries*. Princeton: Princeton University Press.

DiMaggio, P. J., and Powell, W. W. (1983). 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields'. *American Sociological Review*, 48: 147–60. [Link](#)

Freeman, J. H., and Hannan, M. T. (1983). 'Niche Width and the Dynamics of Organizational Populations'. *American Journal of Sociology*, 88: 1116–45. [Link](#)

Hannan, M. T., and Carroll, G. R. (1992). *Dynamics of Organizational Populations: Density, Legitimation, and Competition*. Oxford: Oxford University Press.

— (1995). 'An Introduction to Organizational Ecology', in G. R. Carroll and M. T. Hannan (eds.), *Organizations in Industry*. Oxford: Oxford University Press, 17–31.

Hannan, M. T., and Freeman, J. H. (1977). 'The Population Ecology of Organizations'. *American Journal of Sociology*, 82: 929–64. [Link](#)

— (1984). 'Structural Inertia and Organizational Change'. *American Sociological Review*, 49: 149–64. [Link](#)

— (1989). *Organizational Ecology*. Cambridge, Mass.: Harvard University Press.

Klepper, S. (1997). 'Industry Life Cycles'. *Industrial and Corporate Change*, 6: 145–81.

McKelvey, B. (1982). *Organizational Systematics*. Berkeley: University of California Press.

McPherson, J. M. (1983). 'An Ecology of Affiliation'. *American Sociological Review*, 48: 519–35. [Link](#)

— and Ranger-Moore, James R. (1991). 'Evolution on a Dancing Landscape: Organizations and Networks in Dynamic Blau Space'. *Social Forces*, 70: 19–42. [Link](#)

Meyer, J. W., and Rowan, B. (1977). 'Institutionalized Organizations: Formal Structure as Myth and Ceremony'. *American Journal of Sociology*, 83: 340–63. [Link](#)

Nelson, R. R., and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Belknap.

Peters, T. (1992). *Liberation Management*. London: Macmillan.

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5 Institutional Approaches to Business Strategy

Ray Loveridge

5.1 Introduction

THE objectives of this chapter are to set out the main institutional parameters to strategic decision-making; to explain the process by which the institutionalization of these parameters occurs; to highlight the significance of the mode of recognition and sponsorship of institutionalized stakeholder groups; to emphasize the reflexive nature of this process in the formation of strategic frames and recipes; and to outline some of the important theoretical interpretations of institutions and institutionalization. We first explore the meaning of institutions as the contextual site for strategic decisions. The various strands of institutionalist interpretations of business strategy are next outlined and in the following three sections the main schools of *bounded rationality*, of *population isomorphism*, and *comparative systems* are briefly described. The manner in which the life-cycle metaphor can be applied to the process of institutionalization is demonstrated in the following section. The penultimate and final sections offer a critique of some theoretical approaches to institutions.

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5.2 Rules of the Game

The rationale of business strategy is usually seen to be concerned with the long-term allocation of organizational resources in such a way as to ensure the continued survival of the firm and the successful pursuit of its purpose and goals. By the same token this exercise can be seen to involve positioning the organization in relation to its social, political, and market context in such a manner that it is seen to create significantly valued services for its various stakeholders when compared with all other known uses for their assets within these contexts. Over the last decades two polar emphases have arisen in prescriptive teaching and writing on the subject. One lays emphasis on market position and the external shaping of the firm's environment; it is particularly present in Michael Porter's conceptualization of business strategy (1980, 1985, 1990). The other view focuses on the internal capabilities of the firm and on the appropriation and internalization of assets, particularly knowledge assets, both human and technical (embodied or codified), that become unique to the appropriating firm. The work of Penrose (1959), Teece (1986), and Kogut and Zander (1993) are especially associated with this approach. Perhaps the best way to present this academic debate is to extend an analogy used by the distinguished economist Alfred Marshall in describing the workings of the marketplace. Context and capability provide two blades of strategic scissors that come together in the creation of a corporately value-added output.

But, just how this matching is achieved in the ongoing process of transacted executive decisions, and in the face of competing rationales or 'logics of action' is, to the institutional theorist, not simply the outcome price or cost competition in a timelessly free market. It is essentially a socio-political process involving the creation and maintenance of a recognized source of authority and the establishment of rules of conduct (Child 1972; Karpik 1972; Mintzberg 1973) Indeed it can be proposed that the emergence of the discipline of Strategic Management within the academic study of business activity was underpinned by studies such as Chandler's (1977, 1990) historical demonstrations that 'organizational structure followed strategy' in the creation of the modern corporation. In other words the 'market structure-performance-strategy' argument (see later chapters, especially Pitkethly, Chapter 9) had been reversed by managerial agents creating or shaping their own markets, fields, or niches. (See Whittington and Mayer 2000 for an elaboration of this debate.)

But, even if one accepts the notion of strategy as a rational prioritizing of business goals and corporate missions, there are likely to be differences among the executive team, and across the organization and external stakeholders; differences around both long-term ends or short-term ways of implementing them (Kaplan and Norton 1996; see Figure 5.1). The way in which these differences are settled tells us much about the institutionalized structures and styles of control and coordination within the corporation, and, perhaps, within the society in which it is embedded.

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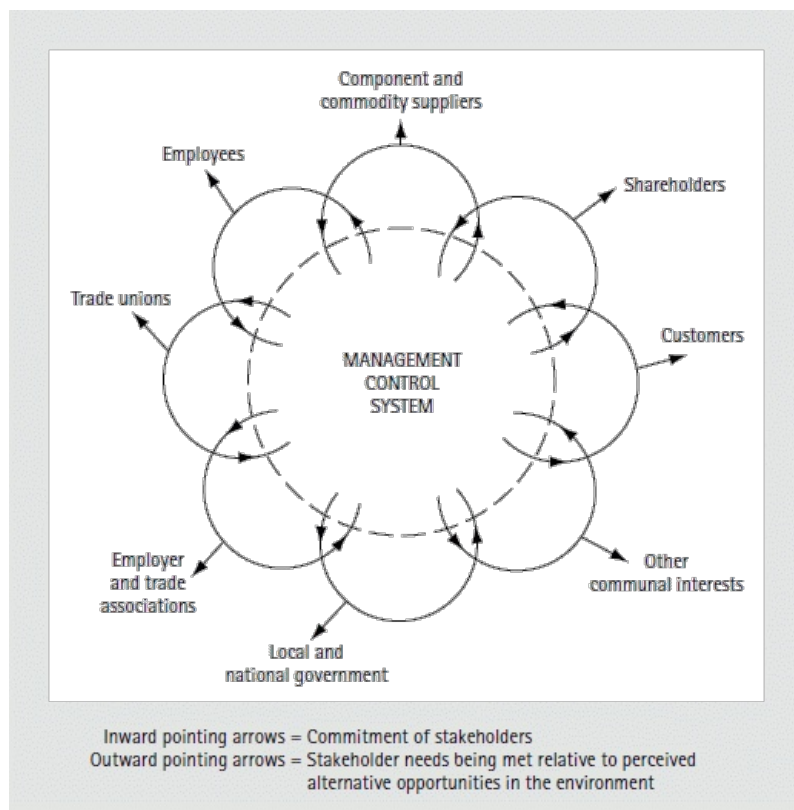


Fig. 5.1 Stakeholders' links

But, the manner in which decision frames, and substantive outcomes are shaped by prevailing structures of formal and informal rules, and by cognitive or 'internalized' norms, is of equal importance to an understanding of the strategic process (Johnson 1987; Huff 1982).

This may be particularly true where the product is a direct service or intangible outcome shaped by the status and reputation of the provider and implicit within the delivery of the service (see Segal-Horn, Chapter 16). In the professional sphere, for example, the judgement of the service provider provides a direct value for the client but is embedded in a highly institutionalized body of knowledge and is couched in a language that sets boundaries to the latter's understanding of its rationale. Without some understanding of the rules, trust in the reputation of the professional agent is critical. It is most explicit in medicine perhaps, but in the presentation of company performance the role of the auditor also has some significance for the investor.

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At the other end of the contextual spectrum, large-scale markets are only possible with an underlying degree of order and predictability. This order relies on some minimum amount of trust in communication, usually institutionalized in common language and common currencies. In mass marketing, price-setting, rather than haggling, is normal, while in high-risk transactions, agents such as lawyers and accountants acquire reputational title as 'fit and proper persons' in the brokering, monitoring, or carrying out of contracts. Indeed, most world-view theorists (e.g. Marx and Engels 1888; North 1981) suggest that the organization of modern capitalism could not have emerged without the institutionalization of property rights and contractual obligation. In the absence of an acceptance of these inter-party claims on one another, it is difficult to see how capital accumulation could take place in the remote and abstract forms of global bureaucracies, in the exchange of securities or promises to pay and, ultimately, in communicating across 'cyber-space'.

Trust in 'the system' and in agencies that broker its workings, will, usually, ultimately depend on the parties' ability to maintain these rights and responsibilities—or what eighteenth-century European political theorists described as a *social* contract. On the other hand, as Kay (1993) has recently pointed out, in a world of shifting alliances and the networking of value-adding processes it becomes increasingly difficult to determine the formal property rights of contributors to the value-adding process in a legal sense, let alone to monitor and to regulate them. A good example may be found in the breakdown of the informal norms of 'gentlemanly capitalism' in the City of London and in the subsequent efforts to restore a formal regulatory order within financial markets through the Financial Services Agency (Augur 2000).

Beyond the level of such local 'communities of practice' (Dougherty 1992), relational boundaries formed around mature industries, such as those described by Porter's five forces and the 'sectoral sets' that exist within them (McGee, Chapter 10), appear also to be under threat

from new technology, shifting lifestyles, and globalization. Even the sovereignty of nation states appears challenged by the workings of international markets, particularly by movements of capital, by the alternative governance structures of the transnational corporation (TNC) and other transnational agencies as well as the erosion of local currencies and languages (Hirst and Thompson 1996). In these circumstances the mathematically literate strategist is likely to find the metaphors provided by Chaos Theory extremely plausible. Nevertheless, for the institutional theorist one of the fundamental questions that should be asked by the entrepreneur entering upon a fresh enterprise remains 'What are the rules of the game within this arena?' (Tolbert and Zucker 1996).

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5.3 Schools of Institutional Theory

The reasons for this advice differ across the variety of schools of institutional theory that presently exist in the literature. Among most recent institutional economists such as Williamson (1975), price and cost rationales continue to be the dominant influences that shape commitment to playing according to the rules. Institutions have evolved historically to facilitate exchange or to represent stakeholder collective interests; the role of the state as an arbiter of conflicting interests and legitimator of the players' credentials is central to many earlier economic historical approaches such as Commons (1900) and the, so-called, nineteenth-century German School (Tribe 1995). For other economists, most notably Nelson and Winter (1982), the effects of institutionalization are to be seen in the manner in which knowledge is built up *within* the firm through the evolution of routines. Through the accrual of these understandings of best practice, the firm derives its unique competences or human capital.

Of particular importance in the development of the institutionalist approach over the last quarter century has been the contribution of Oliver Williamson (1975, 1982). His explanation of the development of corporate hierarchy, markets, or networks in terms of a relatively simple assessment of contractual overheads has gained widespread usage, particularly in the analysis of public services. Perhaps unsurprisingly it is also in the sphere of public administration that one finds the most sophisticated evolution of a neo-rationalist approach to strategy in the work of the Carnegie School or, more particularly, of Simon (1947) and March and Simon (1958). The latter usually see strategy as the outcome of socially and politically constrained or 'bounded rationality'. (In his later work March has broadened these earlier assumptions, see below). The limited nature of the single entrepreneur's ability to process information and convert it to intelligence is seen as a primary reason for organizational hierarchy (Simon 1991). But, within the organization, a strategic balance must be obtained between the *exploration* and *exploitation* of intelligence (March 1999).

Other administrative theorists such as Lindblom (1959) have described strategic decision-making as 'the science of muddling through', which in essence is not far removed from Quinn's (1989) description of 'logical incrementalism' and Mintzberg and Waters's (1985) 'emergent strategy'. All suggest an incremental exploration of the strategic environment in a manner that allows each action to follow from the last. Cohen, March, and Olsen (1972) contributed to the notion of organizational complexity by describing their internal workings as similar to a garbage can. By this they meant that organizations developed inventories of 'solutions' to past problems. These inventories were looking for occasions which gave opportunities for experts to deliver these 'solutions'. The timing and juxtaposition of events did not always allow this to happen, but when it did there was no

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guarantee that the expertly stored solution would fit the current problem. This analysis was based on an empirical study of a parent-teacher association. A cynic might, perhaps, see the activities of business consultants as providing further tests for the model.

By contrast sociological approaches emphasize the social affiliative aspects of institutions as modes of valued patterns of ordered interaction in which perceptions of price and cost can be shaped by these wider social pressures. The latter 'signals' can, indeed, become outcomes of institutionalized norms within fields or industries (for example the 'going rate' for the job) rather than taken to be indications of directly competitive forces. For the sake of brevity, we might distinguish between only three broadly based sociological approaches. (For more extensive surveys, see Powell and DiMaggio 1991; Scott 1995; and Egeberg and Laegreid 1999) The first of these three categories can be labelled as adopting an interpretive or relational approach to social *systems*. Their approach can be summed by Lockwood's (1964) belief that systems can be *technically* well integrated but *socially* not, or vice versa. Emery (1967) and others at the Tavistock Institute in London constructed a similar design perspective around this belief. In more recent times the systems perspective has become particularly important to the historical comparative study of business institutions across nation states (Whitley 1992; 1999).

The second and most recent epistemic grouping is the self-styled New Institutionalists (or NI—not to be mistaken for Williamson's title of New Institutional Economics (NIE) to describe his own contribution). This school, in a somewhat self-conscious way, traces its origins from an article written in 1983 by DiMaggio and Powell entitled the 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields'. As this title suggests, the theory postulates that *populations* of organizations will come to resemble

each other over time and that this conformism will make it difficult for new entrants to operate successfully without imitating or matching (isomorphically) the dominant mode of operation within the boundaries of the *field*, thus establishing a socially constructed 'ironcage'. The biological analogy used in New Institutionalism, and its focus on population cohorts, allows considerable read-overs to organizational evolutionary theory (see Barron, Chapter 4) and to population ecology approaches, for example in the manner in which firms form niches within their fields (see McGee, Chapter 10).

A third perspective that can be distinguished among institutionalists is that of the conflict or *dialectical* school. Sometimes this conflict is seen as continuous and takes the form of interest group fracas over scarce resources. Management control is seen to evolve as a series of compromises around, and *co-optations* of interested parties to particular strategies and goals (Selznick 1949, 1957) But these personal and collective compromises with regulatory authority can become institutionalized as an acceptable means to retaining the order and direction required for the system's survival (Cooper et al. 1996). By the same token different activities within the firm, or social system, can appear logically or ethically inconsistent but be held together

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either by a dominant authority or by the known costs of disruption for all participants (Friedland and Alford 1991; Fligstein 1990; Roy 1997) 'The whistle-blower' phenomenon is still relatively rare but, generally, the outcome of such cases serves to illustrate the personal costs of unconformity in an apparently liberal society. This view is explored at greater length in Section 5.7 The schools mentioned previously are now described at greater length.

5.4 Market-Rational Approaches

As suggested above, a shared assumption among most institutional economists is that institutionalized practices derive from market-based orientations on the part of actors and should be evaluated in these value-adding terms. Hence, established practices, whether formal or informal, have to be evaluated either as *obstacles* to achieving efficiency in the workings of organizations and markets, or, as *social assets* unique to their possessors and, therefore, potential producers of monopoly rents. The decision on the category in which such rule-like behaviour should be placed is quite critical for the strategist. Two examples will suffice to illustrate the point. Upon the collapse of the British Railtrack company, following a series of accidents involving many customer deaths, one former senior manager commented that the 'de-layering' of management that occurred after its previous privatization resulted in 'a collective loss of memory on the basics of running a railway' (quoted by John Willman in the *Financial Times*, 8 October 2001, p. 26). The same importance given to the embodiment of institutionalized knowledge in strategic groups of employees is contained in the experiences of an aircraft instruments firm studied by the author. A few years ago it received an order for a revolutionary new product after three years of trials by the customer in a prototype aircraft. Only then did they discover that the complete design team responsible for the product's creation had been on short-term contracts and their software was insufficient to rebuild the prototype instrument. In both cases senior management had lost the knowledge of the rules that had secured the company's future order book.

Williamson (1975) sees the costs of protecting such idiosyncratic assets from opportunistic appropriation in an uncertain market, and over an extended period, as leading to 'market failure'—or the need for an organizational hierarchy. These costs are described as transaction costs. They relate to the relative costs of administering complex contingencies written into long-term contracts with suppliers and customers as against those of administering open-ended employment contracts. If the former become greater than the latter, then vertical integration is economically

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more efficient than external contracting. If the opposite is true, then a strategy of outsourcing and spinning-off of internal processes can be justified. This relationship is essentially similar to the 'make or buy' decision often in the past left to lowly purchasing officers. Strategically it can be seen as positioning the boundaries of the firm. Over the last twenty years or so this realization can be seen to have shaped strategic discourse in both the public and private sectors as executives strive to find the most flexible modes of strategic sourcing and technological learning. The essence of the concept is contained in a much older contribution by Coase (1937) but has been developed by Williamson (1982) to cover a range of strategies from spot markets to the utility of creating trustful relationships in the form of *clans*, *teams*, and *networks* (see also Alchian and Demsetz 1972; Ouchi 1980). Buckley and Casson (1976) and Teece (1976) made the, then, revolutionary suggestion that the competitive advantage of the multinational *corporation* (MNC) lay in its ability to transfer unique technological knowledge *internally* across frontiers more cheaply than it could be bought and sold by locally based companies. These contributions might be seen as extremely important in shifting the emphasis in international economics from the relative endowments of national states and markets to the structural endowments of the MNC. Perhaps of equal importance was the suggestion that the transaction costs of the *creation* and *appropriation* of idiosyncratic knowledge was as important as its defence and protection (Teece 1986; Loveridge 1990).

As is suggested by this discussion, and by the examples given above, the assets seen to be unique to the firm are normally seen to be the specific knowledge embodied in the services of employees. An important form of institutionalization in all theoretical approaches is seen to be the social construction of language and the codification of knowledge. The approximate standardization of meaning in a codified way, however solipsistic or contextually shaped one's understanding, is a basic precondition for formal communication and organization. However, in the work of Nelson and Winter (1982), it is recognized that much of the core knowledge possessed by the firm is contained in an experiential form embedded in 'custom and practice'. This may be contained in non-verbalized *tacit* skills or in colloquial languages of the workplace (Polanyi 1966). It is likely, however, that this knowledge will become increasingly rationalized and embodied in codified forms both for communication inside and outside the firm and for the importation of knowledge and skills. The manner in which the entrepreneur should value and treat the services rendered by contracted labour is seen by Williamson (1982) as contained in the two dimensions set out in Figure 5.2. These are also to be found in the earlier work of Loveridge and Mok (1979), where the quadrants are described in terms of the segmentalization of the internal labour market of the firm. Very similar dimensions are used in the, even earlier, contingency analysis of Perrow (1970) in relating organizational forms to the *analysability* of information flows and *regularity* of work flows derived from market conditions.

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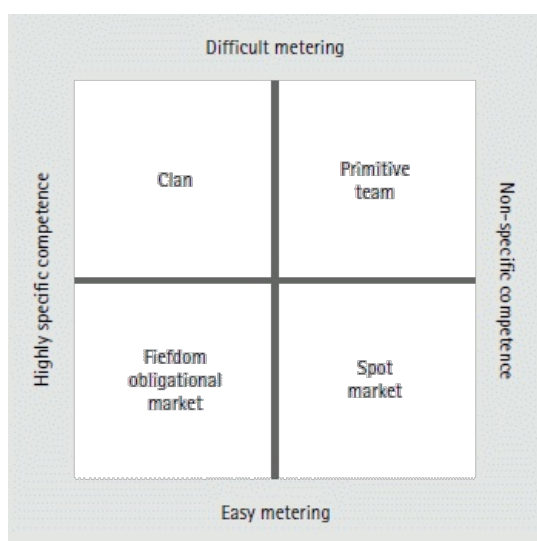


Fig. 5.2 The internal governance of the firm

These factors are summed up in Figure 5.2. Along the horizontal axis is the measure of the codification of the new knowledge that provides the basic design *inputs* to the value-adding process. Along the vertical axis we are asked to assess the ability of the entrepreneur or executive board to analyse, measure, and monitor the *outputs* from the process (normally products and user/customer needs). In the top left-hand quadrant the entrepreneur is uncertain on both scores and so should seek to develop a normative commitment to the project from both the employees involved and suppliers of what Teece (1986) describes as 'complementary assets'. This relationship is referred to as a 'clan' and, indeed, in the family business is literally based on traditional patriarchal or matriarchal loyalties. When operational knowledge is standardized but outcomes uncertain, relations should be trusting but held within a loose-linked team as in the relations illustrated in the top right quadrant. This is the situation when employing professional experts whose knowledge is encoded in esoteric jargons, not easily deciphered by the board, but important in providing the 'know what' long-term implications of fast-moving technologies for the field. Moving down the vertical axis represents a greater ability to monitor and predict outcomes from any innovation. In the bottom right quadrant are 'off-the-shelf' purchases of routinized services which can be bought on a spot price basis. However, as one moves to the left, the tacit 'know-how' of existing employees and suppliers becomes ever more important. But since out-comes are meterable and market relations are stable, hierarchical control is possible.

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However this control is likely to be most effective when employees and contractors are treated in an informally affective manner which encourages loyalty Hence the term 'fiefdom' is used to describe a traditionally normative commitment within prevailing corporate cultures.

This is, perhaps, a term that fits best with national cultures where a feudal sense of managerial stewardship has been retained, as in the Japanese workplaces described by Dore (1973, 1986) and others. In many ways the use of autonomous team working and *kaisan* in the

West can be seen as an attempt to generate this kind of complementary commitment among management and operative staff outside of the Japanese institutional context. What Williamson and other writers in the market-rational institutional tradition suggest is that this mode of 'high commitment' management is most likely to be effective only when executives *calculate* that employees and service suppliers possess 'know-how' critical to the long-term success of the firm; otherwise it is more efficient to buy their services on a spot market. Much earlier research by Sayles (1954) used very similar dimensions to those used in Figure 5.2 to describe shop-floor responses in Michigan auto plants to the status accorded by management to groups that fell within the four segments. This research, and more recent workplace studies over the last decades, have suggested that the creation of what Williamson describes as 'atmosphere' *within* the firm may be as much affected by attitudes generated in the external labour market as well as in the internal career market. For example, long after the financial crisis experienced by Japan in 1997, 'long-service men' made redundant by banks and other financial institutions were reported to be unemployable by other Japanese banks—because they were still regarded as part of another 'clan'. The transferability of skills in the West is quite clearly regarded as more feasible and, indeed, over the last two decades has even been symbolized by a growing acceptance of short-term contracts, with a similarly short-term expectation of high performance, for chief executives.

In spite of these differences in culture between market-based economies and those of state-orchestrated capitalism, a theme pursued later in the chapter, the notion of inter-firm collaboration in the face of extreme uncertainty and rapid change gained significance in the literature over the 1980s (Child and Faulkner 1998). In terms of NIE theory the most cost-effective way to lighten the transaction costs of opportunism was to *trust* one's customer, supplier, and, even, competitor. In game theoretic terms trust was seen to be usually achieved through repeated satisfactory transactions (Casson 1995). More embedded forms of trust are better described in the term 'clan' or *communal* trust familiar to social anthropologists, where ties of shared culture, and often ethnicity, afford the possibility of trade within the local area (Ward 1987). One does not have to 'look East' for this kind of trust. Many small businesses in the West are run on a 'word-of-mouth' basis and, indeed, the trade of ideas and their inventors within Silicon Valley can be seen to be based on a local *network* that has emerged over some three generations of radio and electronics

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engineering (Kaplan 1999) However, over the 1980s the term 'network' became ascribed to any form of strategic alliance or joint venture and, often, to supply, or value-adding, chain relationships. The interconnectedness of these relationships with all others held by participants served to produce guides to second or third order dependencies known by French planners as *filières* or webs. Underlying these various uses of the term 'network' in its strategic sense, there was a strong prescriptive message that distrustful relationships are costly in producing external diseconomies. By contrast cooperation could create economies and opportunities such as reducing the front-end risks of new ventures and expensive R&D, helping to overcome sectoral and national boundaries and, perhaps most important of all at the time, enhancing the quality of the final product.

5.5 Population approaches to Institutions

Generally the focus of the sociological New Institutionalism has been on fields that are seen to be populated with organizations. Its adherents are not so concerned as NIE theorists in what constitutes a firm or organizational hierarchy, only in the modes, styles, and strategies adopted by its collective membership within a given field. These are seen to converge over time as a result of isomorphism or institutionalized pressures to conform. As the evolutionary theorist, Howard Aldrych (2000: 269) argues, 'the major factors that organizations must take into account are other organizations'. This competition is seen by NI theorists to involve contests for political authority and legitimacy as well as economic fitness. Three major types of pressure to conform are seen to exist, each with its own antecedents: (1) *coercive* isomorphism stemming from the need to gain legitimacy and creditworthiness; (2) *mimetic* isomorphism resulting from the tendency of uncertain new entrants to adopt or to imitate prevailing organizational forms and collectively established rules; (3) *normative* isomorphism occurring when rules are mentally internalized and take on a moral value for the participant. DiMaggio and Powell (1983) associate this latter process almost exclusively with the socialization of professionals, particularly of professional managers. Coercion is defined broadly to take in a range of social and market pressures, but the role of the state and judiciary are emphasized in the work of the latter authors and many subsequent field studies. Mimetic pressures are emphasized more often in descriptions of the process of institutionalization through acceptance of daily routines and the subsequent adoption of habitual concurrence with rules. While these typologies greatly resemble Etzioni's (1961)

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taxonomy of the bases for commitment to hierarchical authority among organizational members, it omits his notion of a *calculative* concurrence with rules. In other words, calculatively opportunist new entrants to a field may adopt the rules for as long as it is profitable to do so, or for as long as it takes for them to change the rules. To admit this possibility is, of course, to provide scope for a strategic

agency beyond the assumptions of population theory.

The field in which these inter-firm processes take place is usually seen to resemble that of a market sector defined by products and professional inputs. Relations between organizations and the significance they hold for participants resemble those seen to be at work in strategic-sets (see McGee, Chapter 10). Much of Powell's empirical work has been done on emergent networks in information technology and, more recently, on biotechnology. DiMaggio and others have studied public institutions such as museums and colleges. However, fields are defined by DiMaggio and Powell (1983), somewhat tautologically perhaps, as emanating from increased interaction between organizations, by patterns of domination and coalition, by the extent of information passing, and the level of common awareness of common enterprise across organizations. Richard Scott (1995) has expanded the scope of such institutionalized boundaries to create a hierarchy of fields which can be seen to provide a more systemic view of their interrelationship within society at large. An adapted version of this hierarchy is illustrated in Figure 5.3. Reading across the table the bases (or pillars as Scott labels them) for isomorphism are set out as being: (1) through coercive regulation; (2) through the cognitive internalization of patterns of behaviour through imitation and repetition on the part of the strategic actors and, finally; (3) through the attribution of significant value to these activities as 'self-created' norms and established expectations. These separate bases could be taken to be stages in personal and collective learning behaviour, and are often taken as such in describing the process of institutionalization (see e.g. Tolbert and Zucker 1996; Suchman 2000).

Down the vertical axis, a hierarchy of organizational levels indicates possible institutionalized fields of actors. Within the firm or other organization, the employment contract and formal rules of the workplace provide a regulatory boundary. But it would be unusual for new entrants to shape their activities around their formal contracts for very long. Instead they learn to adopt habitual scripts with which to enact known work situations (see Johnson 1987). Again, it would be unusual for a long-staying employee to remain at this relatively shallow instrumental level of commitment. More usually some form of identity with the task, the work group, or with a wider 'community of practice' emerges (Dougherty 1992). As suggested above, this may or may not be more clearly articulated in an occupational form and, as such, contribute to an emergent identity with the wider sector or field. At the corporate level the concept of property and contract will present themselves early in the career of a would-be entrepreneur attempting to raise finance from banks or venture-capitalists, and again when he or she enters the equity market, and

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Bases for institutionalization				
		Regulative	Cognitive	Normative
Level of organization	Intra-firm	Employment contract protocols, procedures	'Constitutive' scripts	Communities of practice
	Corporate	Property relations governance structures	Frames and recipes	Corporate identity career
	Sector or field	Association network	Strategic set	Corporate reputation occupation
	Nation state	Licensor monopoly of violence	National institutions	Families, occupations, nationalism
	Global/regional	International agencies transnational corporation	Centre/periphery developmentalism	Emulative nationalism corporate citizenship

Fig. 5.3 Levels and stages of institutionalization

source: Adapted from Scott (1955).

at every stage between these two points in the life cycle. Success will involve the creation of administrative rules for the coordination and control of the enterprise and for communication and standardization across its various activities (Greiner 1972).

What seems clear from a number of studies is that the early years of an enterprise are marked by episodes in which decisions have

enormous significance, as do the style and manner in which they are made. Hence, the cognitive imprinting (another biological analogy!) remains important and becomes embedded in the cultural symbolic value attached to rules derived from these experiences (Stinchcombe 1965). Other stages of the life cycle provide important learning experiences, but the normative reference group or cognitive frame of significant others, the strategic set in McGee, Thomas, and Pruett's (1995) terms, tends to change only very slowly. The most quoted example of this is the manner in which Ford Motors, General Motors, Chrysler, and American Motors failed to give any significance to foreign imports to their domestic market until their Japanese rivals laid the footings of their first American plants. Spender (1989) sees this effect as extending to the way in

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which executives within the same set respond to exigencies with similar *recipes for action*. Johnson (1987) describes these recipes as embedded in deeper value-driven assumptions about the nature of the strategic environment. He uses Kuhn's (1962) notion of a *cognitive paradigm* to describe the model of the world commonly held by the executives of leading firms in the British menswear sector in the early 1980s. In both these latter studies the author was driven to discover why executives in firms or industries facing radical structural change were unable to identify the sources of their organization's inadequacy. In many such case studies normative attachment to the old rules of the game have been seen to provide a lock-in to failing strategies and cognitively bounded rationales.

But such structured responses are equally likely to reflect the position of the company on a previously highly successful trajectory. The biographies and public rhetoric of Jack Welch enunciate relatively simple axioms for his success—not all of which would be endorsed by academic prescriptions. GE's performance under his period as CEO seemed to rely a great deal on his ability to encourage an identity among employees with the success of the firm and with its reputation with stakeholders and analysts. This, plus relatively consistent performance, provided support for diversification beyond what might have been considered its core strengths. Nor is this experience confined to huge multinational organizations. The small British manufacturer of hand-built sports cars, Morgan Motor Company, founded in 1910, was visited in 1989 by the ex-CEO of the multinational chemical giant ICI, Sir John Harvey-Jones. The purpose of the visit was to film a popular television series in which Sir John offered advice to small businesses on improving their strategy and operations. His advice on this occasion was to abandon handcrafted body building and to adopt mechanically aided flow-line production. This would eliminate the two-year backlog in orders. Prices should also be increased to cover the premium that buyers could command on resale of their purchases. His advice was greeted with consternation by the father-son management who knew that both the retro-style hand-crafting and the existence of a queue for their products were essential ingredients of their product's reputation. To the former leader of a highly automated mass producer of chemicals and pharmaceuticals both appeared as signs of inefficiency. Ten years later on a filmed re-visit to the factory little had changed, save that a new model was about to be launched and orders for it covering the next two years had been received. The operations of the original ICI corporation had, meanwhile, been split up to provide value to the shareholders.

In all of these cases, the assumptions used by the CEO appear to have become internalized as a cognitive paradigm. Their learning had moved across Scott's pillars in the direction of normative belief. As Miller (1990) points out, executives in both large and small enterprises can be blinded by previous success—his so-called Icarus Paradox!

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5.6 Comparative Systems

Moving to the national and international bases for institutions in Figure 5.3 takes us to a new level of abstraction. In everyday business usage we refer to the law, to government, to banking, to education, to civil associations (mainly firms, professional associations, and labour unions) and, perhaps, to the significant but, normally, not salient military and religious institutions. Over the last three hundred years of nation building, emulative comparisons between developing economies have become usual. An early commentary on the role of British merchants in financing the state was provided by the banished Voltaire in 1733 (1964 edn). But the British economy was to become both the benchmark and threat for early developmental economists in the North American and German states from the early nineteenth-century onwards (Tribe 1995). By the end of the century, however, a Royal Commission on Labour (1894) found British employers lacking in their provision of training and R&D when compared with employers in both of the latter countries. Similar conclusions have been reached by successive studies of comparative productivity and the United Kingdom's relative economic decline over the following century (Lane 1989). After World War II a growing American concern for the role of 'human capital' in strategic development was reflected in the work of economists such as Becker (1964). This was accompanied by a new academic and public policy interest in the process of technological innovation, its diffusion, and in its institutional concomitants. Schumpeter's (1950) earlier analysis of technological evolution within capitalist institutions was especially important in providing a historical conceptual framework for researchers such as Freeman and Soete (1997), and Mowery (1989).

In the early 1980s the emergence of Japan, quickly followed by South Korea and Taiwan, as global players in the new markets for microelectronics provoked an immediate expansion in what had been a comparatively small and specialized field of academic study. It

also moved into a broader institutional consideration of national contextual characteristics that favoured or inhibited the creation or appropriation of new knowledge and its translation into innovative products. By the end of the 1980s these were taking a systemic form (Lundvall 1992; Nelson 1993) in what were described as comparative National Innovation Systems (NIS). In general these largely descriptive models continued to place emphasis on the role of government as midwife and orchestrator of new sector development or the assumption of this role by banks and venture capitalists. To the extent that governments of early developing nation states like Britain, the United States, and other 'Anglo-Saxon' countries have adopted an arm's length view towards the risks of technological development, leaving this to venture capital and the stock market, corporations in these countries reflect this stance in their own short-term view of investment in technological innovation and human capital. (The nature of the speculative bubble

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in dotcoms and telecommunications over 2000–2001 might seem to reinforce this view, even though confidence was afterwards restored in realistic levels of growth.) The dichotomy drawn in Johnson's (1982) pioneering study of the corporate workings of the Japanese *developmental state* and those of the United States' *regulatory state* continue to provide a shorthand for this debate. However, most of the recent work in this field stresses the improbability of technology transfer between different national institutional contexts without considerable 'hybridization' to incorporate differences in business recipes.

A somewhat separate debate around the possible tendency for modernizing states to converge on a single model way of doing business has also been pursued over an equally long period. It was particularly salient after World War II when American business methods were actively proselytized by the US government (Djelic 1998). It has re-emerged as part of the wider debate on globalization and is most clearly articulated in Fukuyama's (1992) dramatically, but somewhat prematurely, entitled *End of History and the Last Man*. Again, the rapid rise of the Pacific Asian economies has encouraged the notion that there is, in fact, wide strategic scope for achieving similar business goals in very different ways. Pioneering studies like those of Amsden (1989) and Hamilton and Biggart (1988) suggested that there were wide differences in the manner in which Pacific Asian national business systems had achieved their success. Whitley (1992) gave analytic form to the concept of *national business system* (NBS) with his categorization of the dimensions along which he described the institutions of Japan, South Korea, Taiwan, and Hong Kong. What he labels as background factors include pre-industrial political systems and their means of legitimation, traditional elites and their successors in the transition to industrial society. What are described as proximate or immediately shaping factors are the level of business dependency on a strong cohesive state, the level of state commitment to rapid industrial development and to risk bearing, the role of either bank credit or stock markets in the evaluation of corporate performance, whether there exist unitary or vocationally divided education systems, and whether unions and professions are occupationally or corporately based.

What seems common is the manner in which authoritarian governments played a major role in the early industrialization of the Pacific Asian regions and the way in which family networks acted as important intermediaries within and between firms. By comparison with Continental European and Anglo-Saxon nations, independent associations acting within an autonomous civil society are extremely weak. Nevertheless the complementarity and synchronicity within the national system stems from the level of normative integration between its proximal institutions. Fukuyama (1995) follows Whitley in the importance he attaches to the relationship between family ownership and the state in the development of intermediary institutions. Strong technocratic state elites, as in France and Korea, inspire strong patronal responses from early entrepreneurs. Weak or non-existent states force families back on informal networks like those of the overseas Chinese and other

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diaspora, Islamic family businesses, and, by implication, early British family firms. State co-optation through devolution of authority as in Germany and Japan—and, surprisingly, early stages of US development—creates a sense of national stewardship labelled by the author as *social capital*.

Much of the recent work of Whitley and colleagues in the NBS tradition has focused closer to the level of corporate strategy. In describing the organizational sets or fields of firms, Whitley (1999) presents six kinds of localized business systems. They are described in terms of the characteristics set out in Table 5.1. Hong Kong is seen as an example of the first of these, the Fragmented system. The craft or home-based Italian small businesses are described as Coordinated Industrial Districts, while Compartmentalized systems are 'islands of authoritative control and order amidst market disorder, as in the stereotypical Anglo-Saxon economy' (ibid. 99). State-Organized systems are typified by South Korean firms and Collaborative by the so-called Rhenish or German model. Japan's mode of 'alliance capitalism' is representative of the final category of Highly Coordinated systems. Whitley then attempts to match this typology of *parenting* systems with that of countries which play *host* to the MNC in an interesting addendum to the Bartlett and Ghoshal (1989) 'think global, act local' approach. Other contributions such as Kristensen and Zeitlin (2001) stress the manner in which these parent-subsidiary differences in

business recipes are translated into the internal governance structures of the MNC. Morgan (2001) directs attention to the opening of a transnational space occupied by new cross-national agencies and by specialized traffic between MNCs. Within this space new 'private oversight agencies' such as the Big Five accountancy firms develop multifunctional roles in servicing both nation states and MNCs.

Within this emergent structure of global institutions, local regions and cities are seen to provide important nodes on international networks. What Whitley refers to as the coordinated industrial district has been the focus of much research since the publication of Piore and Sabel's (1984) *Second Industrial Divide*. These authors suggested that an alternative source of competitive advantage to that possessed by the MNC was provided by clusters of small enterprises within certain regions of Europe. These were seen to possess a complementarity of processes and capabilities in the manner identified by Alfred Marshall at the beginning of the nineteenth century. They also possessed the capability of swift adaptation to customer demand because of their loosely linked contractual basis and an underlying cohesiveness stemming from shared values and long-standing institutions. (In the Emilia-Romagna region of Italy the Catholic Church collaborated with local Communist politicians in establishing professional cooperative marketing agencies in the 1970s.) The strategic model of the *industrial district* was one adopted by a number of public agencies including the state of Massachusetts and the European Commission. It has so far had only mixed success, partly because sponsoring governments have tended to settle for low-skilled inward investment by MNCs and, coupled with

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Table 5.1 Institutional features associated with different types of business system

Institutional features	Types of business system					
	Fragmented	Coordinated industrial district	Compartmentalized	State organized	Collaborative	Highly coordinated
The state						
Strength of state's coordinating and developmental role	Low	Considerable locally, limited nationally	Low	High	Considerable	High
Strength and incorporation of intermediaries	Low	Considerable locally	Low	Low	High	High
Strength of market regulation	Low	Considerable locally	Low	High	High	High
Financial system						
Capital market or credit-based	Low risk-sharing by banks	Some local bank risk-sharing	Capital market	Credit	Credit	Credit
Skill development and control						
Strength of public training system	Low	High	Low	Limited	High	Limited
Union strength	Low	High	Low to some	Low	High	Some
Dominant organizing principle of unions	Varies	Skill/sector	Skill	Employer	Sector	Employer
Centralization of bargaining	Low	Low	Low	Low	High	Low
Trust and authority						
Trust in formal institutions	Low	Some	High	Limited	High	Some
Paternalist authority	Some	Variable	Low	High	Low	High
Communitarian authority	Low	Limited	Low	Low	High	Some
Contractarian authority	Limited	Variable	High	Low	Low	Low
Typical business environment	Particularistic	Locally collaborative	Arm' length	Dirigiste	Collaborative	State-guided

Source: Whitley 1999: 60.

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this, their failure to induce a valued capability unique to the region (Crouch et al. 2001). Best (2001) describes success or failure in terms of *cluster dynamics*. These include both regional capabilities (MIT and most of the other Ivy League universities in the case of New England) and also the ability to establish innovation networks between what March (1999) called the *exploratory* functions of local organizations and their *exploitative* functions (see also Swan, Prevezer, and Stout 1998). A contributory factor now regarded as significant by the World Bank and other development agencies is the creation of social capital or the prevalence of trust between collaborative parties transmitted through such socially embedded institutions (Woolcock 1998).

5.7 The Life Cycle Metaphor and its Institutional Concomitants

The usually accepted assumptions underlying the analysis of institutionalization lend themselves to illustration in the ubiquitous form of the S-curve or life cycle metaphor. That is to say that the process is seen to be evolutionary, cumulative, path-dependent, levelling off at given level of established practice and, possibly, entering a period of decline. Most analysts modify such models with periods of *punctuated equilibrium* when elements in complex systems which have up until then co-evolved in a complementary way change in pace or direction. For example, when disruptive events bring internal conflicts to the surface (Cooper et al. 1996) or when exogenous factors like new substitute products or processes invade mature sectoral markets or even where, as in the case of Johnson's (1987) menswear firms, executives had simply allowed *strategic drift* from the direction taken by changes in consumer tastes.

One of the better known examples of the use of this form of punctuated life cycle is that of Greiner's (1972) explanation of the emerging formalization and specialization of management control structures in response to internal and external pressures on existing systems (Figure 5.4). Child and Francis (1976) see this as taking the form of a reiterated trimming movement between cycles of devolution and centralization in administrative control. We might, perhaps, see the new electronically networked organization as allowing a resolution to the problem through the close remote monitoring of devolved operational authority. But, Whittington and Mayer's (2000) recent study of the diffusion of the M-form across European corporations reminds us of the continued importance of the process of mimetic isomorphism in the adoption of new forms across strategic sets.

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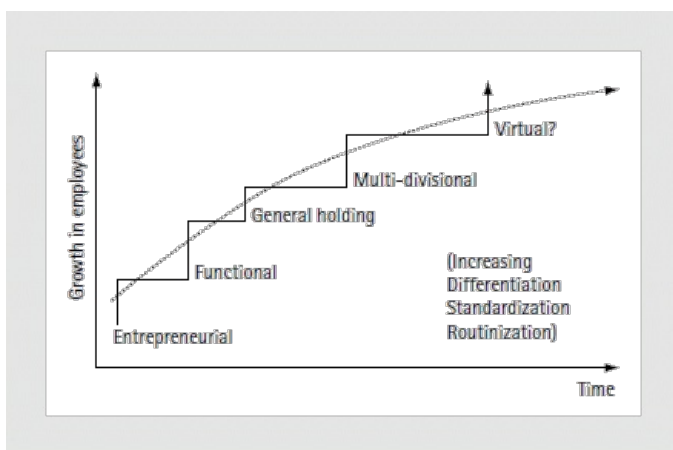


Fig. 5.4 Organizational growth curve and control/coordination

Source: See Greiner (1972).

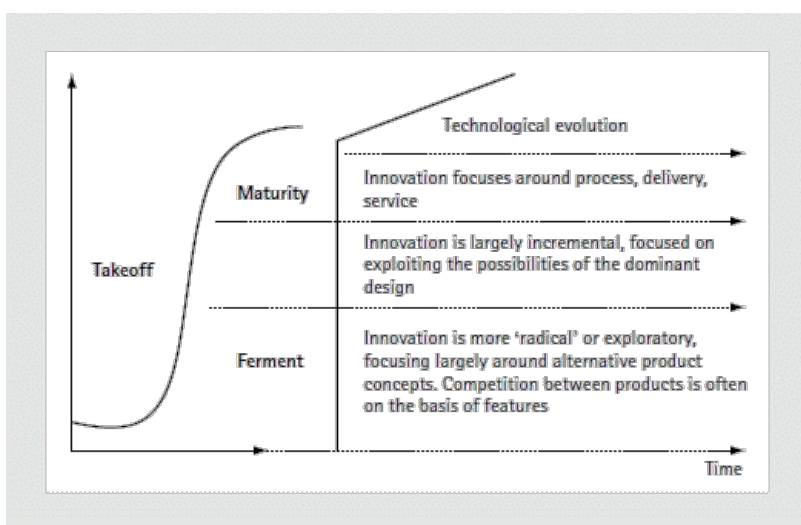


Fig. 5.5 The sectoral evolution of technological activity over the life cycle of the sector

Sectoral life cycles are often seen in terms of the development of either product markets or the diffusion of process/product best practice (see Figure 5.5 as an example). Institutionally, trade and employer associations can be seen to emerge from a growing realization of

collective interest among firms, either in regard to

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labour or other suppliers of services, or customers, or the government or all four groups of stakeholders (Shearman and Burrell 1988; Streeck and Schmitter 1985). Often these formations are preceded by those of trade unions and/or aspirant professional bodies whose membership 'properties' lie in their transferable skills rather than in fixed capital. As suggested above, the distinctive patterns of national business systems have provided varied modes of *recognizing and sponsoring* new institutions. These are taken to be a critical distinction between early industrializing nations with common law traditions, such as Britain and North America, and later developing Continental nations with political-judicial systems embedded in Roman law. In the first, sectoral associations emerged as market-based movements and only received limited and somewhat reluctant recognition from other parties and from the state. In the later developing states there was, often, a much readier sponsorship accorded to approved associations who were thereafter co-opted, either as agencies of the state, or, in the case of labour unions, brought into the corporate structure of the sector or firm (Loveridge 1983). Thus, what is seen as the more tightly socially integrated systems of later developing national business systems has much to do with the management of the process of institutionalization. This is seen to provide status and authority for intermediary sectoral associations at an early stage of their formation and, later, within the overall administration of the state. In Germany, for instance, membership of certified trade and employer (training) associations is necessary for an enterprise to gain admission to many established marketplaces. Occupations are similarly certified on the basis of training curricula common across *Länder*.

One of the most prevalent bases for the creation of new sectors is, of course, the introduction of some form of novel generic technology which changes the institutional architecture of many prevailing sector boundaries. According to the notion of long waves of capital accumulation occurring over the history of industrialization, we might see innovation as a series of S-curves representing major changes, first in sources of energy, and, later, in the manner of the 'second industrial divide', in modes of information technology (Kondratiev 1925; Schumpeter 1950; Freeman and Soete 1997) But Abernathy, Clark, and Kantow (1983) and Tushman and Anderson (1980) see firms in sector populations as moving through cycles of disruptions of varying magnitudes (see Figure 5.6). Architectural crises involve the obsolescence of both existing competences and the networks of suppliers and customers that give them value. Revolutionary change provides opportunities to utilize new skills along existing networks, while a matching of competences with networks provides the basis for steady growth. The search for niche markets usually represents the beginning or end of the cycle when competences can be used to create the basis for longer-term alliances across newly developing spin-offs from the initial technological trajectory (Yoffie 1997) Again, the role of institutions, and more particularly, the state and the financial system can be critical at these times of transition. In a far-reaching analysis of past cycles in sectoral growth, Spar (2001)

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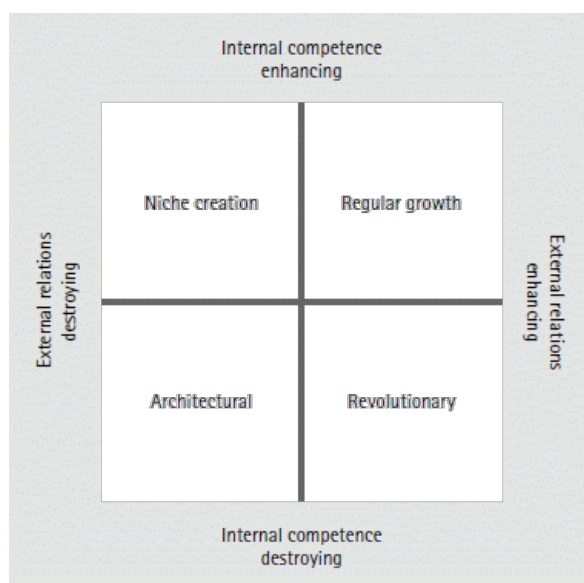


Fig. 5.6 Environmental pressures on sector development

Source: Adapted from Abernathy et al. (1983).

suggests that in periods of sustained architectural change the corporate players have, historically, welcomed state intervention in regulation against 'pirates' and in the setting of standards for the sector. Her analysis is largely confined to the communications sector—but extends back to the exploration and exploitation of the New World in the fifteenth century She suggests that the need for order drives the players to demand rules for the game in much the way of Hobbes's seventeenth-century *Leviathan*.

5.8 Discontinuous change, de-institutionalization, and learning

One characteristic of institutions is that the rules or norms within most areas of socio-economic exchange *can* acquire a moral value or significance for the self-identity of players over time and through habituated practice. Changes in the external structure of rules can, therefore, lead to a second query following closely upon the first question asked earlier. 'How are the rules legitimated?' In other

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words, what sanctions ensure a collective adherence to these rules within the field of activity or marketplace that the entrepreneur wishes to enter? For the transformative strategist it may even seem necessary to bring about radical changes in the institutionalized boundaries and game, provoking a costly confrontational response on the part of those losing a valued source of identity or shared interest in the game. On the other hand, where rule changes occur frequently but in an apparently arbitrary fashion, the commitment of players is likely to be guarded and instrumental; that is, confined to exacting short-term gains within prevailing conditions. By contrast, where the value of rules is perceived to be of *mutual* benefit to the aims of the strategist and to those sharing a field of interrelated activities, we can speak of gain in terms of *social capital*; that is capital that, metaphorically speaking, is a shared *social property* or space (Fukuyama 1995) A familiar explanation for the difference in approach between Anglo-American executives and those in successful later developing countries is the level of importance attached to a dialogical approach to institutional change. This can complement and reinforce a greater congruency in shared values and commitment to mission statements. It is also seen to bring about greater speed and flexibility in the implementation of strategy (Child and Loveridge 1990).

For the market-rational approach to the change process, the problem of management is largely confined to choice of form in contractual governance. The choice that is offered is, fundamentally, that between the absorption of uncertainty within a hierarchical form of governance or its spinning-off in some form of market-based partnership or, eventually, buying the risk-bearing service or commodity in the spot market. Child (1987) adopts a transaction cost framework in setting out a range of organizing modes appropriate for the absorption of the risk in change situations involving varying levels of codification and diffusion of strategic information. The space between the two axes of Figure 5.7 has been dubbed *cultural space* by its originator, Max Boisot (1986), to indicate the importance of social community in setting boundaries to the formalization and spread of knowledge. Thus, the position at the axis of the two dimensions occupied by the unitary firm in Figure 5.7 is similar to that occupied by the employee or contractor in the bligational market portrayed in Figure 5.2. Movement away from this position is movement away from the firm's reliance on locally held knowledge in a tacit form. As Nonaka and Takeuchi (1995) demonstrate, this involves a complex process of social translation (see also Child, Chapter 15).

However, in general, institutional approaches share some common characteristics. The first is that change is seen as a *path-dependent* process, evolutionary and incremental in its construction of new rules and new knowledge. Sources of radical structural change in the rules of business are usually seen to derive from exogenous forces such as those described above—technological, global, *et cetera*. Institutionalized frames often have difficulty in encompassing cusps or discontinuities in ongoing field or sector trajectories with ease. The second characteristic is that

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Organizing mode	Control and coordination	Common examples
Integrated hierarchy	direct authority relations	single-product firm
semi-hierarchy	arm's length control and periodic review	multi-divisional firm; holding company
co-contracting	arm's length control but the organization also mediates between co-contractors	mutual organization; joint ventures
coordinated contracting	use of agreed specifications and deadlines; long-standing trust relations	contractors and subcontractors
coordinated revenue links	formal financial agreements; monitoring of service standards with franchising	licensing, franchising
spot network	limited to the terms of the contract	market transacting between independent traders

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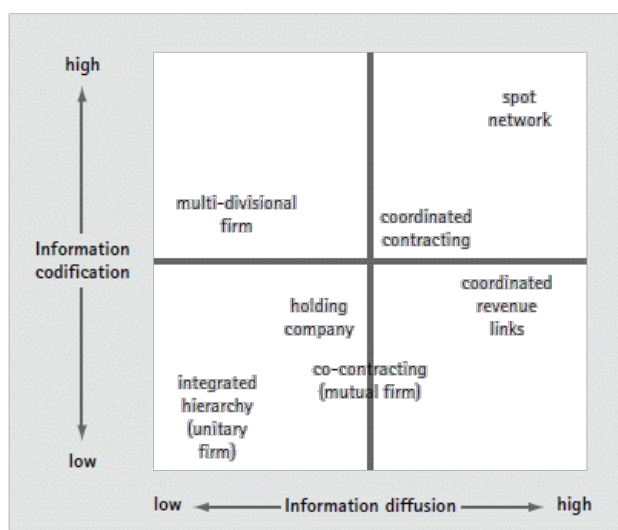


Fig. 5.7 Modes of organizing transactions in response to information uncertainty

Source: Adapted from Child (1987)

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institutional forms are emphasized over their underlying ideational and cultural foundations. This is not because the latter are not present within the analysis. Indeed the constitutive and regulative functions of institutions are usually predicated on the basis of an emergent consensus underlying ongoing commitments to the rules of the field or system, rather than on a narrow instrumentally contingent or utilitarian concurrence by the players. Radical or transformative changes in the rules are therefore usually seen as involving profound shifts in actor attitudes and orientations at the cognitive and, even, at the level of personal values. Nevertheless the cultural and ideational underpinning of institutions are not well explored.

The reason lies in the contingent nature of commitment within the institutional model. Rules *can* be obeyed on a largely interim or calculative basis, or what Unger (1987) describes as a *taken for granted* set of routines. These might have been applied in a coercive manner in the first instance, but are now habituated and routinized within the complex of routines that provide system and order to the world of the actor. As a consequence the institutions themselves may be seen as holding a provisional form. Hinings and Greenwood (1988) see this form as representing *shared archetypes* which in some ways equate with other terms used to describe the cognitive frames used by strategists such as strategic recipes and paradigms but is much more provisional in nature. In itself this provisional

acceptance of institutions leaves more scope for strategic choice, but in the process, lessens the analytical power of their structural or determinant effects. It seems clear from the well-known study of the American tobacco industry by Miles and Snow (1978) and the slightly more recent work of Goold and Campbell (1987) that firms, like nations, can adopt widely different styles and modes of governance to achieve the same objective. It becomes somewhat tautological to suggest that the set or population to which these firms belonged was under-institutionalized. Or, if the boundaries between the firm, the sector, and the national system indicates a varied strength of identity, synchronicity, and complementary of purpose, in the manner mapped by Whitley, can the strategist be sure that this complex terrain will remain static?

An alternative approach to institutions is suggested by the 'cultural turn' introduced in the 1980s by gurus such as Peters and Waterman (1982), as well as critical theorists such as Knights and Willmot (1982). Such a concern for the symbolic maintenance of rules in everyday life, again, assumes that these are external signs of an inward commitment of a moral or normative nature. As Argyris and Schon (1978) suggest *expounded ideologies* are often a poor guide to *ideologies in use*. But clearly the ideational basis for institutionalized conformity is of some significance in predicting the likely permanence and efficacy of particular business systems. It seems extremely difficult to explain the level of social cohesion within either firms or nation states without reference to the strength of a shared identity and collective ideology. While institutionalists tend to see this as a conservative force, aspirational, future-oriented ideologies among influential groups can be seen to drive change within such communities (Urry 1973; Loveridge 1997) Necessarily, these are more

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efficacious when rooted in an already existent identity within a community, such as common ethnicity or sector, or region or occupation, but the availability of external normative referents or benchmarks, such as the American or Japanese way of management, can also indicate the likely development of aspirations within a given system or population (Lodge and Vogel 1987). Paradigmatic change is seen by the originator of the term, Kuhn (1962), as involving a long period of tension between valued assumptions and new, but incommensurable, solutions to strategic problems. As Johnson (1987) suggests, this can require the recruitment of new strategic executives but consistency and clarity of purpose are usually required to demonstrate the greater explanatory value of the new paradigm in confronting institutionalized problems.

5.9 Discussion

The revival of institutionalism in the 1980s was very much of its time and place. Dissatisfaction with prescriptive strategic recipes, which assumed an unhindered scope to shape the firm's environment, and with crudely positivistic statistical modelling, stimulated a search for more qualitative explanatory approaches. At the same time the need for a structuralist explanation for management problems was particularly important in offering revelatory diagnosis followed by design prescription. There was, therefore, a reluctance to accept the emergent phenomenological critique contained in cultural criticism and ethnography as useful in prescriptive teaching and writing. But, there was also a realization that the social construction of the strategic environment had to be acknowledged through acceptance of the structured nature of business transactions. Institutionalism also offered a degree of certitude to clients faced with a rapidly changing environment and provided a basis for comparison in assessing national capabilities in a globalizing marketplace. The transaction cost framework was particularly adaptable in offering explanation, first, for the large divisionalized bureaucracies of the 1970s and then for the emergence of networking in the 1980s. In the introduction of 'internal markets' within the public sector, it provided new public sector management with a legitimating rhetoric that could be applied to anything from the pricing of bed pans to the treatment of ligatures. Nevertheless, like much management theory, the conceptual frames often originated, not in business schools, but in departments of sociology and economics.

The intellectual origins of new institutionalism, in both sociological and economic guises, goes some way to explain why strategic agents and ideals tend to be demoted to footnotes. Systems and structures dominate explanation of strategic

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problems with little regard for the origins of the latter or likely sources of endogenous change or transition from one systems state to another, other than through incremental and evolutionary progression. This has, at times, tended to lead to a rather optimistic functionalism in the interpretation of phenomena such as inter-firm networking and the development of collateral trust between parties (e.g. Powell 1990). Indeed, in the development of the transaction cost economics frame, Williamson (1982) appears to bring in 'trust' as a least cost strategic option by the simple expedient of eliminating one of his prior conditions for the working of his conceptual model, that of opportunistic trading! There is also a danger of such tautological and, even, teleological, assumptions underlying attempts to measure the performance of institutionalized national systems in a manner that suggests that they have 'evolved' to their present functions through

some culturally disposed actor orientation. While most new institutionalist writers would probably reject such a comparison, a return to the debate around the 'social action' systems theory of Talcott Parsons might add depth to the continued development of NI theory (see Black 1961).

In the description of institutionalist approaches offered in this chapter I have placed an untypical emphasis on organizational learning during periods of contextual transition and upon the role of strategic agents. As Tolbert and Zucker (1996) assert, NI theory places little emphasis on such dynamic processes of institutionalization and the circumstances of re-institutionalization over a given time period. Time is, seemingly, central to institutionalized learning, yet little if anything is said about the longitudinal and historical preconditions of institutions. I have also attempted to indicate that, as Cooper et al. (1996) suggest, institutionalized boundaries can represent a form of surface tension between competing ideals within a community. This can be most evident in multi-ethnic populations of nation states or, even, in racial diversity within work organizations. But, equally, it is typical of many executive boards where day-to-day compromises around the implementation of a formal strategy are worked out in ways that lead to 'strategic drift' within the corporation. The ideational basis upon which structures come into being and can be changed are generally neglected beyond the three-part taxonomy of control/commitment outlined by DiMaggio and Powell (1983), illustrated here in Scott's interpretation in Figure 5.3 Even where NI theorists attempt to explain the origins of institutions, they tend to advance models of 'bottom up' evolution from the collective habituation of actors (Tolbert and Zucker 1996; Suchman 2000). In some ways this may reflect an ethnocentric bias in the orientation of these American scholars. There is an interesting contrast to be made between these perspectives and those of French social philosophers such as Foucault (1977) where the 'top down' hegemony of the state is seen to be represented in the normative self-regulation of its citizens.

In general NI and NBS theorists tend to emphasize reciprocity in power relations within their ideal types. Williamson (1975) specifically rejects the use of the term

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'power' to describe the information asymmetries that provide the basis for his TC construct. We know that, especially in the new economy, information asymmetries between traders can, sometimes, give a lot more leverage than actual ownership of legally defined assets. Furthermore, one's place on an inter-corporate network may be more valuable than temporary access to equity. But, we know also that fragmented ownership allows executive management to exercise considerable autonomous power, so that governance structures can often shape the way ownership rights can be articulated towards a bias in management's favour (Berle and Means 1932). This is not to dismiss regulatory authority in defining and maintaining, how-ever remotely, the rights of custodians of property and redress against its violators. But little emphasis is placed upon the mobilization of power and the use of symbolic referents in the constructions of legitimating ideologies by strategist elites either within the corporation or the state (Clegg 1989). In this sense Child's recent (2000) essay on what he calls 'high context' theories of comparative management provides a more satisfactory role for the ideational as well as material and institutional underpinnings of business systems.

Finally, the reasons for the boundary placed between exogenous and endogenous explanatory factors in institutional analysis is not always clear. Within an institutional framework one supposes that 'exogenous' factors are simply those not perceived as looming above the strategic horizon for reasons of a lack of intellectual comprehension or a shared perceptual myopia within the corporate community. Both are possible and, according to journalistic commentary on the departure of CEOs, seem to occur quite frequently. Yet there is little attempt in institutional accounts to elaborate on why this should be so in a systemic way. For this reason I have placed some emphasis in this account on the processual explanation provided by the notion of the co-evolution of strategic contexts (Van de Ven, Anglett, and Scott-Poole 1989). This appears to provide for a possible complementarity in the views held by strategic decision-makers on the emergence of perceived contingencies within their cognitive schema and recipe for action.

5.10 Conclusion

A major part of the analysis and explanation offered by the institutional approach to strategic management concerns the manner in which distinctive strategic recipes are formulated within particular institutional environments. These recipes are ways of coordinating and controlling business enterprises which have been reinforced by successful performance within those contexts. For the market-rational theorists

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these are choices made with a view to minimizing costs whilst seeking an orderly and predictable environment. In sociological approaches a wider range of socio-political pressures are brought to bear in enforcing the 'rules of the game', but the need for order is paramount in enabling the game to be played at all. Once in place, the embeddedness of institutionalized patterns of behaviour within complex inter-dependent systems, and within populations of organizations sharing the same field or marketplace, tends to ensure continuity and a recursiveness in approach to similarly defined strategic problems.

Selznick (1957) suggests 'Institutionalization is a process. It is something that happens to an organization over time, reflecting the organization's own distinctive history, the people who have been in it, the groups it embodies and the vested interests they have created, and the way it has adapted to its environment' (ibid.16–17). There is clearly a danger that the importance of the institutional environment can be exaggerated in our analysis of strategy. Many successful corporate entrepreneurs have been revolutionaries and, at national level, vice versa. The strategist as agent is an actor in an ongoing situation, often, with the latent ability to generate power in changing existing boundaries to institutionalized fields or markets. Equally, constraints of efficiency in the generation of economies of scale and scope cannot—however socially constructed—be regarded as insignificant in explaining the success of many of today's hi-tech manufacturers as well as the more mature 'blue-chips'. Institutional factors obviously play an important role in directly and indirectly shaping the creation and development of organizational styles and modes within their fields. But in establishing processual patterns of institutionalization the direction of causality is often reflexive and not amenable to modelling and prescription at an abstract, textbook, level. Its principal strength can be seen in alerting the decision-maker to the existence of current institutionalized expectations and to the probability of generating new ones. Through according legitimacy to current activities, whether being subject or object of rules, the actor is contributing to the so-called 'iron cage' that precludes certain future choices.

References

Abernathy, W. I., Clark, K. B., and Kantow, A. M. (1983). *Industrial Renaissance*. New York: Basic Books.

Alchian, A., and Demsetz, H. (1972). 'Production, Information Cost, and Economic Organization.' *American Economic Review*, 62: 777–95.

Aldrych, H. (2000). *Organizations Evolving*. London: Sage.

Amsden, A. H. (1989). *Asia's Next Giant*. New York: Oxford University Press.

Argyris, C., and Schon, D. A. (1978). *Organizational Learning*. Reading, Mass.: Addison-Wesley.

end p.132

Augur, P. (2000). *The Death of Gentlemanly Capitalism*. London: Penguin.

Bartlett, C. A., and Ghoshal, S. (1989). *Managing across Borders*. Boston: Harvard Business School Press.

Becker, G. S. (1964). *Human Capital*. New York: National Bureau of Economic Research.

Berle, A., and Means, G. (1932). *The Modern Corporation and Private Property*. New York: Macmillan.

Best, M. H. (2001). *The New Competitive Advantage*. Oxford: Oxford University Press. [Link to OSO X-Reference](#)

Black, M. (ed.) (1961). *The Social Theories of Talcott Parsons*. Englewood Cliffs, NJ: Prentice-Hall.

Boisot, M. (1986). 'Markets and Hierarchies in a Cultural Perspective'. *Organization Studies*, 7: 135–58. [Link](#)

Buckley, P., and Casson, M. (1976). *The Future of the Multinational Enterprise*. London: Macmillan.

Casson, M. (1995). *Entrepreneurship and Business Culture*. Aldershot: Edgar Elgar.

Chandler, A. D., Jr. (1977). *The Visible Hand: The Managerial Revolution in American Business*. Cambridge, Mass.: Belknap Press.

— (1990). *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, Mass.: Belknap Press.

Child, J. (1972). 'Organizational Structure, Environment and Performance: The Role of Strategic Choice'. *Sociology* 6: 1–22. [Link](#)

— (1987). 'Information Technology, Organization and the Response to Strategic Challenges'. *California Management Review*, 30: 33–50.

— (2000). 'Theorizing about Organization Cross-Nationally'. *Advances in International Comparative Management*. Greenwich, Conn.: JAI Press, 13: 27–75.

— and Faulkner, D. O. (1998). *Strategies of Co-operation*. Oxford: Oxford University Press.

— and Francis, A. (1976). 'Strategy Formulation as a Structured Process'. *International Studies of Management and Organization*, Summer: 167–98.

— and Loveridge, R. (1990). *Information Technology in European Services*. Oxford: Blackwell.

Clegg, S. (1989). *Frameworks of Power*. London: Sage.

Coase, R. H. (1937). 'The Nature of the Firm'. *Economica*, ns 4: 386–405. [Link](#)

Cohen, M. D., March J. G., and OLSEN J. P. (1972). 'A Garbage Can Model of Organizational Choice'. *Administrative Science Quarterly*, 17/1: 1–13. [Link](#)

Commons, J. R. (1900; 1967 edn). *A Sociological View of Sovereignty*. New York: Augustus M. Kelley.

Cooper, D. J., Hinings, C. R., Greenwood, R., and Brown, J. L. (1996). 'Sedimentation and Transformation in Organizational Change: The Case of Canadian Law Firms'. *Organization Studies*, 17/4: 623–47. [Link](#)

Crouch, C, Le Gales, P., Trigilia, C., Voelzkow, H. (2001). *Local Production Systems in Europe: Rise or Demise?* Oxford: Oxford University Press.

DiMaggio, P. J., and Powell, W. W. (1983). 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields'. *American Sociological Review*, 48:147–60. [Link](#)

Djelic, M.-L. (1998). *Exporting the American Model*. Oxford: Oxford University Press.

Dore, R. (1973). *British Factory—Japanese Factory*. London: Allen and Unwin.

— (1986). *Flexible Rigidities*. Stanford, Calif: Stanford University Press.

end p.133

5 Institutional Approaches to Business Strategy

Dougherty, D. (1992). 'Interpretative Barriers to Successful Product Innovation in Large Firms'. *Organization Science*, 3: 179–202. [Link](#)

Egeberg, M., and Laegreid, P. (eds.) (1999). *Organizing Political Institutions*. Oslo: Scandinavian Universities Press.

Emery, F. (1967). 'The Next Thirty Years'. *Human Relations*, 20: 199–237. [Link](#)

Etzioni, A. (1961). *A Comparative Analysis of Complex Organizations*. Glencoe, Ill: Free Press.

Fligstein, N. (1990). *The Transformation of Corporate Control*. Cambridge, Mass.: Harvard University Press.

Foucault, M. (1977). *Discipline and Punishment*, trans. A. Sheridan. London: Allen Lane.

Freeman, C, and Soete, L. (1997). *The Economics of Industrial Innovation* (3rd edn). London: Pinter.

Friedland, R., and Alford, R. R. (1991). 'Bringing Society Back In: Symbols, Practices and Institutional Contradictions', in P. J. DiMaggio and W. W. Powell (eds.), *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press, 232–66.

Fukuyama, F. (1992). *The End of History and the Last Man*. New York: Free Press.

— (1995). *Trust*. London: Hamish Hamilton.

Goold, M., and Campbell, A. (1987). *Strategies and Styles*. Oxford: Blackwell.

Greiner, L. E. (1972). 'Evolution and Revolution as Organizations Grow'. *Harvard Business Review*, 50/4: 37–46.

Hamilton, G., and Biggart, N. W. (1988). 'Market, Culture and Authority'. *American Journal of Sociology*, 94/Supplement: 552–94.

Hedlund, G. (1986). 'The Hypermodern MNC—A Heterarchy?'. *Human Resource Management*, 25/1: 9–35. [Link](#)

Hinings, C. R., and Greenwood, R. (1988). *The Dynamics of Strategic Change*. Oxford: Blackwell.

Hirst, P., and Thompson, G. (1996). *Globalization in Question*. Cambridge: Polity.

Hollingsworth, J. R., Schmitter, P. C., and Streeck, W. (1994). *Governing Capitalist Economies*. New York: Oxford University Press.

Huff, A. S. (1982). 'Industry Influences on Strategy Formulation'. *Strategic Management Journal*, 3: 119–30. [Link](#)

Johnson, C. (1982). *MITI and the Japanese Miracle*. Stanford, Calif: Stanford University Press.

Johnson, G. (1987). *Strategic Change and the Management Process*. Oxford: Oxford University Press.

Kaplan, D. A. (1999). *The Silicon Boys and their Valley of Dreams*. New York: Harper & Row.

Kaplan, R. S., and NORTON, D. P. (1996). *The Balanced Scorecard*. Boston: Harvard Business School Press.

Karpik, L. (1972). 'Les Politiques et les logiques d'action de la grande entreprise industrielle'. *Sociologie du travail*, 1: 82–105.

Kay, J. (1993). *Foundations of Corporate Success*. Oxford: Oxford University Press.

Knights, D., and Willmot, H. (1982). 'Power, Value and Relations'. *Sociology*, 16/4: 578–85. [Link](#)

Kogut, B., and Zander, U. (1993). 'Knowledge of the Firm, Combinative Capabilities and the Evolutionary Theory of the Multinational Corporation'. *Journal of International Business Studies*, 4: 625–45. [Link](#)

Kondratiev, N. (1925). 'The Major Economic Cycles'. *Vosprosy Konjunktury*, 1: 28–79. Trans, in *Lloyds Bank Review*, 129 (1978).

end p.134

Kristensen, P. H., and Zeitlin, J. (2001). 'The Making of the Global Firm', in G. Morgan, P. H. Kristensen, and R. Whitley (eds.), *The Multinational Firm*. Oxford: Oxford University Press, 220–52.

Kuhn, T. S. (1962). *The Structure of Scientific Revolution*. Chicago: University of Chicago Press.

Lane, C. (1989). *Management and Labour in Europe*. Aldershot: Edward Elgar.

Lindblom, C. E. (1959). 'The "Science" of Muddling Through'. *Public Administrative Review*, 19: 79–88. [Link](#)

Lockwood, D. (1964). 'Social Integration and System Integration', in G. K. Zollschan and H. W. Hirsch (eds.), *Explorations in Social Change*. Boston: Houghton Mifflin.

Lodge, G. C., and Vogel, E. F. (1987). *Ideology and National Competitiveness*. Boston: Harvard Business School Press.

Loveridge, R. (1983). 'Sources of Diversity in Internal Labour Markets'. *Sociology*, 17/1: 44–64. [Link](#)

— (1990). 'Incremental Innovation and Appropriative Learning Styles in Direct Services', in R. Loveridge and M. Pitt (eds.), *The Strategic Management of Technological Management*. Chichester: John Wiley, 339–68.

— (1997) 'Putting Nationalism back into National Business Systems', in A. Bugra and B. Usdiken (eds.), *State, Market and Organization*. Berlin: de Gruyter.

— and Mok, A. (1979). *Theories of Labour Market Segmentation*. Leiden: Nijhoff.

Lundvall, B.-A. (ed.) (1992). *National Systems of Innovation*. New York: St Martin's Press.

McGee, J., Thomas, H., and Pruett, M. (1995). 'Strategic Groups and the Analysis of Market Structure and Industrial Dynamics'. *British Journal of Management*, 6: 257–70. [Link](#)

March, J. G. (1999). *The Pursuit of Organizational Intelligence*. Oxford: Blackwell.

— and Simon, H. (1958). *Organizations*. New York: Wiley.

Marx, K., and Engels, F. (1888; 1948 edn). *Communist Manifesto*. London: Communist Party.

Mayer, C. (1999). 'Firm Control', *Inaugural Lecture as Peter Moore's Professor of Management Studies*, Examination Schools, University of Oxford, 18 Feb.

Miles, R. E., and Snow, C. C. (1978). *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.

Miller, D. (1990). *The Icarus Paradox*. New York: Harper.

Mintzberg, H. (1973). *The Nature of Managerial Work*. New York: Harper & Row.

— and Waters, J. A. (1985). 'Of Strategies, Deliberate and Emergent'. *Strategic Management Journal*, July-Sept.: 257–72.

Morgan, G. (2001). 'The Development of Transnational Standards and Regulations and their Impact on Firms', in G. Morgan, P.-H. Kristensen, and R. Whitley (eds.), *The Multinational Firm*. Oxford: Oxford University Press, 220–52.

Mowery, D. C. (1989). *Technology and the Pursuit of Economic Growth*. New York: Cambridge University Press.


Nelson, R. R. (ed.) (1993). *National Innovation Systems*. New York: Oxford University Press.

— and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Belknap Press.

Nonaka, I., and Takeuchi, H. (1995). *The Knowledge-Creating Company*. Oxford: Oxford University Press.

end p.135

North, D. C. (1981). *Structure and Change in Economic History*. New York: W. W. Norton.

Ouchi, W. G. (1980). 'Markets, Hierarchies and Clans'. *Administrative Science Quarterly*, 25: 129–41. 

Penrose, E. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.

Perrow, C. (1970). *Organizational Analysis: A Sociological View*. London: Tavistock.

Peters, T. J., and Waterman, R. H. (1982). *In Search of Excellence*. New York: Harper & Row.

Piore, M., and Sabel, C. (1984). *The Second Industrial Divide*. New York: Basic Books.

Polanyi, M. (1966). *The Tacit Dimension*. London: Routledge and Kegan Paul.

Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.

Porter, M. E. (1985). *Competitive Advantage*. New York: Free Press.

— (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Powell, W. W. (1990). 'Neither Market nor Hierarchy: Network Forms of Organization.' *Research in Organizational Behavior*, 12: 295–335.

— and DiMaggio, P. J. (eds.) (1991). *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press.

Quinn, J. (1989). 'Strategic Change: Logical Incrementalism'. *Sloan Management Review*, Summer: 9–21.

Roy, W. G. (1997). *Socializing Capital*. Princeton: Princeton University Press.

Royal Commission on Labour (1894). *Report on the Condition of Foreign labour*, Vol. 39/ii. London: HMSO.

Sayles, L. R. (1954). *Behavior in Industrial Work Groups*. New York: Wiley.

Schumpeter, J. (1950). *Capitalism, Socialism and Democracy*. New York: Harper.

Scott, W. R. (1995). *Institutions and Organizations*. London: Sage.

Selznick, P. (1949). *TVA and the Grass Roots*. Berkeley: University of California Press.

—. (1957). *Leadership in Administration*. Evanston, Ill: Row and Peterson.

Shearman, C., and Burrell, G. (1988). 'The Structure of Industrial Development'. *Journal of Management Studies*, 24/4: 325–45 

Simon, H. A. (1947). *Administrative Behavior*. New York: Free Press.

Simon, H. A. (1991). 'Organizations and Markets'. *Journal of Economic Perspectives*, 5/2: 25–44

Spar, D. (2001). *Ruling the Waves*. New York: Harcourt Brace.

- Spender, J.-C. (1989). *Industrial Recipes: An Enquiry into the Nature and Sources of Managerial Judgement*. Oxford: Blackwell.
- Stinchcombe, A. L. (1965). 'social Structure and Organizations', in J. G. March (ed.), *Handbook of Organizations*. Chicago: Rand McNally.
- Streeck, W., and Schmitter, P. C. (eds.) (1985). *Private Interest Government: Beyond Market and State*. Beverly Hills, Calif, and London: Sage.
- Suchman, M. C. (2000). 'Managing Legitimacy: Strategic and Institutional Approaches'. *Academy of Management Review*, 20/3: 571–610. [Link](#)
- Swan, G. M. P., Prevezer, M., Stout, D. (1998). *The Dynamics of Industrial Clustering*. Oxford: Oxford University Press.
- Teece, D. (1976). *The Multinational Corporation and the Resource Cost of International Technology Transfer*. Cambridge, Mass.: Ballinger.
- (1986). 'Profiting from Technological Innovation'. *Research Policy*, 15/6: 285–305.
- Tolbert, P. S., and Zucker, L. G. (1996). 'The Institutionalisation of Institutional Theory', in S. R. Clegg, C. Hardy, and W R. Nord (eds.), *Handbook of Organization Studies*. London: Sage.

end p.136

- Tribe, K. (1995). *Strategies of Economic Order*. Cambridge: Cambridge University Press.
- Tushman, M., and Anderson, D. (1980). 'Technological Discontinuities and Organizational Environments'. *Administrative Quarterly*, 31: 439–65. [Link](#)
- Unger, R. M. (1987). *Plasticity into Power*. Cambridge: Cambridge University Press.
- Urry, J. (1973). *Reference Groups and the Theory of Revolution*. London: Routledge and Kegan Paul.
- Van de Ven, A., Anglett, S., Scott-Poole, M. (eds.) (1989). *Research on the Management of Innovation*. New York: Harper & Row.
- Voltaire, (1733; 1964 edn). '10: Lettre sur le commerce', in *Lettres philosophiques*. Paris: Flammarion, 66–7.
- Ward, R. (1987). 'Resistance, Accommodation and Advantage: Strategic Development in Ethnic Business', in G. Lee and R. Loveridge (eds.), *The Manufacture of Disadvantage*. Milton Keynes: Open University Press, 159–75.
- Whitley, R. (1992). *Business Systems in East Asia*. London: Sage.
- (1999). *Divergent Capitalisms*. Oxford: Oxford University Press.
- Whittington, R., and Mayer, M. (2000). *The European Corporation*. Oxford: Oxford University Press.
- Williamson, O. E. (1975). *Markets and Hierarchies*. New York: Free Press.
- (1982). 'The Economics of Organization: The Transaction Cost Approach'. *American Journal of Sociology*, 87: 548–77. [Link](#)
- Woolcock, M. (1998). 'social Capital and Economic Development'. *Theory and Society*, 27: 151–208. [Link](#)
- Yoffie, D. B. (ed.) (1997). *Competing in the Age of Digital Convergence*. Boston: Harvard Business School Press.
- Zucker, L. G. (1977). 'The Role of Institutionalization in Cultural Persistence'. *American Sociological Review*, 58: 536–56.

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6 The Strategic Management of Technology and Intellectual Property

David J. Teece

6.1 Introduction

THE strategic management of technology is fundamentally about the commercialization of new knowledge. This chapter accordingly focuses very little on the creation of new knowledge, focusing instead mainly on commercialization aspects. Commercialization is primarily about the entrepreneurial role of bringing technology to the user and winning in the marketplace. It involves the quest for competitive advantage—using knowledge, technology, and intellectual property as the differentiator.

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6.2 The Nature of Knowledge

Whether one is talking about creating new technological know-how or bringing new products and process embodying such know-how to the market, it is helpful to begin by discussing the nature of the knowledge assets implicated by the management of technology. To some, it is a little novel to be talking about 'managing' knowledge. Yet this is now a critical business function, requiring new concepts and some accepted definitions. In a business context, the following taxonomies are useful.

6.2.1 Tacit/Codified

Much Industrial knowledge is tacit. Tacit knowledge¹

¹ This section is based on Teece (1981: 82–4).

is that which is difficult to articulate in a way that is meaningful and complete. It is often hard to explain to others things which one knows intuitively. The fact that we know more than we can tell speaks to the tacit dimension of knowledge. Moreover, stand-alone codified knowledge—knowledge which can be written down such as blueprints, formulas, or computer code—need not convey much meaning. It is more akin to information than knowledge.

Consider how to sail a yacht. It can be readily explained by elementary physics and mechanics. But if one gives such instruction, and puts the student into a sailing dinghy with a good breeze afoot, for sure the dinghy will soon be capsized. The transfer of codified knowledge is insufficient. Tacit knowledge built with just a few hours of real experience—how to hold the mainsheet, where to put one's weight, just how to 'point' as the wind shifts, etc.—is critical to establish even a modest level of proficiency.

Consider the apprenticeship system as a further example. First, a master craftsman can cope with only a few pupils at a time. Second, his teaching is dispensed mostly through examples rather than by precept—even the master cannot easily put the intangible elements of skill into words. Third, the examples offered will be initially confusing and ambiguous for his pupils so that learning has to take place through extensive and time-consuming repetition, and mastery will occur gradually on the basis of 'feel'. Finally, the pupil's eventual mastery of the craft or skill will remain idiosyncratic and will never be an exact replica of the master's. The scope provided for the development of a personal style defines a craft as something that goes beyond the routine and hence programmable application of a skill.

There appears to be a simple but powerful relationship between codification of knowledge and the cost of its transfer. Simply stated, the more a given item of knowledge or experience has been codified, the more economically at least part of it

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can be transferred. This is a purely technical property that depends on the ready availability of channels of communication suitable for the transmission of well-codified information—for example, printing, radio, telegraph, and data networks. Whether information so transferred will be considered meaningful by those who receive it will depend on whether they are familiar with the code selected as well as the different contexts in which it is used (Shannon and Weaver 1949).²

² These ideas are developed farther in Shannon and Weaver (1949). I am grateful to Max Boisot for drawing them to my attention.

Tacit knowledge is slow and costly to transmit. Ambiguities abound and can be overcome only when communications take place in face-to-face situations. Errors or interpretation can be corrected by a prompt use of personal feedback.

The transmission of codified knowledge, on the other hand, does not necessarily require face-to-face contact and can often be carried out largely by impersonal means, such as when one computer 'talks' to another, or when a technical manual is passed from one individual to

another. Messages are better structured and less ambiguous if they can be transferred in codified form.

6.2.2 Observable/Non-Observable in Use

Much technology is available for public examination once sold. This is simply an unavoidable consequence of engaging in commerce. This may not be what the developer of new knowledge wants; but it is a harsh reality that generally must be accepted. For example, a new CT scanner, laser printer, or microprocessor is available for conceptual imitation and reverse engineering once it has been introduced into the market. The technology behind new products is typically revealed in this fashion.

Process technology, however, is often different. You cannot easily find out the manufacturing process by which something was made simply by inspecting the product. It is rare that 'signature' of a process is embedded in a product and is therefore ascertainable through reverse engineering. While clues about a manufacturing process may sometimes be gleaned by closely inspecting the product, much about process technology can be protected if the owners of process technology are diligent in protecting the trade secrets used in the factory. Thus, process technology is inherently more protectable than product technology, the patent system put to one side.

6.2.3 Positive/Negative Knowledge

Technological innovation involves considerable uncertainty. Research efforts frequently go down what turns out to be a blind alley. It is well recognized that a discovery (positive knowledge) can focus research on promising areas of enquiry,

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thereby avoiding blind alleys. However, it is frequently forgotten that negative knowledge—knowledge of failures ('this approach doesn't work')—is also valuable, as it can help steer resource allocation into more promising avenues. For this reason, firms often find it desirable to keep their failures as well as their successes secret, even forgetting about issues of embarrassment.

6.2.4 Intangible Assets, Tangible Assets, and Intellectual Property

Knowledge assets are simply one class of intangible assets: Intangible assets differ from tangible assets in several important respects. These are summarized in Table 6.1. First, knowledge has aspects of what economists refer to as 'public goods'—consumption by one individual does not reduce the amount left for another. This is especially true for scientific knowledge. One engineer's use of Newton's Laws does not subtract from the ability of others to use the same laws.

However, the distinction erodes quickly as one moves towards industrial knowledge and away from scientific knowledge. While multiple use need not take away from knowledge—indeed knowledge may well be augmented—the economic value may well decline with simultaneous use by multiple entities. This is saying little more than the obvious. Imitators can dramatically lower the market value of knowledge by augmenting its supply in the market.

Table 6.1 Differences between intangible assets and tangible assets

	Knowledge (intangible) assets	Physical (tangible) assets
Publicness	Use by one party need not prevent use by another	Use by one party prevents simultaneous use by another
Depreciation	Does not 'wear out'; but usually depreciates rapidly	Wears out; may depreciate quickly or slowly
Transfer costs	Hard to calibrate (increases with the tacit portion)	Easier to calibrate (depends on transportation and related costs)
Property rights	Limited (patents, trade secrets, copyrights, trademarks, etc.) and fuzzy, even in developed countries	Generally comprehensive and clearer, at least in developed countries
Enforcement of property rights	Relatively difficult	Relatively easy

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Competition simply drives down the price of knowledge, even though its utility has not declined. Relatedly, while knowledge does not wear out as do most physical assets (like tractors, trucks, refrigerators, and even disk drives), it is frequently exposed to rapid depreciation because of the creation of new knowledge. Thus, leading-edge products in the computer industry are often obsolete in a matter of months, not years. In fact, the depreciation may be so radical that a technological breakthrough drops the value of current practice technology to zero, or very nearly so.

An important difference between intangible and tangible assets is the availability and enforceability of property rights. Physical assets (i.e. land, cars, ships, jewelry) are generally well protected. Ownership is relatively easy to define, and the 'boundaries' of the property relatively easy to ascertain. Not so with intangibles. One normally thinks of different forms of intellectual property, that is patents, trade secrets,

trademarks, copyrights, etc. as providing comprehensive protection, but this is not so. There can be 'holes' and 'gaps' in intellectual property (IP) coverage. Moreover, patents and copyrights eventually expire and cannot be extended. This is generally not so for physical assets.

Patents, trade secrets, trademarks provide protection for different mediums in different ways. The strongest form of intellectual property is the patent. A valid patent provides rights for exclusive use by the owner, although depending on the scope of the patent it may be possible to invent around it, albeit at some cost. Trade secrets do not provide rights of exclusion on any knowledge domain, but they do protect covered secrets in perpetuity. Trade secrets can well augment the value of a patent position. Different knowledge mediums qualify for different types of intellectual property protection. The degree that intellectual property keeps imitators at bay may depend also on other external factors, such as regulations, which may block or limit the scope for invent-around alternatives. Table 6.2 summarizes general characteristics of legal forms of protection in the United States.

6.3 Replicability, Imitability, and Appropriability of Knowledge

The economic value of knowledge depends not just on its ultimate utility, but on the ease of transfer and replicability. If it can be replicated, it can be 'scaled' and applied in new contexts. Replicability is closely related to transferability. If it can be transferred, from one geography to another, or from one product market context to a different one, then it can potentially yield more value. But the catch is that if it can be readily transferred, it is also prone to being lost to one's competitors.

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6 The Strategic Management of Technology and Intellectual Property

Table 6.2 Characteristics of legal forms of protection in the United States

Considerations	Copyright	Trade secret	Patent	Trademark	Mask Works *
National uniformity	Yes	No	Yes	Yes	Yes
Protected property	Expression of idea	Secret information	Invention	Goodwill	Semiconductor chip designs
Scope of protection	Exclusive right to reproduce, prepare derivative works, publicly distribute, display, and perform	Right to make, use, and sell secret and to protect against improper use or disclosure	Right to exclude others from making, using, selling	Proscribes against misrepresentation of source	
Effective date of protection	Creation of work	From date of conception or receipt of secret information	Patent application date	Use and/or filing date of US application issuing as principal registration on or after 16 Nov. 1989	First commercial exploitation
Cost of obtaining protection	Low	Low	Moderate	Low	Low
Term of protection	Life of author plus 50 years, or 70 years	Possibility of perpetual protection; or termination at any time by improper disclosure or individual development by others	20 years	Perpetual if used correctly and diligently policed	10 years
Cost of maintaining protection	Nil	Moderate	Moderate	Moderate	Nil
Cost of enforcing rights against violators	Moderate	High	High	Moderate	Moderate

* Semi-conductor industry only.

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6.3.1 Replication

The replication ³

³ This section is based in part on Teece, Pisano, and Shuen (1997).

of know-how involves transferring or redeploying competences from one economic setting to another. Since productive knowledge is typically embodied, this cannot be accomplished by simply transmitting information. Only in those instances where all relevant knowledge is fully codified and understood can replication be collapsed into a simple problem of information transfer. Too often, the contextual dependence of original performance is poorly appreciated, so unless firms have replicated their systems of productive knowledge on many

prior occasions, the act of replication is likely to be difficult (Teece 1977). Indeed, replication and transfer are often impossible without the transfer of people, though this can be minimized if investments are made to convert tacit knowledge to codified knowledge. However, this may not be possible.

In short, knowledge assets are normally rather difficult to replicate. Even understanding the relevant routines that support a particular competence may not be transparent. Indeed, Lippman and Rumelt (1992) have argued that some sources of competitive advantage are so complex that the firm itself, let alone its competitors, does not understand them.

At least two types of benefit flow to the firm from expertise in replication. One is simply the ability to support geographic and product line expansion ('scalability'). To the extent that the organizational capabilities in question are relevant to customer needs elsewhere, replication can confer value. Another is that the ability to replicate indicates that the firm has the foundations in place for learning and improvement.

Understanding processes, both in production and in management, is the key to process improvement; an organization cannot improve that which it does not understand. Deep process understanding is often required to accomplish codification and replication. Indeed, if knowledge is highly tacit, it indicates that the phenomenon may not be well understood. This limits learning because scientific and engineering principles cannot be as systematically applied. Instead, learning is confined to proceeding through trial-and-error, and the leverage that might otherwise come from the application of modern science is denied.

6.3.2 Imitation

Imitation is simply replication performed by a competitor. If self-replication is difficult, imitation is likely to be even harder. In competitive markets, it is the ease of imitation that determines the sustainability of competitive advantage. Easy imitation leads to the rapid dissipation of competitive advantage.

end p.144

Factors that make replication difficult also make imitation difficult. Thus, the more tacit the firm's productive knowledge, the harder it is to replicate by the firm itself or its competitors. When the tacit component is high, imitation may well be impossible, absent the hiring away of key individuals and the transfer of key organizational processes.

Imitation can also be hindered by the fact that few routines work well in all contexts. Thus, imitating a part of what a competitor does may not enhance performance at all. Understanding the overall logic of organization and superior performance is often critical to successful imitation.

In advanced industrial countries, intellectual property rights frequently impede imitation of certain capabilities. These rights present a formidable imitation barrier in certain particular contexts. Several other factors, in addition to the patent system, cause there to be a difference between replication costs and imitation costs. The observability of the technology or the organization is one such important factor. As mentioned earlier, while insight into product technology can be obtained through strategies such as reverse engineering, this is not the case for process technology, as a firm need not expose its process technology to the outside in order to benefit from it. Firms with product technology, on the other hand, confront the unfortunate circumstances that they must expose what they have got in order to complete a sale. Secrets are thus more protectable if there is no need to expose them in contexts where competitors can learn about them.

6.3.3 Appropriability

The term 'appropriability regimes' can be used to summarize the ease of imitation. Appropriability is a function both of the ease of replication and the efficacy of intellectual property rights as a barrier to imitation. Appropriability is strong when a technology is both inherently difficult to replicate and the intellectual property system provides legal barriers to imitation. When the technology is inherently easy to replicate and intellectual property protection is either unavailable or ineffectual, then appropriability is weak. 'Me too' products proliferate in such circumstances. Intermediate conditions also exist (see Figure 6.1).

6.3.4 The Distinction between Innovation and Intellectual Property

Much confusion has been caused by ignoring the significant distinction between an innovation and the intellectual property which embodies that innovation. The

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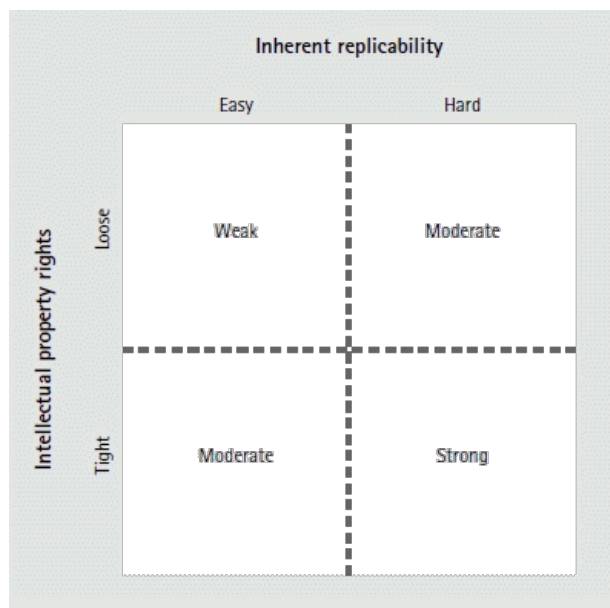


Fig. 6.1 Appropriability regimes for knowledge assets

latter is a legal right (or, more precisely, a collection of various legal rights, some procedural, and some substantive).

An inventor develops say, a new technology for cracking petroleum. The technology exists when it has been developed and tested. But it only becomes covered by intellectual property once it is legally recognized as such—in the case of patents, when a particular country's patent office grants the inventor's application and issues the patent. An issued patent is presumed to be valid, but its ultimate validity is never established until it is challenged, and validity subsequently upheld in a court of law.

This distinction between the innovation and legal 'intellectual property' rights is most readily seen when the property right grant expires. Beethoven's copyright in his compositions has long since expired, but Beethoven's creations live on. An innovation may be just as valuable to society—in the sense that it represents an advance over the available alternative technologies—the day after the patent on that innovation expires as it was the day before the patent expires. But the legal rights of the innovator are radically different before and after the expiration date; after that date, the innovator has no right to exclude others from using the innovation. The private value falls, but the social value does not decline, and may in fact increase.

One other key distinction is that the innovation and the legal rights are often not coextensive. An innovator may only obtain legal rights over part of the totality of

end p.146

the innovation. Confusion can sometimes arise when individuals seek to assess the value of the 'technology' per se, rather than the value of the patent rights—namely, the right to exclude others from using the patented aspects of the technology. If the two are sold together, it may not matter. When they are not, it does.

6.4 The Value of Intellectual Property

6.4.1 Value is Highly Content Dependent

The value of intellectual property (IP) is typically determined in bargaining between just a few buyers and sellers. Put differently, IP markets are 'thin'; IP is typically used in conjunction with technology and complementary assets. The incremental value which the IP will yield is thus likely to depend on many factors.

If the IP is one of several assets which together create value, then value must somehow be apportioned amongst the assets whose services are used along with the IP to create value. If these assets are traded or otherwise available for purchase or rental in a reasonably transparent market, then the apportionment problem is simplified. Otherwise, some kind of apportionment method must be devised. This is discussed more fully below.

6.4.2 Property Boundaries are Fuzzy

As discussed earlier, IP frequently lacks crisp boundaries. This is especially problematic in areas (such as trade secrets, or the 'doctrine of equivalents' in US patent law, or the concept of 'look and feel' in trademark and trade dress cases) where the intellectual property rights are not written down in a codified fashion. For example, an author can copyright a book. But the copyright extends beyond the precise words of the book, to include various adaptations and variations, derivative works, foreign translations, parodies, etc.

There is frequently ambiguity as to what is proprietary and what is public. There is a common fund of public knowledge, and the line of demarcation between public and private may sometimes be blurred. There is a well-known copyright case in which George Harrison was found liable for unintentionally copying the melody from the song 'He's So Fine' for his own song 'My Sweet Lord'.

The situation can be analogized to one in which title to land or to goods and chattels were defined in imprecise terms. Suppose property boundaries for land

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were vague. It would be difficult to value such land. But this is frequently the situation with intellectual property that has not already been tested (causing boundaries to be defined) in court.

6.4.3 Apportionment with Complementary Assets

Intellectual property, standing alone, generates little or no value to the final consumer. A patent, for instance, is merely a piece of paper that conveys the right to exclude others. The vast majority of patents are never practiced. Rather, value typically arises only after inventions are embedded in devices which are then combined with other assets to produce a product or service which is sold in a market.

To take a simple example: merely coming up with an idea for a better semiconductor, or even obtaining a patent or copyright on a design for a better semiconductor, does not generate economic value. What generates value is when some entity combines that idea with the manufacturing, marketing, after sales support, and other capabilities that are necessary to actually produce and sell semiconductors. Complementary assets typically assist in the extraction of value from intellectual property. Such assets require a return which is analytically separate from the intellectual property itself.

In short, there are often significant hurdles that have to be cleared, and significant risks that must be undertaken, before an innovative idea can be successfully commercialized. Often, the individual(s) or firm(s) which supplies the necessary complementary assets and skills needed in order to commercialize the innovation, or which takes the necessary risks, are not the same as the inventor. When this is the case, the gains from innovation get split not only with the consumer, but also with the owners of the relevant complementary assets. Getting the commercialization strategy right is thus most important, and the subject of the next section.

6.5 Entry Strategies for Innovators

6.5.1 Phenomenon

Why do some companies win with innovative products and processes that prove to be of great commercial value but then, after successful commercialization, cede most of the available profits to imitators and other followers? (Figure 6.2).

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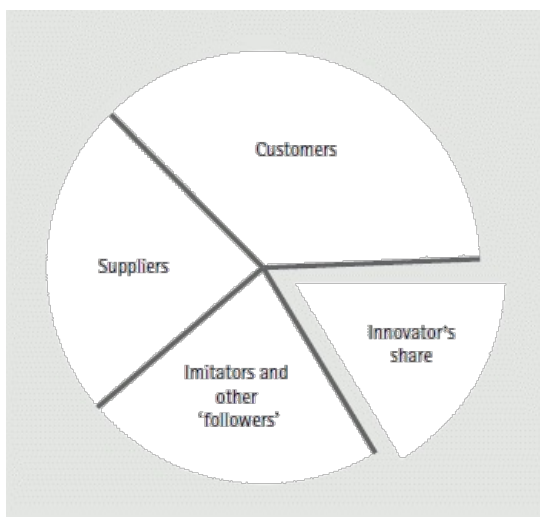


Fig. 6.2 Explaining the distribution of the profits of innovation

The phenomenon is very common. First British and then American firms fell victim to it in the second half of the twentieth century. Even today the 'winners' are frequently the losers! It is not only troubling to the innovating firms who may get wiped out; it is also troubling to innovating nations, who may be surprised to find that technological prowess does not automatically translate into rising standards of living. In this sense, the problem is one that concerns both managers and policy-makers. Much of the problem lies in the private sector, and is associated with poor firm-level positioning, poor strategy, and poor execution. The right entry strategies for innovators can serve to reduce, not eliminate the probability of a pyrrhic victory. Government policies at home and abroad also condition outcomes, but do not determine them.

Before getting into analytic detail, it is instructive to consider some examples of the phenomenon. Figure 6.3 represents a simplified taxonomy of the possible outcomes from innovation. Quadrant 1 represents positive outcomes for the innovator. A first-to-market advantage is translated into a sustained competitive advantage which either creates a new earnings stream or enhances an existing one.

The EMI CAT Scanner is a classic case of the phenomenon to be investigated (Martin 1984).⁴

⁴ The EMI story is summarized in Martin (1984).

By the early 1970s, the UK firm Electrical Musical Industries (EMI) Ltd was in a variety of product lines including phonographic records, movies, and advanced electronics. EMI had developed high resolution televisions in the 1930s, pioneered airborne radar during World War II, and developed the UK's first all solid-state computers in 1952.

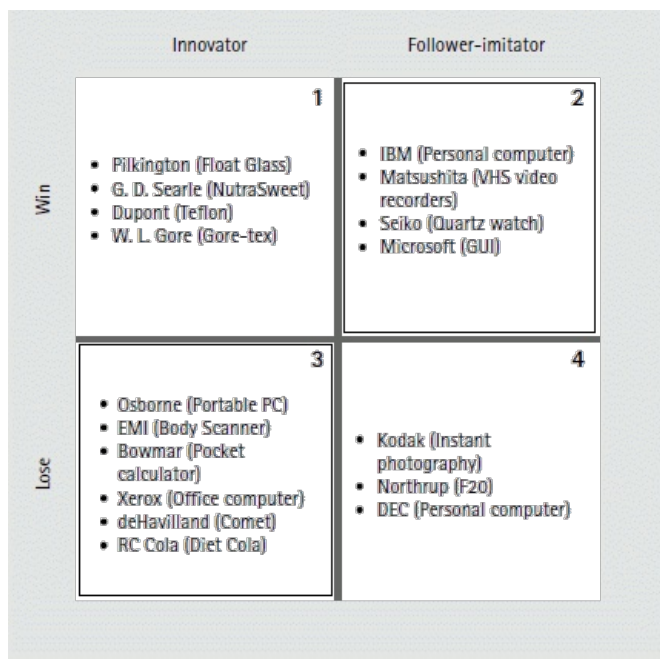


Fig. 6.3 Taxonomy of outcomes from the innovation process

In the late 1960s, Godfrey Houndsfield, an EMI senior research engineer, was engaged in pattern recognition research which resulted in him displaying a scan of a pig's brain. Subsequent clinical work established that computerized axial tomography (CAT) was viable for generating a cross-sectional 'view' of the human body, the greatest advance in medical technology since the discovery of X-rays in 1895. While EMI was initially successful with its CAT scanner, within six years of its introduction into the United States in 1973, the company had lost market leadership, and by the eighth year had dropped out of the CAT scanner business. Other companies, though late entrants, quickly came to dominate the market.

Other examples include Bowmar, which introduced the pocket calculator, but was unable to withstand the competition from Texas Instruments, Hewlett-Packard, and others, and went out of business. Xerox failed to succeed in entering the office computer business with its 'Star' system, even though Apple succeeded with the Macintosh, which contained many of Xerox's key product ideas, such as the mouse and icons. Osborne introduced the first portable PC but was soon thereafter destroyed by the manufacturers of laptops. The deHavilland Comet saga has some of the same features. The Comet I jet was introduced into the commercial airline business two years or so before Boeing introduced the 707, but deHavilland was unable, for reasons discussed later, to capitalize on its substantial early advantage.

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MITS introduced the first personal computer, the Atair, experienced a burst of sales, and then slid quietly into oblivion.

If there are innovators who lose, there must be followers and/or imitators who win. Successful followers may in turn lose in the next generation to others. A classic example is IBM with its PC, a great success when it was introduced in 1981. Neither the architecture nor components embedded in the IBM PC were commonly considered advanced when introduced; nor was the way technology was packaged a significant departure from then-current practice. Yet the IBM PC was very successful and established MS-DOS as the leading operating system for 16-bit PCs. By the end of 1984, IBM had shipped over 500,000 PCs, and many considered that it had irreversibly eclipsed Apple in the PC industry. Unfortunately, IBM's victory was not complete, as it had ceded control of the operating system and the microprocessor technology to Microsoft and Intel, respectively. Moreover, Compaq, Dell, and others in due course overturned IBM's success. Indeed, Dell's success was based on organizational innovation not technological innovation.

The body of this chapter describes various analytic concepts innovators can use to analyze new market opportunities. These concepts include the appropriability conditions, the stage in the design cycle, the complementary nature of assets, and contracting versus integration strategies. Using these concepts, it is possible to identify strategies most likely to win; identify strategies which can help the innovator 'win big'; explain when and why innovators will lose, and therefore should *not* enter markets even though their innovation has real commercial value.

6.5.2 Weak and Strong Appropriability

The most fundamental reason why innovators with good marketable ideas fail to enter or open up markets successfully is that they are operating in an environment where appropriability is weak and execute poorly on their market entry strategy. This constrains their ability to capture the economic benefits arising from their ideas. As discussed earlier, the two most important environmental factors conditioning appropriability are the efficacy of legal protection mechanisms and the nature of the technology (Figure 6.1).

6.5.3 Legal Protection

It is well known that patents do not generally block competitors. Rarely, if ever, do patents confer perfect appropriability, although they do afford considerable advantage in some industries, such as with new chemical products and rather simple mechanical inventions (Levin et al. 1987). Very often, patents can be 'invented

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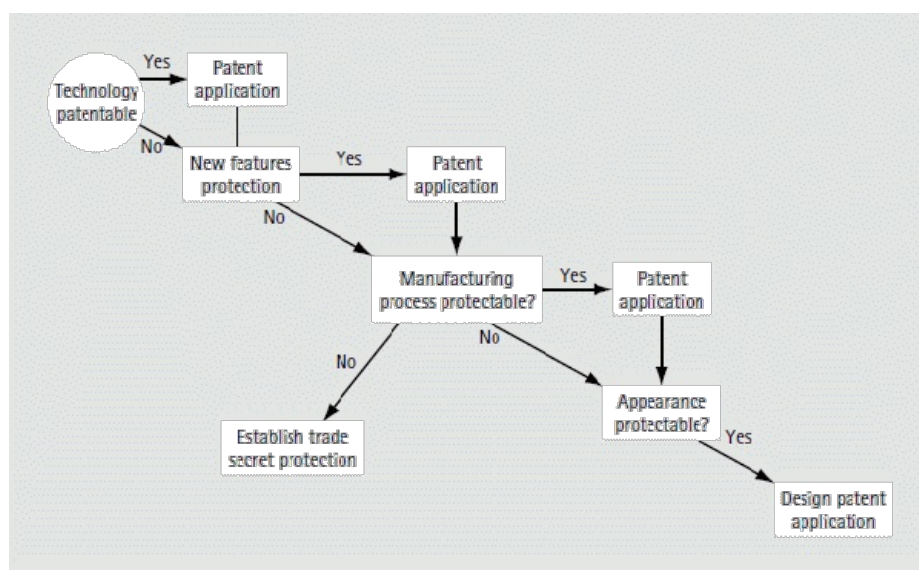


Fig. 6.4 Enhancing intellectual property protection around a core technology

around' at modest costs (Mansfield, Schwartz, and Wagner 1981; Mansfield 1985).⁵

⁵ Mansfield, Schwartz, and Wagner (1981) found that about 60% of the patented innovations in their sample were imitated within four years. In a later study, Mansfield (1985) found that information concerning product and process development decisions was generally in the hands of at least several rivals within 12–18 months, on average, after the decision is made. Process development decisions tend to leak out more than product development decisions in practically all industries, but the differences on average were found to be less than six months.

They are especially ineffective at protecting process innovations. Often patents provide little protection because the legal and financial requirements for upholding their validity or for proving their infringement are high.

The degree of legal protection a firm enjoys is not necessarily a 'god given' attribute. The inventor's own intellectual property strategy itself enters the equation. As shown in Figure 6.4, the inventor of core technology need not only seek to patent the innovation itself, but can also seek complementary patents on new features and/or manufacturing processes, and possibly on designs. Of course, the more fundamental the invention, the better the chances that a broad patent will be granted, and granted in multiple jurisdictions. It must be recognized that exclusionary rights are not fully secured by the mere issuance of a patent once issued. While a patent is presumed to be valid in many jurisdictions, validity is never firmly established until a patent has been upheld in court. The strongest patents are those that are broad in scope, and have already been upheld in court.

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In some industries, particularly where the innovation is embedded in processes, trade secrets are a viable alternative to patents. Trade

secret protection is possible, however, only if a firm can put its product before the public and still keep the underlying technology secret. Usually only chemical formulas and industrial-commercial processes can be protected as trade secrets after they're 'out'.

6.5.4 Inherent Replicability and the Nature of Industrial Knowledge

The degree to which knowledge about an innovation is tacit or easily codified also affects the ease of imitation. Tacit knowledge is, by definition, difficult to articulate and so is hard to pass on unless those who possess the know-how can demonstrate it to others. It is also hard to protect using intellectual property law.

Codified knowledge is easier to transmit and receive and is more exposed to industrial espionage. On the other hand, it is often easier to protect using the instruments of intellectual property law (Figure 6.5). As discussed in Section 6.3.3, we can divide appropriability regimes into 'weak' (innovations are difficult to protect because they can be easily codified and legal protection of intellectual property is ineffective) and 'strong' (innovations are easy to protect because knowledge about them is tacit and/or they are well protected legally). Despite recent efforts to strengthen the protection of intellectual property, strong appropriability is the exception rather than the rule. This has been so for centuries, and it will never be substantially different in democratic societies, where individuals and ideas move with little governmental interference.

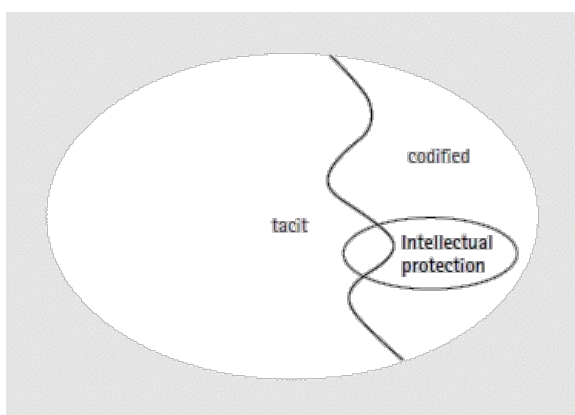


Fig. 6.5 Components of industrial knowledge

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Innovators able to enter markets in which they are favored by strong appropriability conditions have a reasonable chance of winning commercially; in weak regimes they often lose. Since strong appropriability is the exception rather than the rule, innovators must adopt shrewd market entry strategies if they are to keep imitators and other followers at bay. While the development and implementation of strategies will help, they will often not be enough.

6.5.5 Market Entry Strategies before the Emergence of a 'Dominant Design'

The best market entry strategies for an innovator with good, marketable ideas depend not only on the appropriability regime, but also on where the industry is in its development cycle. In the early stages of development of most industries, product designs are fluid, manufacturing processes are loosely and adaptively organized, and general purpose equipment is used in production. Competition between firms manifests itself in competition between designs, which are markedly different from each other.

At some point in time, and after considerable trial and error in the marketplace, one design or a narrow class of designs begins to emerge as the more promising. Such a design must be able to meet a whole set of user needs in a relatively complete fashion. The Model T Ford, the Douglas DC-3, and the IBM 360, are examples of dominant designs that emerged in the automobile, aircraft, and computer industries, respectively.

The existence of a dominant design watershed is of great significance to the strategic positions of the innovator and its competitors. Once a dominant design emerges, competition migrates to price and away from design fundamentals. Competitive success then shifts to a whole new set of variables. Scale and learning become much more important, and specialized capital is deployed as incumbents seek to lower unit costs through exploiting economies of scale and learning. Reduced uncertainty over product design provides an opportunity to amortize specialized long-lived investments.

Product innovation is not necessarily halted once the dominant design emerges; as Clark (1985) points out, it can occur lower down in the

design hierarchy. For example, a 'v' cylinder configuration emerged in automobile engine blocks during the 1930s with the emergence of the Ford V-8 engine. Niches were quickly found for it. Moreover, once the product design stabilizes, there is likely to be a surge of process innovation in an attempt to lower production costs for the new product (Figure 6.6).

The product/process innovation cycle does not characterize all industries. It seems more suited to mass markets where customer tastes are relatively homogeneous.

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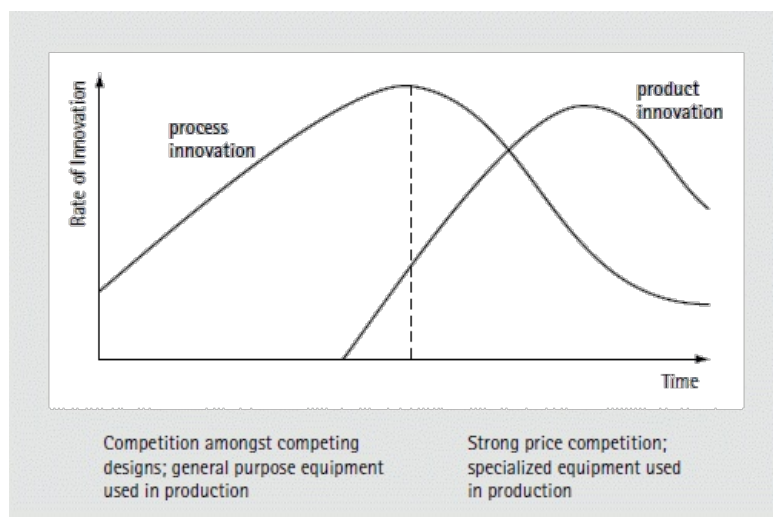


Fig. 6.6 Innovation over the product/industry life cycle

It would appear to be less characteristic of small niche markets where the absence of scale and learning economies attaches much less of a penalty to fragmentation.

A close analogy to the dominant design concept is the establishment of a leading virtual community in Internet space. The challenge for many Internet companies is to establish a significant base of active users. This will not only build brand, but to the extent a community exists, others will be attracted who may wish to participate in chat rooms and on bulletin boards, etc. When significant externalities are associated with membership and participation, it is important for the Internet site to become established as the lead user base. This position can then be the platform for follow-along advertising revenue and selling activity.

6.5.6 Strong Appropriability

In any case, timing need not unduly worry an innovator who is preparing to enter a market with relevant technology which is inherently difficult to replicate and/or has good intellectual property protection, because the innovator knows that the ideas possessed must form some part of the eventual dominant design. Even if the innovator comes to market in this early phase with a sound product concept but the wrong design, good intellectual property protection may afford the time needed to perform the trials needed to get the design right. As suggested earlier, the best initial design concepts often turn out to be hopelessly wrong, but if the innovator

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possesses an impenetrable thicket of patents, or has technology which is simply difficult to copy, then the market may well afford the innovator the necessary time to ascertain the right design without being eclipsed by imitators. The innovator can thus proceed through this early phase of industry development confidently, concentrating strategic thinking on how to win *after* this dominant design emerges, as discussed later on.

6.5.7 Weak Appropriability

In the early design development of an industry with weak appropriability, the innovator has to recognize that although he or she may have been responsible for the fundamental scientific breakthroughs as well as the basic design of the new product, as with Ampex and the VCR, imitators may enter the fray, modifying the product in important ways, yet relying on the fundamental designs pioneered by the

innovator. When the game of musical chairs stops and a dominant design emerges, the innovator might well be disadvantageously positioned relative to a follower. When imitation is possible and occurs in conjunction with design modification before the emergence of a dominant design, followers have a good chance of having their modified product anointed as the industry standard, often to the great disadvantage of the innovator.

In this situation the innovator must be careful to let the basic design 'float' until sufficient evidence has accumulated that a design has been delivered which is likely to become the industry standard. In some industries there maybe little opportunity for product modification. In other industries the scope may be quite considerable. The reason for letting the design float is that once a heavy capital investment is committed to a particular design, the innovator will have created irreversibilities that will prove to be a severe handicap if the initial guesses with respect to what the market wants turn out to be wrong.

The early history of the automobile industry exemplifies exceedingly well the importance for subsequent success of selecting the right design. None of the early producers of steam cars survived the early shakeout when the closed body internal combustion engine automobile emerged as the dominant design. The steam car, nevertheless, had numerous early virtues, such as reliability, which the internal combustion engine autos could not deliver.

The British fiasco with the Comet I is also instructive. DeHavilland had picked an early design with significant flaws. By racing on to production, significant irreversibilities and loss of reputation seemed to prevent the innovator from successfully converting to what subsequently emerged as the dominant design.

As a general principle, it appears that innovators in weak appropriability regimes need to be intimately coupled to the market so that user needs can fully impact

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designs. When multiple, parallel, and sequential prototyping is feasible, it has clear advantages. Generally such an approach is simply prohibitively costly.

In summary, the probability may be low that an innovator in a market with weak appropriability will enter possessing the dominant design. The probability will be higher the lower the relative cost of prototyping, and the more tightly linked the firm is to the market. The latter is a function of organizational design. Hence, in industries with large development and prototyping costs—and significant irreversibilities—and where imitation of the product concept is easy, then the probability that the innovator will be among the winners when the dominant design emerges may be very low indeed. In this situation, it may not make sense for the innovator to compete at all. Indeed, had the innovator been able to foresee this situation when planning research and development, he or she would have recognized that *even if* this R&D program were to be successful in delivering a technological breakthrough with significant economic benefits, it might not be worth pursuing because competitive advantage would not be sustainable.

6.5.8 Market Entry Strategies after the Emergence of the Dominant Design

Suppose the innovator is still in the game when the dominant design has emerged. He or she then has to face a new problem—that of securing access to complementary assets. In order for such know-how to generate a profit, it must be sold or utilized in some fashion in the market. In almost all cases, the successful commercialization of an innovation requires that the know-how in question be utilized in conjunction with the services of other assets (Figure 6.7). Services such as marketing, competitive manufacturing, and after-sales support are almost always needed. These services are often obtained from complementary assets which are specialized. For example, the commercialization of a new drug is likely to require the dissemination of information over a specialized information channel. In some cases, the complementary assets may be the other parts of a system. For instance, computer hardware typically requires the development of specialized software, both for the operating system, as well as for applications.

Before the dominant design emerges, production volumes are low, and there is little to be gained in deploying specialized assets, as scale economies are unavailable, and price is not a principal competitive factor. However, as the leading design or designs begin to be revealed by the market, volumes increase and opportunities for economies of scale will induce firms to begin gearing up for mass production by acquiring specialized tooling and equipment, and possibly specialized distribution

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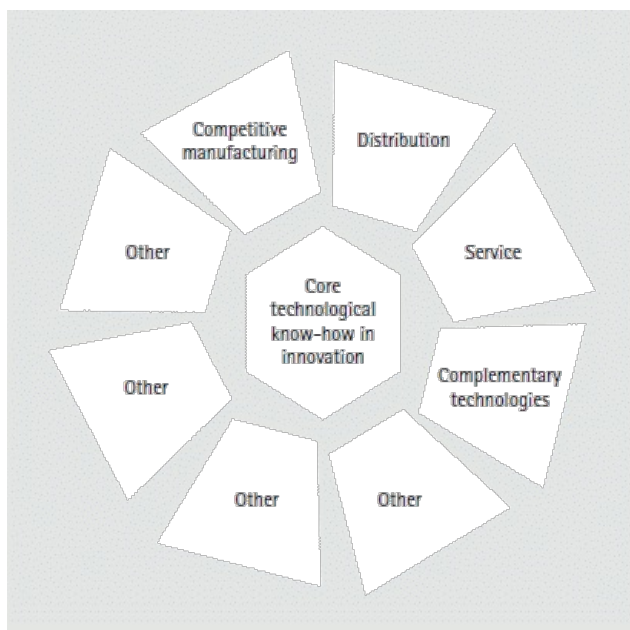


Fig. 6.7 Representative complementary assets needed to commercialize an innovation

as well. Since these investments involve significant irreversibilities, producers are likely to proceed with caution. 'Islands' of asset specifically will thus begin to form in a 'sea' of generalized assets.

The interdependence between the innovators and the complementary assets can, of course, vary tremendously. At one extreme, the complementary assets may be virtually generic, have many potential suppliers, and be relatively unimportant when compared with the technological breakthrough represented by the innovation. At the other, successful commercialization of the innovation may depend critically on a bottleneck asset which has only one possible supplier. Between these two extremes there is the possibility of 'cospecialization'—where the innovation and the assets depend on each other. An example of this would be containerized shipping, which requires specialized trucks and terminals that can all work in conjunction with each other.

As we shall see below, the main decision the innovator has to make in the second phase of industry development is what to do with respect to the complementary assets. Although there are a myriad of possible arrangements, two pure types stand out.

At one extreme the innovator could integrate into (i.e. build or acquire) all of the necessary complementary assets. This is likely to be unnecessary as well as prohibitively

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expensive. It is as well to recognize that the variety of assets and competences which need to be accessed is likely to be quite large, even for only modestly complex technologies. To produce a personal computer, for instance, expertise is needed in semiconductor technology, disk drive technology, networking technology, keyboard technology, to name but a few. No one company has kept pace in all of these areas by itself. Accordingly, manufacturers must somehow access these assets, possibly through straightforward contractual relationships (e.g. component supply contracts, etc.). In many instances contracts may suffice, although it does expose the innovator to various hazards and dependencies that it may well wish to avoid. A brief synopsis of mixed modes then follows.

6.5.9 Contractual Modes

The advantages of 'outsourcing'—whereby the innovator contracts with independent suppliers, manufacturers, or distributors—are obvious. The innovator will not have to make the up-front capital expenditures needed to build or buy the assets in question. This reduces risks as well as cash requirements. Also, contractual relationships can bring added credibility to the innovator, especially if the innovator is relatively unknown when the contractual partner is established and viable. Indeed, arm's length contracting which embodies more than a simple buy-sell agreement is so common, and is so multifaceted, that the term 'strategic partnering' has been devised to describe it. Even large integrated companies such as IBM, Olivetti, and Phillips engage in it extensively. Even for established companies, partnering is essential, enabling companies to learn things they could not have learned without many years of trial and error. IBM's arrangement with Microsoft to use the latter's MS-DOS operating system of software on the IBM PC facilitated the timely introduction of IBM's personal computer into the market. Had IBM developed its own operating system, it would probably have missed the market window. It should,

however, have kept greater control over the intellectual property than it did. It accepted merely a fully paid up license for DOS, leaving Microsoft in the driver's seat.

Smaller, less integrated companies are often eager to sign on with established companies because of the name recognition and reputation spillovers. For instance, in the 1970s little known Cipher Data Products, Inc. contracted with IBM to develop a low-priced version of IBM's 3480.5 inch streaming cartridge drive. As Cipher management put it at the same time, 'one of the biggest advantages to dealing with IBM is that once you've created a product that meets the high quality standards necessary to sell into the IBM world, you can sell into any arena'.⁶

⁶ Comment attributed to Norman Farquhar, Cipher's vice-president for strategic development, as reported in *Electronic Business*, 1 October 1985, p. 128.

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It is most important to recognize, however, that strategic partnering, which is now extremely common, if not essential, is exposed to certain hazards, particularly for the innovator, and particularly when the innovator is trying to use contracts to access special capabilities. For instance, it may be difficult to induce suppliers to make costly, irreversible commitments which depend for their success on the success of the innovation. To expect suppliers, manufacturers, and distributors to do so is to invite them to take risks along with the innovator. The problem which this poses for the innovator is similar to the problems associated with attracting venture capital. The innovator has incentives to overstate the value of the innovation, while the supplier has incentives to 'run with the technology' should the innovation be a success.

The annals of business history nevertheless provide instances of both parties making irreversible capital commitments. Apple's Laserwriter—a high-resolution laser printer which allowed users to produce near typeset quality text and art department graphics—is a case in point. Apple persuaded Canon to participate in the development of the LaserWriter by providing subsystems from its copiers—but only after Apple contracted to pay for a certain number of copier engines and cases. In short, Apple accepted a good deal of the financial risk in order to induce Canon to assist in the development and production of the LaserWriter. The arrangement appears to have been prudent, yet there were clearly hazards for both sides. It is difficult to write, execute, and enforce complex development contracts, particularly when the design of the new product is still 'floating', which it often is, even after commercialization. Apple was exposed to the risk that its co-inventor Canon would fail to deliver, and Canon was exposed to the risk that the Apple design and marketing effort would not succeed. Still, Apple's alternatives may have been rather limited, inasmuch as it did not command the requisite technology to 'go it alone'.

In short, unbridled enthusiasm for 'strategic partnering' may need to be tempered. The advantages are sometimes stressed without a balanced presentation of costs and risks. Briefly, (i) *there is the risk that the partner will not perform according to the innovator's perception of what the contract requires*; (2) *there is the added danger the partner may imitate the innovator's technology and attempt to compete with the innovator*. This latter possibility is particularly acute if the provider of the complementary asset is uniquely situated with respect to the specialized assets in question, and has the capacity to absorb and imitate the technology. These issues, and ways to manage them, are dealt with more fully in de Figueiredo and Teece (1996).

6.5.10 Integration Modes

Integration modes, which by definition involve equity participation, are distinguished from pure contractual modes in that they typically facilitate greater control and access to commercial information. Owning rather than renting the requisite

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specialized assets has clear advantages when the complementary assets are in fixed supply over the relevant time period. It is critical, however, that ownership be obtained before the requirements of the innovation become publicly known; otherwise the price of the assets in question is likely to be raised. The prospective seller, realizing the value of the asset to the innovator, may well be able to extract a portion, if not all, of the profits which the innovation can generate by charging a price which reflects the value of the asset to the innovator. Such 'bottleneck' situations are not uncommon, particularly in distribution. Owning or controlling a 'bottleneck' or 'choke point' in the value chain is clearly advantageous.

As a practical matter, however, an innovator may not have the time to acquire or build the complementary assets that ideally it would like to control. This is particularly true when imitation is easy, so that timing becomes critical. Additionally, the innovator may simply not have the financial resources to proceed.

Accordingly, innovators need to rank complementary, specialized assets as to their importance. If the assets are critical, ownership is warranted, although if the firm is cash constrained, a minority position may well represent a sensible trade-off. If the complementary asset

in question is technology or other intangible assets, this calculation may need to be revised. This is because ownership of creative enterprises appears to be fraught with hazards, as integration tends to destroy incentives and culture.

Needless to say, when imitation is easy, strategic moves to build or buy complementary assets which are specialized must occur with due reference to the moves of the competitors. There is no point creating a specialized asset, for instance, if one's imitators can do it faster and cheaper. Figure 6.8 indicates how these factors ought to condition the integration decision for a firm that does not already own certain complementary assets needed to bring the new product or process to market successfully.

It is hopefully self-evident that if the innovator is already a large enterprise with many of the relevant complementary assets under its control, integration is not likely to be the issue that it might otherwise be, as the innovating firm will already control many of the relevant specialized and co-specialized assets. However, in industries experiencing rapid technological change, technologies advance so rapidly that it is unlikely that a single company has the full range of expertise needed to bring advanced products to market in a timely and cost-effective fashion. Hence, the task of ownership of relevant complementary assets is not just a small firm issue.

6.5.11 Mixed Modes

The real world rarely provides extreme or pure cases. Decisions to integrate or contract/license involve trade-offs, compromises, and mixed approaches. It is not

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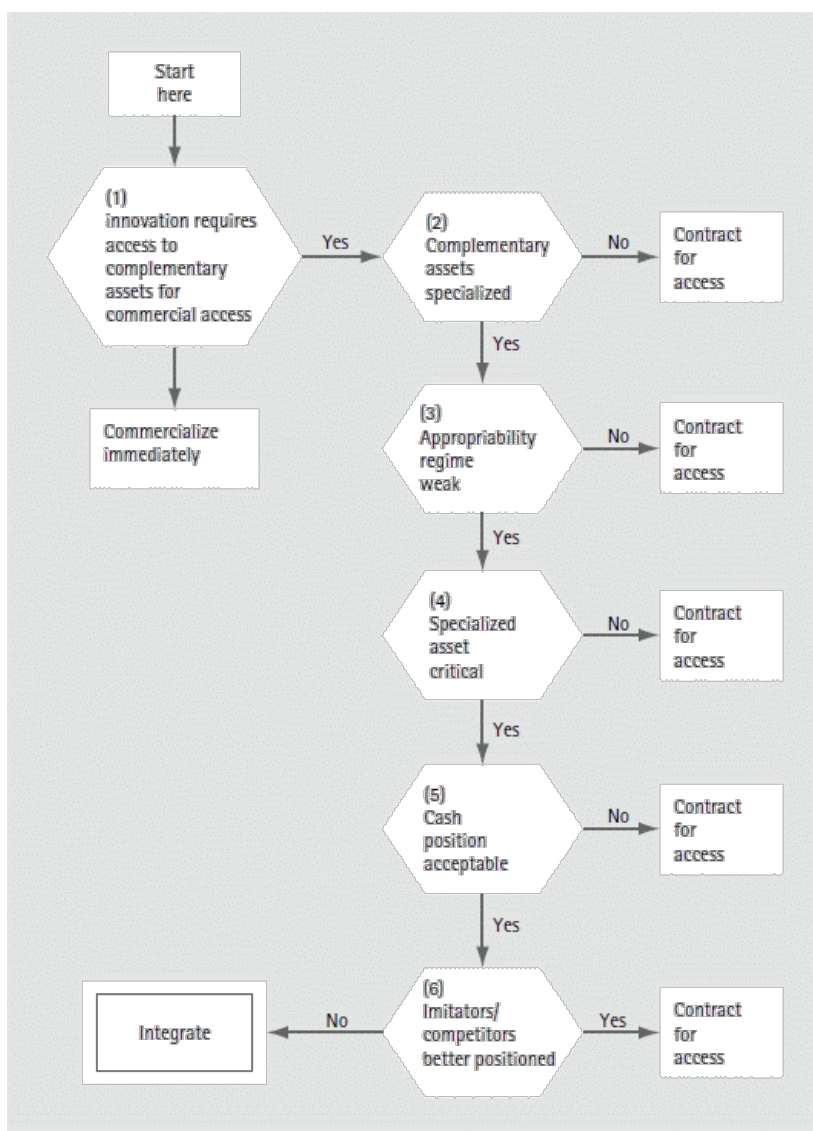


Fig. 6.8 Flow chart for integration vs. outsourcing (contract) decision

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6 The Strategic Management of Technology and Intellectual Property

surprising, therefore, that the real world is characterized by mixed modes of organization, involving judicious blends of contracting and integration. Relationships can be engineered which render contracts functionally akin to integration; internalization can be so decentralized as to be akin to contracts. Still, comparative analysis of the extremes can provide important insights into mixed modes.

Sometimes mixed modes represent transitional phases. For instance, because of the convergence of cable and telecommunication technology, firms in each industry are discovering that they often lack the capabilities in the other. Since the interdependence of the two requires collaboration, coordination and information flows are required. When separate enterprises are involved, agreement must be reached on complex protocol issues amongst parties who see their interests differently.

One profound example of how changing technology can impact the boundaries of the firm—and the identity of the party which sits at the nexus of contracts needed to develop and manufacture complex products—can be found in the jet fighter business. Avionics now constitutes more than one-third of the cost of a fighter, up from 20 percent two decades ago. Avionics is expected to be even more important in the future, not just in terms of cost, but also in terms of performance. Given the fairly widespread diffusion of airframe and propulsion technology, the superiority of fighters today and in the future will depend primarily upon the sophistication and capability of the aircraft's electronics. Indeed, electronics companies like Texas Instruments and IBM may well show up in the ranks of future prime contractors—displacing 'aircraft' manufacturers—for advanced weapons systems including fighters.

These requirements mean that, in order to compete in the advanced tactical fighter market in the future, it is imperative that prime contractors be on the leading edge with respect to avionics technology. If a manufacturer of fighter aircraft fails to develop or acquire such technology, it must expect to be closed out of a larger and growing portion of the market.

Airframe companies may not always be able to contract with electronics companies for the requisite sub-systems. Because avionics is becoming the core technology which will dictate other elements of design, it will not be enough for airframe companies to contract with avionics and propulsion companies. Indeed, the leading fighter aircraft manufacturers have developed in-house avionics capabilities. There are simply some technologies which are so central to the competitive performance of the system—in this case fighter aircraft—that an innovator cannot simply 'sub it out'. These technologies will be those which are the 'pacing' technologies. They are likely to be at the apex of the design hierarchy (Clark 1985), and, unless the innovator can monitor and promote these technologies, the chances of tying together the rest of the system through contracts is remote. However, if the innovator controls the pacing technologies, other complementary technologies can generally be accessed through contracts and joint ventures.

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6.5.12 Type of Innovation Also Affects Managerial Choices: Autonomous vs. Systemic

So far, the focus has been on how the appropriability regime and the terms upon which complements can be accessed ought to drive strategic choices. However, the choice of mode also depends upon the nature of the innovation as whether or not specific complementary assets are required depends in part on the nature of the innovation. Some innovations are autonomous—that is, they can be pursued independent of other innovations. A new turbocharger to increase horsepower in an automobile engine, for example, can be developed without a complete redesign of the engine or the rest of the car. In contrast, some innovations are fundamentally *systemic*—that is, their benefits can be realized only in conjunction with related, complementary innovations. To profit from instant photography, Polaroid needed to develop both new film technology and new camera technology. Similarly, lean manufacturing is a systemic innovation because it requires interrelated changes in product design, supplier management, information technology, and so on.

The distinction between autonomous and systemic innovation is fundamental to the choice of organizational design, and the desirability of outsourcing. When innovation is autonomous, the decentralized virtual organization can manage the development and commercialization tasks quite well. When innovation is systemic, members of a virtual organization are dependent on the other members, over whom they have no control. In either case, the wrong organizational choice can be costly.

Consider what happened to General Motors when the automobile industry shifted from drum brakes to disc brakes, an autonomous innovation. General Motors was slow to adopt disc brakes because it had integrated vertically in the production of the old technology. GM's more decentralized competitors relied instead on market relationships with their suppliers—and the high-powered incentives inherent in those relationships. As a result, they were able to beat GM to market with the new disc brakes, which car buyers wanted. When companies inappropriately use centralized approaches to manage autonomous innovations, as GM did in this case, small companies and more decentralized large companies will usually outperform them.

To understand why the two types of innovation call for different organizational strategies, consider the information flow essential to innovation. Information about new products and technologies often develops over time as managers absorb new research findings, the results of early product experiments, and initial customer feedback. To commercialize an innovation profitably, a tremendous amount of knowledge from industry players, from customers, and sometimes from scientists must be gathered and understood. This task is easier if the information is codified.

Codified information—for example, specifications that are captured in industry standards and design rules—can often be transferred almost as effectively from one

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company to another as it can within a single company. Because such information is easily duplicated, it has little natural protection. Sometimes bits and pieces can be protected by intellectual property rights, but those pieces, especially trade secrets and patents, are small islands in a broad ocean of knowledge.

Other information does not travel as easily between companies. Tacit knowledge is implicitly grasped or used but has not been fully articulated, such as the knowhow of a master craftsman or the ingrained perspectives of a specific company or work unit. Because such knowledge is deeply embedded in individuals or companies, it tends to diffuse slowly, and only with effort and the transfer of people. Established companies can protect the tacit knowledge they hold, sharing only codified information. They can be quite strategic about what they disclose and when they disclose it.

Coordinating a systemic innovation is particularly difficult when industry standards do not exist and must be pioneered. In such instances, virtual organizations are likely to run into strategic problems. Consider how technical standards emerge. Market participants weigh many competing technologies and eventually rally around one of them. There are winners and losers among the contestants, and potential losers can try to undermine the front-runner or to fragment the standard by promoting a rival. Until a clear winner emerges, customers may choose to sit on the sidelines rather than risk making the wrong choice.

By virtue of its size and scope, an integrated company may be able to advance a new standard simply by choosing to adopt a particular technology. If a large company commits itself to one of a host of competing technologies, consumers as well as companies promoting rival technologies will probably be persuaded to follow suit. Virtual companies, however, which may be struggling to resolve conflicts within their networks, will not be able to break a deadlock in a complicated standards battle. Players in a network will not be able to coordinate themselves to act like a large company.

Once a new standard has been established, virtual organizations can manage further innovation quite well. But when an industry begins to advance technology to a new level, the cycle can begin anew. Again, technically feasible choices present new strategic trade-offs. Suppliers, competitors, and customers may fail to agree on a common path. Unless a big player emerges to break the logjam among rival technologies, the existing standard will prevail long past its usefulness.

Today computer floppy disks are frozen in an old standard because no single company has been able to establish a new one. IBM pioneered the 3.5-inch hardcase diskette in 1987 when it introduced its new line of PS/2 personal computers. Within two years, the memory capacity of 3.5-inch diskettes doubled from 720 kilobytes to 1.44 megabytes, where it remained for quite sometime.

Why? The technical capability to expand diskette capacity was available, but no company had the reputation and strength to set a new standard. Throughout

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the 1980s, IBM was large enough to coordinate standards among the key participants in the industry: personal computer manufacturers, diskette makers, and software publishers. If IBM told the industry it would use a particular capacity on its next generation of machines, others did the same. But in the 1990s, IBM's leadership of the PC market came to an end, perhaps permanently. Today IBM is not strong enough to move the industry by itself, and it will not move ahead of the other industry players and risk being stranded if they do not follow.

A simple rule of thumb applies: when innovation depends on a series of interdependent innovations—that is, when innovation is systemic—independent companies will not usually be able to coordinate themselves to knit those innovations together. Scale, integration, and market leadership maybe required to establish and then to advance standards in an industry.

6.5.13 Choosing the Right Organizational Form

Today few companies can afford to develop internally all the technologies that might provide an advantage in the future. Not surprisingly, there is a mix of approaches: some technologies are 'purchased' from other companies; others are acquired through licenses,

partnerships, and alliances; and still other critical technologies are developed internally. Getting the right balance is crucial, as IBM's experience in PCs illustrates. But what constitutes the right balance?

Consider how a successful innovator such as Motorola (or Nokia) should evaluate the trade-offs. Motorola, a leader in wireless communications technology, has declared its long-term goal to be the delivery of 'untethered communication'—namely, communication anytime, anywhere, without the need for wires, power cords, or other constraints. In order to achieve that goal, Motorola must make important decisions about where and how to advance the required technologies. Those decisions turn on a handful of questions: is the technology systemic or likely to become systemic in the future? What capabilities exist in-house and in the current supplier base? When will required technologies become available?

For Motorola, battery technology is critical because it determines the functionality that can be built into a handheld communications device and the length of time that the device can be used before recharging. Batteries have been a pacing technology in this area for many years.

As Motorola scans the horizon for improved battery technology, it encounters a familiar trade-off between the degree of technological advancement and the number of reliable volume suppliers. Conventional battery technologies such as nickel cadmium (Ni-Cd) have become commodities, and there are many suppliers. But few if any suppliers can offer the more advanced technologies Motorola needs.

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And the most exotic technologies, such as fuel cells and solid-state energy sources, are not yet commercially viable from any supplier. How should Motorola organize to obtain each of the technologies it might need? Under what circumstances should the company buy the technology from a supplier and when should it form alliances or joint ventures? When should Motorola commit to internal development of the technology?

Consider the challenge faced by Motorola. For Ni-Cd technology, the clear choice for Motorola is to buy the technology, or to use the market to coordinate access to this technology, because Motorola can rely on competition among many qualified suppliers to deliver what it wants, when needed, for a competitive price. Motorola faces a more complex decision for fuel cells and solid-state battery technologies. Should Motorola wait until those technologies are more widely available, or should the company opt for a joint venture or internal development?

Before deciding to wait for cutting-edge battery technologies to be developed, Motorola must consider three issues. One is that Motorola could lose the ability to influence the direction of the technology; the early commercial forms may be designed for applications that do not benefit Motorola, such as electric automobiles. The second problem is that Motorola might lose the ability to pace the technology, to bring it to market at a competitively desirable time. The third issue is that if such technologies are—or become—systemic and Motorola has no control over them, the company may not be able to advance related technologies and design features to achieve its goal of untethered communication.

Those issues suggest that Motorola cannot simply wait for the technologies to be provided by the market. Rather, Motorola needs to build strong ties to suppliers with the best capabilities, thus increasing its ability to direct the path of future systemic innovation. Where Motorola itself has strong capabilities, the company should pursue the technologies on its own (see Figure 6.9).

To retain its leadership over the long term, Motorola must continue to develop the critical parts of its value chain internally and acquire less-critical technologies from the market or through alliances. Although networks with their high-powered incentives may be effective over the short term for an unchanging technology, they will not adapt well over the long term as technology develops and companies must depend on certain internal capabilities to keep up. The popularity of networked companies and decentralization arises, in part, from observations over a time horizon that is far too short.

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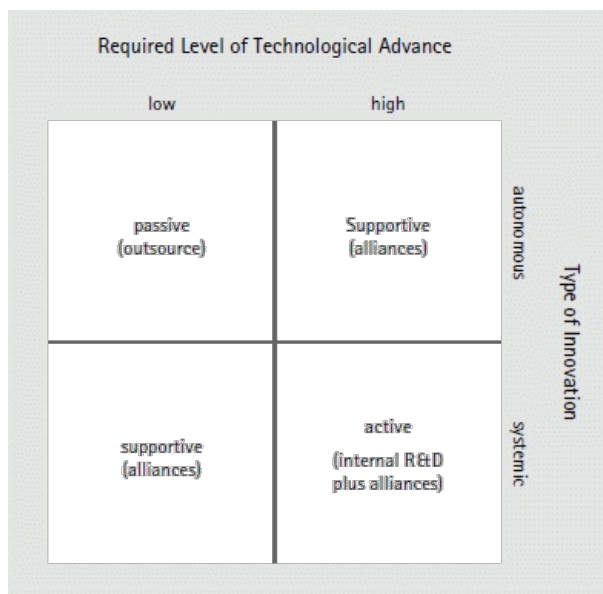


Fig. 6.9 Technological advance and type of innovation

6.5.14 The Cost of Adopting the Wrong Market Entry Strategy

As we have seen, smart strategies may not guarantee success. However, wrong strategies can make things much worse:

1. If an innovator chooses to integrate when it should have outsourced (or not even have entered the game), it will certainly commit more resources than needed for no additional strategic benefit. Furthermore, if integration takes the form of building extra capacity in specialized assets, it may lead to industry overcapacity and, hence, may depress overall industry profitability unnecessarily.
2. Conversely, if the innovator outsources when it should integrate (e.g. to a 'monopoly' supplier), it may never get into the game because an imitator (or the 'monopoly' supplier) may cut the innovator out. Even if this does not happen, the asset supplier will always be in a position to extract maximum benefits from the innovator wherever the contract fails to take account of new situations that may arise.

Access to capital can often play a role in causing innovators to fall into these traps. Large established firms with strong cash positions have a tendency to

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integrate where there is no strategic advantage to doing so, while undercapitalized start-ups are notorious for attempting to use collaborative arrangements riddled with strategic hazards. A common defense in the latter instance is to point out that undercapitalized firms have few options, but there is always the option not to enter at all if the new entrant's strategic base is too weak. Nevertheless, some firms occasionally succeed with non-optimal strategies. When they do, it is primarily because of luck. Similarly, well-positioned firms may have a run of bad luck which puts them out of the game.

6.5.15 Conclusions

We can now see very clearly why EMI failed, despite EMI having created an order-of-magnitude technological breakthrough. The scanner which EMI developed was of a technical sophistication much higher than would normally be found in a hospital, requiring a high level of training, support, and servicing. EMI had none of the requisite complementary assets and capabilities, could not easily contract for them, and appears to have been slow to realize their importance. EMI was also bereft of the relevant manufacturing capability and, while the market was in North America, EMI was located in the United Kingdom. It most probably could have formed a partnership with a company like Siemens to access the requisite capabilities. Its failure to do so was a strategic error compounded by the very limited intellectual property protection which the law afforded to the scanner. Although subsequent court decisions upheld some of EMI's patent claims, once the product was in the market it could be reverse engineered and its essential features copied. Two competitors, GE and Technicare, already possessed the complementary capabilities that the scanner required, and they were also technologically capable. In addition, both were experienced marketers of medical equipment, and had reputations for quality, reliability, and service. GE and Technicare were thus able to commit their R&D resources to developing a competitive scanner, borrowing ideas from EMI's scanner, which they undoubtedly had access to through cooperative hospitals, and improving on it where they could while they rushed to market. GE began taking orders in

1976 and soon after made inroads to EMI.

By 1978, EMI had lost market share leadership to Technicare, who was in turn quickly overtaken by GE.⁷

⁷ In 1977 concern for rising health-care costs caused the Carter Administration to introduce 'certificate of need' regulation, which required Health, Education and Welfare department approval on expenditures on big ticket items like CAT scanners. This severely cut the size of the available market.

In October 1979 Godfrey Hounsfield of EMI shared the Nobel Prize for invention of the CAT scanner. Despite this honor, and the public

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recognition of EMI's role in bringing this medical breakthrough to the world, the collapse of its scanner business forced EMI in the same year to merge with Thorn Electrical Industries, Ltd. GE subsequently acquired what was EMI's scanner business from Thorn for what amounted to a pittance (*Business Week* 1980). Though royalties continued to flow to EMI, the company had failed to capture a recognizable share of the profits generated by the innovation it had pioneered and successfully commercialized.

If EMI illustrates how a company with outstanding technology and an excellent product can fail to profit from innovation while the imitators succeeded, the story of the IBM PC indicates how a new product representing a very modest technological advance can yield remarkable returns to the developer, at least for a while. (Success in one round of innovation rarely guarantees success in the next.)

As noted earlier, the IBM PC, introduced in 1981, was a success despite the fact that the architecture was rather ordinary. Philip Estridge's design team in Boca Raton, Florida, decided to use existing technology to produce a solid, reliable machine rather than one which was state-of-the-art. With a one-year mandate to develop a PC, Estridge's team could do little else. However, the IBM PC did use what, at the time, was a new 16-bit microprocessor (the Intel 8088) and a new disk operating system (DOS) adapted for IBM by Microsoft. Other than the microprocessor and the operating system, the IBM PC incorporated existing micro 'standards' and used off-the-shelf parts from outside vendors.

The key to the PC's initial success was not the technology. It was the set of complementary assets which IBM either had or quickly and skillfully assembled around the PC. In order to expand the market for PCs, there was a clear need for an expandable, flexible microcomputer system with extensive applications software. IBM could have based its PC system on its own patented hardware and copyrighted software. Instead, IBM adopted what might be called an 'induced contractual' approach. By adopting an open system architecture, as Apple had done, and by making the operating system information publicly available, a spectacular output of third party software was induced. IBM estimated that by mid-1983, at least 3,000 hardware and software products were available for the PC (Gens and Christensen 1983). Put differently, IBM orchestrated the complementary assets, particularly software, required for success without even using contracts, let alone integration. This was despite the fact that the software developers were creating assets that were in part co-specialized to the IBM PC, at least in the first instance.

A number of special factors made this seem a reasonable risk to the software writers. A critical one was IBM's name and commitment to the project. The reputation behind the letters, I, B, M, was perhaps the greatest co-specialized asset the company possessed. The name implied that the product would be marketed and serviced in the IBM tradition to business customers. It guaranteed the PC-DOS

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would become an industry standard, so that the software business would not be solely dependent on IBM. It guaranteed access to retailer distribution outlets on competitive terms. The consequence was that IBM was able to take a product which represented at best a modest technological accomplishment and turn it into a commercial success. The case demonstrates the role that complementary assets play in determining outcomes.

The lessons for management are as follows:

1. The probability of successful commercialization can be analyzed rationally in advance—focus R&D on delivering innovations which will have a good chance of benefiting you rather than your competitors.
2. In the early design phase, stay particularly close to the market and keep options open. Try to get your design accepted as the industry standard, but be flexible enough to adapt if some other standard is adopted. If you are an Internet company, endeavor to expand your user base rapidly. Become the leading site to visit for the application.
3. Identify the relevant specialized complementary assets early, and decide in advance whether you can contract for their use, or need to start integrating to control them.
4. Monitor your competitors, and recognize that your toughest competitor may not be an imitator but someone who owns important complementary assets.
5. Foreign rivals may use their government to deny you access to the complementary assets that are needed to successfully enter a foreign market. This will be unfortunate, particularly if the foreign firms are free to enter your domestic market.

6. If, like EMI, you develop an order-of-magnitude innovation which will probably lose your money to exploit, find a strategic partner or sell the idea out—before committing further resources you will not be able to recover.
7. Strength in one area of technology will not necessarily compensate for weaknesses elsewhere. As technology becomes more public and less proprietary, dynamic capabilities, strength in manufacturing, and other capabilities are necessary to derive advantage from whatever technology an innovator may possess.

These lessons are particularly pertinent to small, science-based companies. Founders with superb technical backgrounds are often slow to learn that generating advanced products and processes which meet a clear market need is not enough to guarantee success. Even with a terrific product, the innovator is likely to lose unless it is lucky enough or shrewd enough to create strong appropriability, and be strategically well positioned with respect to key complementary assets. Needless to say, many science-based firms, after a shaky start, soon recognize these principles and adjust their strategies accordingly.

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References

Business Week (1980). 'GE Gobbles a Rival in CT Scanners.' *Business Week*, 19 May 1980.

Clark, K. B. (1985). 'The Interaction of Design Hierarchies and Market Concepts in Technological Evolution'. *Research Policy*, 14: 235–51. [Link](#)

De Figueiredo, J., and Teece, D. J. (1996). 'Mitigating Procurement Hazards in the Context of Innovation'. *Industrial and Corporate Change*, 5/2: 537–60.

Gens, F. C., and Christensen, C. (1983). 'Could 1,000,000 IBM PC Users Be Wrong?'. *Byte*, 9/8 (Nov.): 248.

Gomes-Casseres, B. (1994). 'Group versus Group: How Alliance Networks Compete'. *Harvard Business Review*, July–Aug.: 62–74.

Levin, R., Klevorick, A., Nelson, R., and Winter, S. (1987). 'Appropriating the Returns from Industrial R'. *Brookings Papers on Economic Activity*, 3: 783–820.

Lippman, S. A., and Rumelt, R. P. (1992). 'Demand Uncertainty and Investment in Industry-Specific Capital'. *Industrial and Corporate Change*, 1/1: 235–62. [Link](#) [OUP Resource](#)

Mansfield, E. (1985). 'How Rapidly Does New Industrial Technology Leak Out?'. *Journal of Industrial Economics*, 34/2: 217–23. [Link](#)

— Schwartz, M., and Wagner, S. (1981). 'Imitation Costs and Patents: An Empirical Study'. *Economic Journal*, 91/364: 907–18. [Link](#)

Martin, M. (1984). *Managing Technological Innovation and Entrepreneurship*. Reston, Va.: Reston Publishing Company.

Shannon, C. E., and Weaver, W. (1949). *The Mathematical Theory of Communication*. Chicago: University of Chicago Press.

Teece, D. J. (1977). 'Technology Transfer by Multinational Firms: The Resource Cost of Transferring Technological Know-how'. *Economic Journal*, 87: 242–61. [Link](#)

— (1981). 'The Market for Know-how and the Efficient International Transfer of Technology'. *Annals of the Academy of Political and Social Science*, Nov.: 81–96.

— Pisano, G., and Shuen, A. (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18/7: 509–33. [Link](#)

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7 Strategy and Valuation

Peter Johnson

7.1 The Relevance of Valuation to Strategy

THE objectives of this chapter are to explain the relevance of financial theory and valuation to strategy formulation, to describe the major developments in valuation techniques and to comment on their relative strengths and weaknesses, and to present elements of a new valuation framework, together with recent empirical results, that overcome many of the problems associated with traditional methods.

Some strategists believe that strategy is a different discipline separate from finance and valuation. Notions of strategy are proposed which are concerned primarily with positioning or outmanoeuvring rivals. We are able to judge a good from a bad strategy in terms of its coherence (whether all elements of the strategy reinforce each other and are aligned to a shared goal) and consistency (internally, between elements of the strategy and resource constraints, and externally in a compelling and complete understanding of competitor and market dynamics). But is this enough? My experience as a strategy consultant suggests not.

Business is about making money, and any strategic decision must ultimately be described in terms of a set of likely financial consequences for the organization that can be gauged. Whether the consequences are oriented towards shareholders or

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employees is beside the point. Strategy without numbers is like flying without instruments.

A number of articles have appeared over the years aiming to diffuse the apparent conflict between finance and strategy ('CFOs and Strategists: Forging a Common Framework', Rappaport (1992); 'Must Finance and Strategy Clash?', Barwise, Marsh, and Wensley (1989)). For the practising strategy consultant, or corporate strategist, it is hard to understand how these two sets of considerations could ever be held to diverge. What is the purpose of strategy if not to make money?

From a more academic perspective, the inseparability of finance from strategy is a clear consequence of the resource-based view of the firm. Money is one of the most important resources a firm has. How this resource is applied and augmented is a critical determinant of corporate success. Each year the financial outturn will increase or decrease the financial resources available to a company, directly affecting the degrees of strategic freedom the company enjoys in the following year. This means strategy formulation requires the articulation of the financial consequences of resource allocation decisions. Funds provide access to other resources: people, IPR, distribution. There is a basic inconsistency between believing both in the resource-based view of the firm, and the separability of strategy and finance.

In practice financial considerations, typically summarized by a value such as Net Present Value, are embedded at the heart of strategy proposals, together with questions of funding, tax, and shareholder consequences. The process is often lengthy and iterative, as strategic and financial outcomes and assumptions are reassessed, modified, and optimized. Risks and uncertainties are also evaluated, and incorporated in the discounting of future returns.

Ideally, strategic options should be compared along three dimensions (assuming all the options are available to the current organization): magnitude, return, and risk. The sloped line represents the organization's trade-off of risk and return (see Figure 7.1). Strategic option A creates the largest expected value, but offers an insufficient rate of return for the risk incurred. Both options B and C compensate more than adequately for risk. B creates more value than C, but is at a shorter orthogonal distance from the trade-offline (smaller residual rates of return after attaining the threshold required rate of return as set by the trade-off line). The choice between B and C might be determined by considerations of the value created per pound of initial investment. Other factors (human, political, and organizational) will affect the choice.

This framework may be applied to both the resource-based and portfolio-based (Grant 1996; McKinsey, Boston Consulting Group). It is largely irrelevant to other institutional, process, and ecological models of strategy (Mintzberg 1994; Whittington 1993). In the remainder of this chapter, we will restrict the discussion to the former, strongly rationalist models which dominate daily corporate decisionmaking.

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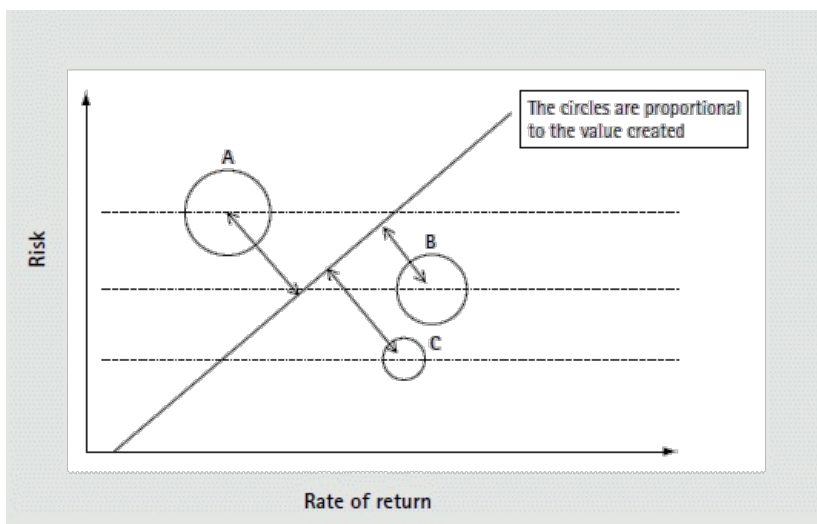


Fig. 7.1 Evaluation framework for strategic options

While the framework is simple and elegant, it masks the deep complexities associated with the determinations of risk, rates of return, value, trade-offs, and portfolio effects. Since this chapter is short, and its scope introductory, we will focus more on value. Readers interested in these other areas will do well to consult general finance textbooks (Brealey and Myers 1996; Copeland and Weston 1992) as well as the work of specialists (e.g. Elton and Gruber 1995). One observation on risk, however: little care is taken in finance or strategy to distinguish between risk and uncertainty. A useful distinction, highlighted by Knight (1933), can be made between these two notions: risk is captured by the distribution of future outcomes as the result of endogenous decisions and the action of exogenous factors. This distribution of outcomes might, for instance, be described in terms of statistical measures such as the mean and variance of a given set of outcomes. Uncertainty might then be taken to measure the variability in the estimates of these statistical measures of the distribution of outcomes. In principle, uncertainty can be reduced to as small a level as we like—often strategy consultants use scenario modelling to reduce uncertainty. Risk cannot be reduced, however, but it may be spread over a portfolio of risky projects. To make this clear, consider a die. The distribution of outcomes is known almost precisely, so uncertainty is minimal, but the risk associated with alternative outcomes is a constant. If in doubt, ask yourself whether you would prefer to possess one pound in cash or a ticket which allows you to participate in a game of prediction, where you win six pounds if you correctly predict the next throw of the die. Most people would prefer the pound. (If you preferred the ticket, stay away from casinos.)

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In applying the strategy evaluation framework, the risk axis does not include compensation for uncertainty. Instead, uncertainty is handled through scenario construction as described later in the chapter. Let us turn to how to measure the value created by a strategy.

7.2 Traditional Methods of Strategy Valuation

Box 7.1 The case of Orange

It might be argued that managers, banks, and financial analysts are altogether familiar with the weaknesses of discounted cash flow (DCF) methods. This is not the case. In an article in the *Financial Times* preceding the Orange flotation, a clear account was given of how the more sophisticated practitioners think.

Table 7.1 Orange network: discounted cash flow valuation using 14% discount rate

Year-end Dec.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
EBITDA £m	—20	—154	16	165	323	400	574	651	723	789	850
Net profit £m	—198	—224	—180	—50	91	246	263	335	404	469	530
Cash £m	0	0	0	0	0	0	217	463	532	598	662
Year		1	2	3	4	5	6	7	8	9	10
Present value		0	0	0	0	0	99	185	186	184	178
Present value of total cash flows											
2005 EBITDA											£0.9bn
EBITDA multiple											£0.8bn
P/E equivalent multiple											×8
2005 value of post-2005 earnings											×5
											£6.8bn

Present value of above	£1.8bn
Implied value	£2.7bn
Value of non-network operations	£0.1 bn
Implied equity value	£2.8bn

Source: *Financial Times* 1996.

EBITDA is earnings before interest, tax, depreciation, and amortization.

Looking at these figures, it follows that almost two-thirds of the anticipated equity value relates to events more than ten years away in a business characterized by rapid development of technology and global restructuring. It is hard to place much confidence in these sorts of estimates: look at the value of the subsequent Mannesmann acquisition of Orange (£18 bn) and the estimates of the likely disposal by Vodafone (above £20 bn) to see how poor they were.

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7.2.1 Traditional Investment Measures

Until the 1960s, the vast majority of strategic investment decisions were predicated upon an evaluation of the likely return on investment and the period by the end of which the investment would pay for itself (payback).

These measures are flawed. Payback does not take account of the time-value of money, and leads managers to discard projects with a relatively lengthy payback period in favour of projects with a short payback period even if the lengthy project was likely to enhance shareholder value much more substantially. Even when adjusted for timing, payback continues to be an inferior measure of performance because it ignores all the value created after the initial investment has been repaid. A further difficulty arises because projects with the same payback period cannot be ranked relatively using this measure (Brealey and Myers 1996).

Return on investment (ROI) measures are also problematic. The results are highly dependent upon accounting conventions, producing differing annual values for projects producing the same economic return (for a systematic review of the impact of accounting policy, see Edwards, Kay, and Mayer 1987). These difficulties can be overcome in the case of a single project with known cash flows over a finite life, but otherwise there is no general method for relating accounting returns to discounted cash flows. Averaging accounting returns over a number of years produces anomalous results which fail to capture the time value of money. To complete an ROI evaluation, the results also need to be contrasted with some benchmark ROI value, which is often based on historic levels of return, and captures miserably the opportunity cost of investment.

Often financial managers will calculate instead the internal rate of return (IRR) for an investment. When carried out carefully, this method of assessing projects will coincide with net present value, but occasionally IRR will be misleading because of (i) more than one possible IRR values for a given set of cash flows, (ii) hidden assumptions about the lending and reinvestment of surplus funds, and (iii) IRRs emphasis on the rate rather than the absolute magnitude of return.

The preferred method of valuation taught at business schools around the world is net present value (NPV). This measure takes account of the time-value of money and opportunity costs. It is also additive for a series of investments. Relative to the other measures, it is clearly superior and produces helpful answers in the case of

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simple, short-lived, and well-defined investment projects. Unfortunately, choices of strategy seldom have these characteristics.

7.2.2 Deficiencies in Discounted Cash Flow Methods

When strategies are assessed according to their present values, future cash flow streams are discounted at a rate which compensates for both the time-value of money and for the 'risk' (uncertainty and risk) involved. This is the discounted cash flow (DCF) method.

Experience has shown that significant problems occur in DCF forecasts of value for strategic options (for a rose-tinted account, see Copeland, Roller, and Murrin 1995). These problems include:

- predicting events that are many years away
- sensitivity to the length of the event horizon considered
- sensitivity to terminal value assumptions
- sensitivity to discount rate choices
- insulation from external events

- failure to incorporate credibly likely management action
- failure to square with the actual value of transactions.

To illustrate these shortcomings, consider the case of a hypothetical engineering company XYZ serving a market that has a five-year product replacement cycle. Assume that XYZ increases its market share from 8 per cent to 15 per cent in a static market with no volume growth. Let unit prices and costs be subject to 70 per cent experience effects. Assume that indirect costs are semi-variable, and that XYZ enjoys a typical set of asset to sales ratios for working capital and fixed assets. Figure 7.2 depicts the sales and profit evolution of XYZ. Figures 7.3 and 7.4 show how the present value of XYZ's cash flows vary depending upon how many years we explicitly model the company's development before taking a terminal value, depending upon the discount choice of 7 or 9 per cent, and whether we use an annuity-based or price-earnings-based methodology (where the multiple varies according to the future growth prospects of the company) for terminal values.

Although the use of a p.e. -based terminal value smooths the variation in possible values, this is not a panacea. What justifies the p.e. ratio chosen, and if we can justify the p.e. ratio, why bother with the DCF after all?

Besides these internally oriented difficulties, other subtler assumptions are often made. It is usually assumed that ownership is constant; DCF often overlooks strategic degrees of freedom created by good performance, or constraints imposed by short-term disappointments. More sophisticated modellers attempt to address some of these weaknesses by blitzing us with a myriad of scenarios. The trouble is that when the business is heading south at a rate of knots, 'management by

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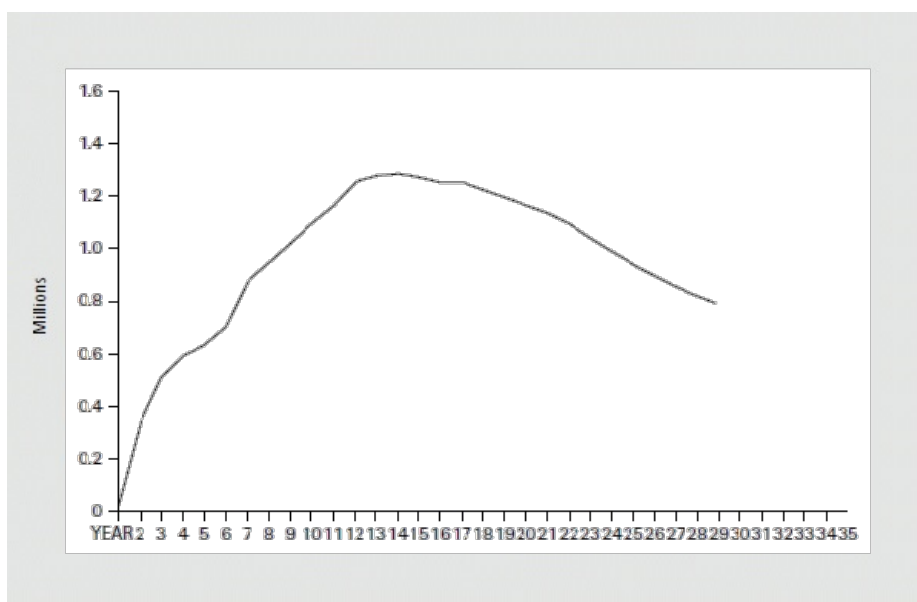


Fig. 7.2a XYZ Engineering Ltd: Sales

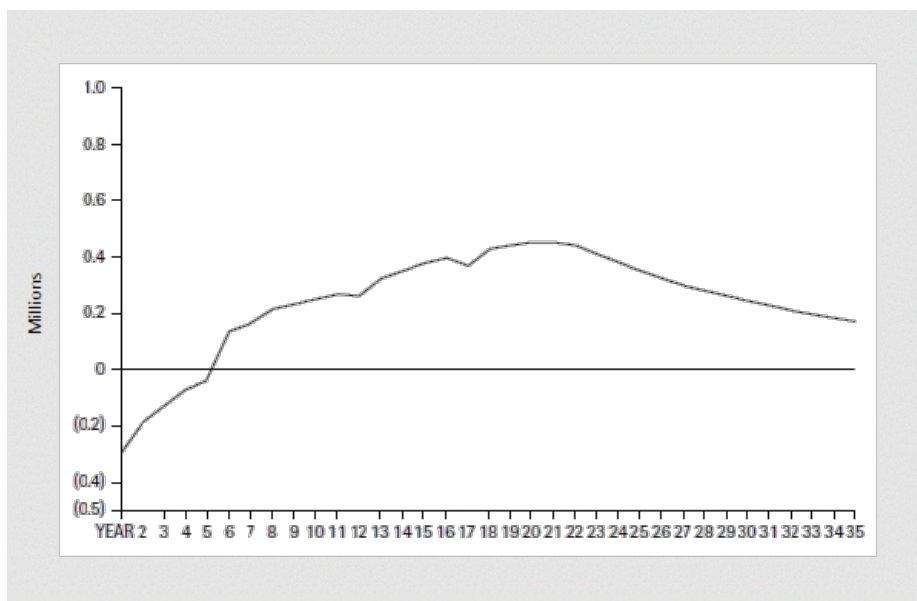


Fig. 7.2b XYZ Engineering Ltd: PBIT

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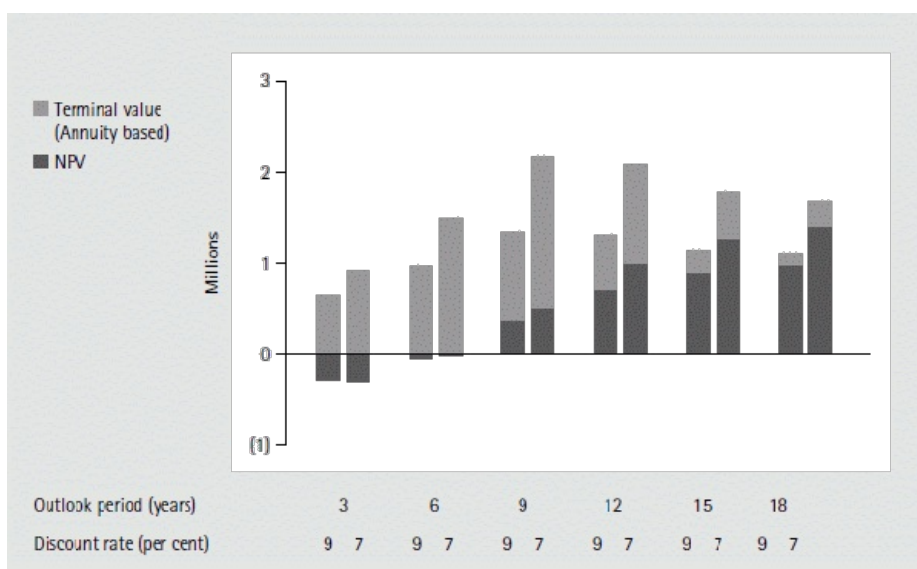


Fig. 7.3 XYZ Engineering Ltd: Valuation, annuity based

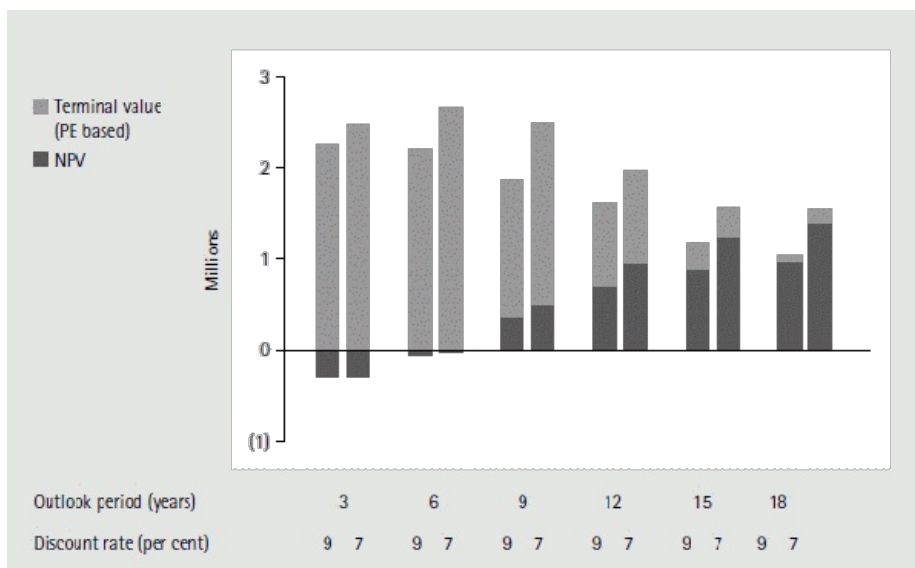


Fig. 7.4 XYZ Engineering Ltd: Valuation, PE based

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auto-pilot' does nothing to correct the situation. Real options may be grafted on, but who can claim to do anything but cherry pick the options that are most expedient? If these difficulties were not enough, how are we to incorporate the long-term effects of government policy and other macro factors?

Box 7.2 Fama and French sum up the situation

Project valuation is central to the success of any firm. Our message is that the task is beset with massive uncertainty. The question then is whether there is an approach that values projects with less error than its competitors. Is the net-present-value approach, advocated with zeal by textbooks, typically more accurate than a less complicated approach like payback? And how would one tell? Our guess is that whatever the formal approach two of the most ubiquitous tools in capital budgeting are a wing and a prayer, and serendipity is an important force in outcomes.

7.3 Enhancements to Discounted Cash Flow Methods

If we accept that the problems with DCF cannot be brushed under the carpet, what can we do to overcome them? In recent years, the use of value-based planning systems among large corporations has increased significantly. Common to these approaches is the notion of a value-creating spread, where returns in a business exceed the returns required and expected by investors. Positive spreads result in increases in stock market value. These spreads are known as excess or residual returns.

Much of the groundwork for this approach was laid by Fruhan in his book *Financial Strategy*, where he described under what circumstances firms are likely to become a Hall of Fame firm. Fruhan looked at the return on equity of all US non-financial companies, and showed that the most highly valued companies generated returns in excess of the required rates of investors predicted by the capital asset pricing model. He summarized his conclusions succinctly: 'Managers who are successful in either shaping or simply taking advantage of the competitive environment so as to earn returns in excess of their capital costs create enormous wealth for their shareholders' (Fruhan 1979: 42). He explained this phenomenon in terms of a simple economic valuation model, which showed how the ratio of the market to book value changes for a company as a function of the size of the spread it enjoyed, the number of

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years the spread lasted, and the rate of growth of the company (determined by the level of retention of profits). Typical results are reproduced in Figure 7.5.

Fruhan went on to explain how spreads are grounded in microeconomic structure in terms of entry barriers building on the work of Bain (1959), Porter (1980), and others. In terms of barriers, he identified unique products, scale economies,

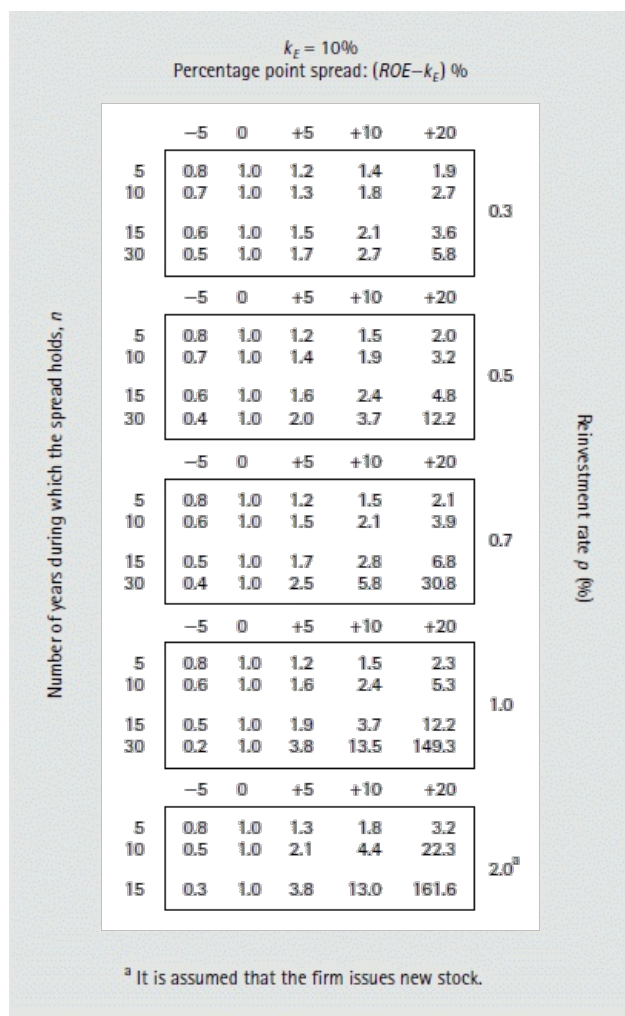


Fig. 7.5 Sensitivity of the M/B model for different combinations of parameters (model with stationary growth over a finite horizon)

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absolute cost advantages, and capital requirements. Furthermore, high-spread companies focused on a narrow number of product lines. It is also noteworthy that Fruhan questioned the large cash balances held by companies, and their likely difficulty in sustaining valuation multiples, that anticipated the LBO restructuring of the 1980s.

If Fruhan is held to be the early pioneer of residual returns, it is Rappaport (1986) who made them familiar to the board room. His key insight was how to operationalize the notions of spread as a threshold operating margin after taking account of working capital and capital expenditures. In doing this he was much aided by the development of PC-based software, which allowed real time modelling of businesses including the anticipated impact of management action on the creation or destruction of value. Typical inputs for the modelling are sales, margins, and investment over the period when a positive spread is earned. Sensitivity analysis could easily be carried out: for example, the extra growth in sales required to produce the same strategy value for different levels of spread. The impact of capital efficiencies was immediately evident, and Rappaport's approach provided a good way of looking at the critical operational drivers of value creation. Managers were required to take an integrated perspective on operations, considering both the profit and loss and balance sheet implications when planning a course of action. Managers were also able to examine explicitly the stock market's expectations of residual returns compounded in the current stock price relative to the likely level of residual returns in the business. Unfortunately, although we need only consider the period when residual returns are positive, this is often a lengthy period and Rappaport's approach ultimately suffers the same fate as DCF—large variations in conclusions can be produced from small changes in input values. Rappaport's ALCAR software simply takes the pain out of calculation.

Threshold thinking has perhaps been developed to its extreme by the consulting firms Marakon and CVA. Since the early 1980s, they have evangelized the relevance of threshold notions to strategy formulation. Figure 7.6 shows an example of threshold thinking taken from Marakon's early company literature. Aware of the intractable difficulties in determining robust and reliable values for strategies, Marakon and CVA have focused on the use of threshold margins as a diagnostic technique for illuminating strategy choices. Rather like General Electric, McKinsey, and the Boston Consulting Group, Marakon has developed a portfolio tool to compare and contrast the financial characteristics of different strategies. Strategic options, or existing businesses, are positioned on the matrix depicted in Figure 7.7. The x-axis measures the growth of equity in the strategic option or business (determined by the rate of profit retention and the return on equity); the y-axis looks at book return on equity. If equity growth equals the return on equity (assuming full retention of profits), the strategic option or business will be cash neutral. Either side of the $x = y$ line the strategic option or business will either consume or release cash. Two key values are marked by the dashed lines—the return

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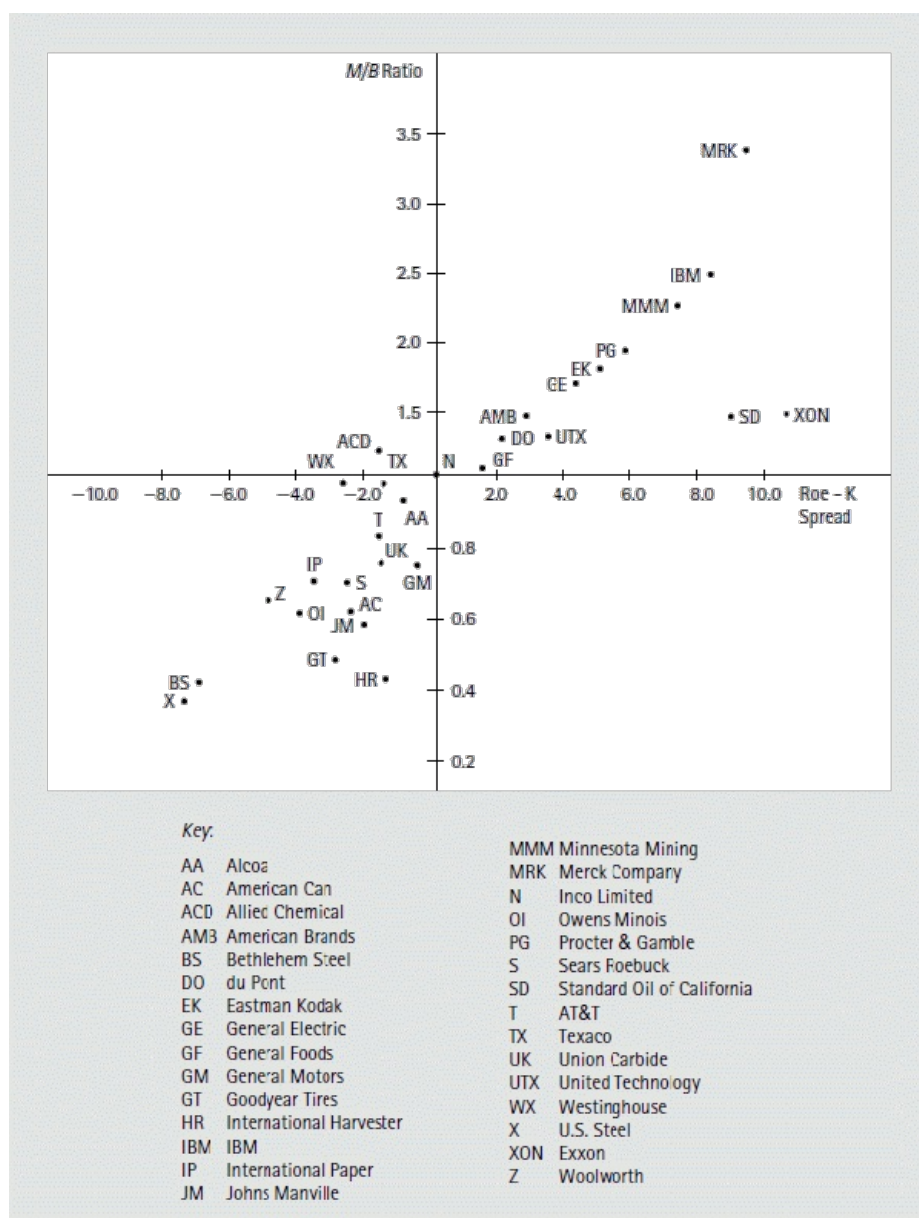


Fig. 7.6 An M/B versus spread graph for the thirty Dow Jones industrials

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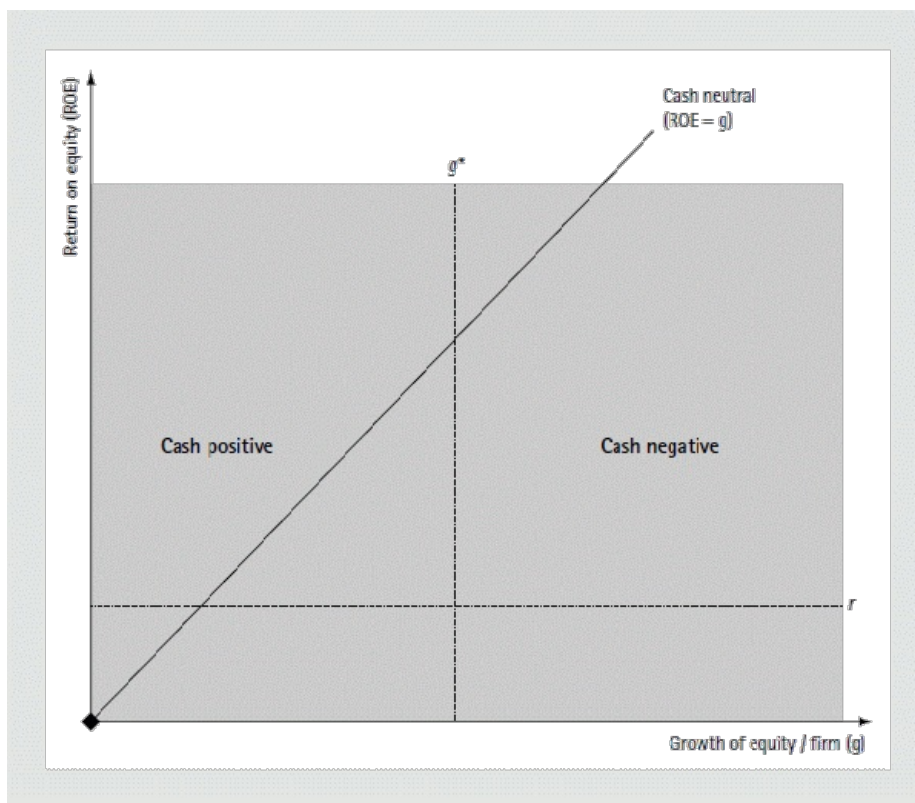


Fig. 7.7 Marakon strategy portfolio

required by investors r , and the growth rate g^* of the product/service market relevant to the strategic option or business. Positions above the horizontal dashed line will create shareholder value; positions below will destroy value. Positions to the left of the vertical dashed line result in the loss of market share; to the right gains in market share occur. Each of the seven possible positions is characterized by spread, cash characteristics, and market share dynamics. Marakon has developed generic responses for these different positions.

This approach is no doubt insightful, but the transfer of this complex set of concepts to managers has been elusive. To the extent that this type of thinking has taken hold, it is through the simpler, more intuitive measure of economic value added (EVA). EVA provides a conceptually impoverished framework relative to that developed by Marakon and CVA, but has the merit of being easily operationalized (most notably by Stern Stewart), providing practical help to managers.

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Before turning to EVA, a brief discussion of real options is in order. Popularized by Dixit and Pindyck (1994), this approach adds the value of real options, such as the option to abandon a strategy, or adopt a strategy at a later date, to the base case DCF analysis. For a popular explanation, see Luehrman (1997).

While this approach initially seems to have merit, further reflection reveals some deep-seated problems. Why should we not add the options to re-enter after abandonment, to pre-empt, to enter later then exit if things start to go wrong? What about the options created by the option to abandon, and do something else? And the option then subsequently to wait, invest, abandon, and to do something entirely different...? Without a rule to guide us in the choice of options, we are at the mercy of the creativity of strategy formulators and risk being mired in a technical bog of anticipated real options values.

In the absence of a general rule (which is likely to be forever elusive), we must fall back on a decision tree analysis to evaluate which real options are of merit. But if we have the decision tree, why do we need the options? The financial arbitrage upon which options pricing rests is none other than DCF—the Black–Scholes formula is merely a combinatorially efficient method for dealing with an infinite number of future share price scenarios, and suffers the same problems of horizon, rate, etc. as DCF in general.

All too often, it seems that real options are introduced for reasons of expediency, but is this really any different from fiddling with the discount rate to achieve a desirable outcome? As with scenario models in general, in spite of the lack of foundation for the particular valuations produced, modelling of real options has heuristic value, but like most innovations in strategic valuation, it represents a slick re-presentation of DCF methods and does nothing to address the inherent flaws of DCF. Committed enthusiasts should nonetheless consult

Dixit and Pindyck in order to be familiar with the details of this re-presentation.

7.4 Economic Value Added

One possible response to the DCF problems is to collapse the time frame for strategic evaluation to that of a single period. This is what occurs with EVA (Economic Value Added) analysis as promoted by Stern Stewart. This approach relies upon the established accounting identity:

$$P_t = y_t - \sum_{\tau=1}^{\infty} E_t [x_{t+\tau}^a R^{-\tau}]$$

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where P_t is the market value of a company at time t , y_t is the book value of the company at time t , x_t^a are residual earnings in period t (essentially the same as what Stern Stewart call EVA), R is 1 plus the cost of capital r . $E_t [Q]$ represents the expected value at time t of variable Q . Residual earnings, i.e. earnings after taking into account investor expectations for returns r on existing capital, are given by:

$$x_t^a = x_t - (R - 1)y_{t-1}$$

where x_t^a are residual earnings in period t , x_t are earnings in period t , R is 1 plus the cost of capital r , and y_{t-1} is the closing book value of the previous period. In plain English, what are we saying?

The first equation says that the market value of the company is equal to its book value plus a goodwill item, which Stern Stewart call Market Value Added (MVA). This MVA term is made up of the sum of earnings in excess of what the market requires on the book value of capital in the business discounted at the investor cost of capital. Stern Stewart call these residual earnings terms, when calculated using Stern Stewart's accounting conventions, Economic Value Added. The second equation describes how these terms are defined.

This approach is very intuitively appealing. It says the value consists of what's in the books plus the goodwill that arises when we make more than investors require on the firm's assets. John Kay has described these residual earnings as profits after a company has paid its keep. Together with colleagues at LBS, Kay pioneered the development of comparative rankings of the goodwill (MVA) created by companies.

Because Stern Stewart's approach makes managers account for capital in their business on a risk-adjusted basis, and because of its simplicity, it has won a large measure of acceptance as a single-period operating measure. Nonetheless, it has problems.

The first is that a single-period residual return (EVA) measure is not necessarily reliable when it comes to maximizing value. If a company always chooses the course of action which maximizes the residual return in the next period, this may lead to the rejection of a strategy which maximizes value over a number of periods. Remember, the first equation involved a summation of residual earnings over (theoretically) an infinite number of periods, not just one. In going from a horizon of ten or more years, to a single year, we seem to have gone too far.

Second, the EVA in any given period is unlikely to equal the total return to shareholders in that period. As O'Hanlon and Peasnell (1998) have shown:

$$\text{Shareholder abnormal return in period } t = x_t^a + (\Delta GW_t - rGW_{t-1})$$

where GW_t is unrecorded goodwill at time t and ΔGW_t is the single-period change in goodwill. The term in brackets is not generally zero, so shareholder return will not normally equal EVA.

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Another problem is that companies systematically generate too many positive residuals. Investors are not stupid, so if nearly all companies earned positive residual returns, investor expectations would change and result in different required rates. Or, you might ask why, when residual returns are nearly always positive, do a large number of companies have a market-to-book ratio of less than one? Asset valuation is only one of a number of accounting problems which each lead to modifications and revisions of accounting data—so much for the simplicity of the approach. But even if the book numbers were right, conceptual problems still remain. How do we treat unrecorded intangibles? How do we treat fluctuating cycles of working capital? To what extent should we look at gross rather than net assets? How should we think about the returns made on the efficient financing of operations?

The latter point is not trivial. The EVA approach conflates questions of economic efficiency with questions of funding. Part of the capital y_t is required to fund working capital because of the operating cycle of the business. This need for capital has nothing to do with the efficiency of the use of resources by the firm in competitive markets. We can imagine hypothetically companies with incredibly rapid financing cycles (say, a single minute), or incredibly long accounting periods (say, a hundred years), where the book value y_t of these companies is zero because the funding of assets is zero. It still makes sense to ask whether these firms have made a good use of resources even though you cannot calculate residual returns and hence EVA.

In the same way that EVA mixes up resources and funding, it might be argued that EVA illogically mixes up past and present economic performance. EVA combines stock variables (assets and balance sheet items) and flows (profit and loss items) into a return measure of economic performance rather than relying entirely upon flows so as to produce an economic margin (or, to use that word again, a spread). For instance, the book value of equity includes not only the money spent in the past buying assets, but also reflects residual earnings elements from supposedly superior performance in the past, which have not been paid out as dividends. The result for EVA is a measure which tries to convey whether a business is using resources efficiently *now* by reference to the resources the business consumed *previously*. Some managers will rightly protest that they do not care about how the business performed in the past; what they want to understand is whether the business is making good economic use of resources it is consuming *right now!* Is there an alternative? Before suggesting a particular line of enquiry (RMA), it might be helpful to step back and think about how we ended up in this fix and whether there is an altogether different valuation paradigm.

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7.5 An Alternative Valuation Paradigm

Given these difficulties, it makes sense to reflect on how they arose. Much of the damage is caused by the infinite discounting formulae used as the basis of valuation:

$$P_t = y_t + \sum_{\tau=1}^{\infty} E_t[x_{t+\tau}^d R^{-\tau}]$$

where P_t is the market value of a company at time t . $E_t[Q]$ represents the expected value at time t of variable Q . This expression states that the value of the company is equal to the sum of discounted future dividends.

We are encouraged to think that the value of a company should be equal to the endless stream of dividends we would receive from a share, discounted at appropriate opportunity costs of capital. Is this valid given that no one has ever held a share for an infinite period? If we hold a share for a finite period, then sell it, we might think of its value today as the dividends we receive plus the value we sell the share for (appropriately discounted). But what is the value of the share at the end of the holding period? Traditional financial theorists will say that a person buying the share at the end of the initial holding period will carry out the same sort of analysis, thinking about interim dividends and the value of the shares at the end of the second period. So the value for the original purchaser will equal the dividends received in the first two holding periods plus the value of the share at the end of the second holding period. Clearly we can continue this analysis for all the subsequent periods. If we follow this logic, we will be led to conclude that the value today is, indeed, the discounted sum of an infinite series of dividends. Although this reasoning might satisfy the financiers, philosophers would regard it as question-begging, rather like justifying induction as a principle on the grounds that this principle has always worked. The assumption that values in the future are determined by an infinitely discounted series of (then) future cash flows cannot be used as an argument when this very assumption of infinite discounting is in question.

It is perfectly possible that the value of the share at the end of the holding period might not reflect the underlying performance of the company over the holding period. But, the traditionalists will say, this can only be a temporary aberration because arbitrage between physical and financial markets will require that ultimately the market value of the company will coincide with its economic value, which is set by the expected infinite stream of remaining dividends. This is not a winning counter-argument to the hold-and-dispose model of valuation: for significant periods physical and financial markets may be decoupled (witness dot.com speculation). Nonetheless, financial markets may remain efficient in the sense that prices correspond accurately to investor expectations, even though these expectations are collectively considered unrealistic by experts.

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We may illustrate what we have in mind with an example. Imagine we sign a fifteen-year contract with the footballer David Beckham, paid in equal instalments, that is to everyone's satisfaction. In a few years time, whether or not the transfer of David Beckham together with his then remaining contract then represents positive or negative value to a new club will depend upon Beckham's performance up to that point. Perhaps a clever reading of the pattern of performance up to that point (that has not been perceived by Beckham's club) will suggest

that early goal-scoring had been worse than originally anticipated, while future performance was likely to be better. This might allow a transfer bid to create positive value. The creation of such a positive value is not at odds with the likelihood that at the end of the fifteen-year period, Beckham's footballing career would be over and that no transfer value would be attached to him—in other words market and economic values are aligned.

If we consider an event horizon of five years for which we can make credible forecasts, the alternative valuation paradigm might be expressed mathematically as follows:

$$P_t = \frac{\text{div}_1}{(1+r)} + \frac{\text{div}_2}{(1+r)^2} + \frac{\text{div}_3}{(1+r)^3} + \frac{\text{div}_4}{(1+r)^4} + \frac{\text{div}_5}{(1+r)^5} + \text{present value of } P_5$$

If we believe that the likely value in five years' time will reflect the performance trajectory up to that point, we may replace the formula above by:

$$P_t = \sum_{i=1}^5 \frac{\text{div}_i}{(1+r)^i} + f(\text{performance years 1 to 5, } r)$$

This means that today's value reflects our particular short-term projections for years 1 to 5, and the likely value investors will attribute to the company in year 5 given the performance trajectory of the company up to that point.

If we adopt the hold-and-dispose model, and search empirically for performance measures which explain how expectations are set, we will be able to develop a valuation method that restricts itself to an horizon that corresponds to management and investor holding periods, without running into the problems that arise from the traditional dividend-discounting paradigm. To get the model to work we need a robust and well-validated strategic measure which provides linkages between economic performance and stock market value. If we can develop such a model, we will be able to value strategies and businesses within a time frame covering the few years relevant to performance assessment, for which we will have reasonably accurate projections. Such a time frame might last three or five years, which coincides well with typical management tenure of a business position. This model will avoid the pitfalls of looking over either too short or too long a period. It will incorporate three distinct features:

- the right performance measure that has foundations in microeconomics and is captured by accounting systems

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- accurate short-term predictions of performance and likely management actions
- empirical validation of the valuation scale for the performance measure.

Given the earlier remarks concerning traditional accounting measures of value, the emphasis on capture of the performance measure by the accounting system may seem misplaced. This is not in fact the case because of the recent rehabilitation of accounting-based measures of performance. Traditionally, for the very reasons stated in Section 7.2, managers, bankers, and markets have been very sceptical concerning definitions of profits and earnings, because of the ease with which they can be manipulated. As a result the focus has been on cash, which is felt to be a matter of fact rather than convention. The clean surplus approach to profits eliminated the effect of these manipulations: the surplus (profit) is given by the change in retained earnings at two different times, adjusted only for capital contributions and dividends, both of which are matters of fact. It can then be shown that:

$$\text{Economic value of the company} = \text{Book value} + \text{Goodwill} = \text{Book value} + \text{Discounted residual returns}$$

Over time, it will not be possible for a company systematically to deliver returns in excess of investor expectations, and hence the economic value of the company will eventually equal the book value. The accounting will catch up and be correct (the mechanism will be through the accumulation of residual returns as retained earnings). For the purposes of business projections over a limited horizon (three to five years), if accounting is done on the basis of market prices and accurate replacement values, accounting measures will be robust and reliable.

We call this alternative approach scenario-based retrospective valuation or, alternatively, the *CV* view of valuation, as opposed to the *crystal ball* view of valuation that DCF represents. We may contrast these views by way of an analogy. Consider the case of employment. In deciding how much to pay a person, theoretically one could calculate, using DCF scenario methods, the financial contribution the employee could be expected to make to the firm over the period of employment. This would require a tremendously detailed set of assumptions and scenarios about clients, wages, profits, etc. In practice we do not do this: besides the effort involved, any answer would be considered very precarious. Instead we analyse the CV of the applicant, paying particular attention to the key elements that might have an impact on remuneration. Implicitly we then compare the performance of the candidate on these key elements to the performance of other personnel for whom we have pay information. In this way we reach a conclusion about the general level of remuneration, which might

be subject to some final negotiation.

In like fashion, the author proposes that companies and strategies be valued through the extraction of measures of historic performance that are salient to valuation. Given that a company or business is on a particular trajectory, we can then ask how such trajectories are valued currently. An understanding of the

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valuation metric for given trajectories will allow us to be able to predict over a sensible horizon, how today's future performance will be valued retrospectively when the future arrives. To see how this would work in practice, consider Figure 7.8.

Scenario modelling would be undertaken to capture the unfolding of different strategies over a credible time horizon (say three to five years, which coincides well with management tenure and investor holding periods). The modelling would show how the strategic performance measure that underpins valuation would evolve over time.

These forecasts are combined with market-based retrospection, which looks at how the stock market actually rewards different levels of performance captured by the strategic measure. This scaling of reward for performance is determined empirically, rather like the Securities Market Line, which shows how risk is rewarded in the Capital Asset Pricing Model. From a knowledge of likely future performance on the selected measure, and a knowledge of how performance is valued, we can determine the future value that will be created by the strategy. The difficult task is determining a suitable performance measure. The next section reveals a promising candidate.

In constructing the scenarios, explicit account must be taken of the interactions between exogenous variables and management actions, including the exercise of real options relating to the further development or retrenchment of the business. The basic business model captured by spreadsheeting will change structurally over time as key milestones and critical events reshape the nature of the business activity.

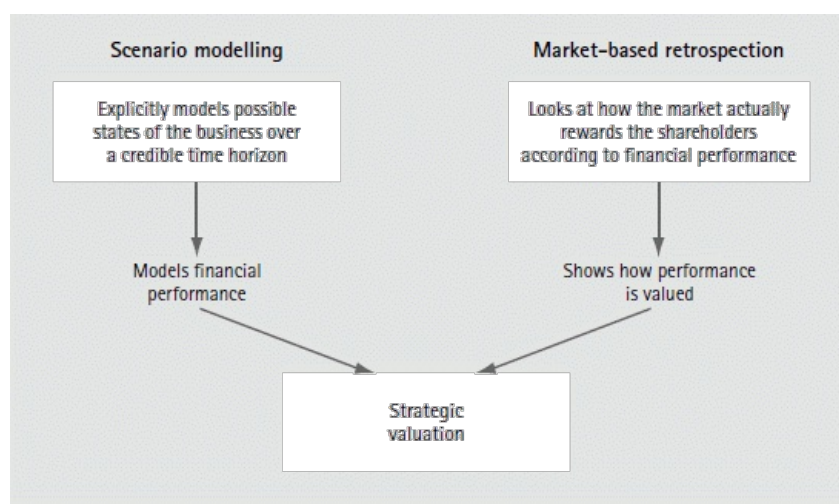


Fig. 7.8 A possible alternative approach is scenario based retrospective valuation (SBRV)

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The proposed valuation paradigm will cut across finance, accounting, microeconomics, and strategy. It would draw together information well-captured by accounting systems that describe the economic use of resources in terms familiar to those who study industrial organization, in a way that is consistent with modern financial theory, and which embraces the concepts of competitive strategy. A possible candidate is resource margin accounting (RMA).

7.6 Resource Margin Accounting

Value-added, often called net output by economists, is an important factor in the determination of competitive success. Normally, value-added is taken to be defined as firm revenues minus the cost of raw materials and purchases. The structure of an industry and how it evolves can be well captured by the analysis of the distribution of value-added between different industry participants and how it shifts over time. Similarly, within what strategy consultants call a *strategic segment* of an industry, or what academics call *mobility groups*,

much competitor activity can be considered to be a struggle to control and safeguard profitable value-added through strategies based upon relative cost position, superior price realization through differentiation, or through technological advantage. Within the firm, value-added corresponds to the resource base which managers control and which they use to implement strategies—it is the platform in which reside core competences. Since the term 'Value-added' is much used, and gives rise to confusion between the value added to the net worth of a company beyond the contribution towards book capital, and value-added as understood by tax authorities and economists, we will prefer to use the term 'resources'. Resource margin accounting (RMA) aims to provide an account of how well resources in a business are being put to work in a framework that extends the resource-based view of the firm.

Two key imperatives for competitive success are to grow the resources of the firm, and to achieve a satisfactory level of return (economic rent) on those resources. We represent the growth of resources for a firm by g_R , and return on resources by RM.

$$\text{Resource margin} = \text{RM} = \frac{\text{Economic Profit}}{\text{Economic Resources Consumed}}$$

This looks like common sense, but what measure do we use for economic profit? We propose to take accounting profit computed on a 'clean surplus' (or 'comprehensive income') basis, such as to contain all changes in book value during the period in question. Using clean surplus allows us to tie together the accounting and cash flow measures used in valuation. Although there may be a difference between

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economic depreciation of the assets and the depreciation recorded in the accounts for any given period, the accounting will eventually catch up with the economics. Since we will be looking at resource margins over a number of years, the effects of this distortion will be mitigated.

This measure of clean surplus divided by net output has distinguished antecedents dating back to Ricardo. Industrial economists in particular have done much research into the consequences of monopolies and oligopolies by looking at the relationships between concentration in an industry and a profitability measure called the 'price-cost-margin' (PCM), which is probably the cousin of RMA. PCM is defined as:

$$\frac{\text{Net output} - \text{employee compensation}}{\text{Net output}}$$

If employee compensation represents a large majority of value-added costs, then the numerator in the above expression will be approximately equal to profit and

$$\text{Resource margin} \approx \text{PCM}$$

The research by economists at an industry level shows the impact of concentration and barriers to entry on profitability (PCM) made familiar to businessmen by Michael Porter's five forces model. A focus on average levels of PCM within an industry is also consistent with the Structure, Conduct, Performance (SCP) model elucidated by Bain (1959) and others. In other words, industrial organization (IO) research has revealed the relevance of resource margins to performance at the level of industries. The valuation framework proposed extends this approach to the level of individual companies.

High levels of resource margin will arise through the erection of competitive barriers defining strategic business segments or what academics call mobility barriers. Within a segment individual firms will enjoy better or worse returns as a function of their ability to sustain a highly efficient use of resources arising from the establishment of a relative competitive advantage. In other words the pursuit of competitive advantage through resource-based strategy will determine resource margins. Valuing strategies then becomes a question of calculating and evaluating resource margins.

Furthermore, growth and profitability in relation to resources accommodate two approaches to business strategy which, while complementary, are often considered to represent opposing views: the resource-based view of the firm as developed by Prahalad and Hamel (1990), and the portfolio-based strategy popularized by General Electric, McKinsey, and the Boston Consulting Group. The performance of a firm depends both upon the structural context in which all competing firms find themselves, and the individual firm's ability to establish a competitive advantage relative to its competitors in that context. The context will determine the magnitude of resources over which firms compete, the growth of those resources, and

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typical levels of profit that may be sustained in relation to those resources. Competitive advantage will determine the profitability and development of resources for the individual firm relative to its competitors.

In other words, the level of RM achieved by a firm will depend upon how well it uses its resources relative to competitors (the resource-based view), as well as the attractiveness of the segments it operates in (the portfolio-based view), and the structure of the industry surrounding these segments (Porter's five forces). Similarly, the ability to generate superior returns in a segment and the attractiveness of segments for new business development will be strongly influenced by the growth of resources. The resource margins approach incorporates the two prevailing perspectives on strategy.

RMA also allows interesting and meaningful comparisons between businesses which have markedly different capital requirements: contrast for example a hotel business, a contract catering business, and a restaurant business. Traditional measures of performance such as return on capital employed or return on sales do not produce meaningful comparisons between these businesses. Hotel businesses show low returns on capital because capital growth through property appreciation is not usually included in profits; restaurants make income on moderate levels of assets; contract catering has paper-thin sales margins, but excellent cash characteristics. The use of resource margins can allow meaningful comparisons to be made (Table 7.2).

It is possible to incorporate resource margins rigorously into a valuation framework that draws upon accounting information and is entirely consistent with financial theory. Results similar to those for EVA are obtainable for RMA:

$$\frac{\text{Market Value}}{\text{Book Value}} = 1 + \frac{r-g}{r} \sum_{\tau=1}^{\infty} \gamma^{-\tau} (RM_{\tau} - r)$$

where g is the rate of growth of resources (i.e. net output, value-added), γ is a discounting factor and RM_{τ} are the resource margins in successive years. In the case of $g = 0$, this simplifies to:

$$\frac{\text{Market Value}}{\text{Book Value}} = 1 + \sum_{\tau=1}^{\infty} R^{-\tau} (RM_{\tau} - r)$$

This equation states that for the idealized firm, the ratio of the market-to-book value of the firm is given by one plus the sum of the discounted spread of the resource margin over the rate of return required by investors. The magnitude of this ratio is determined by the spread and g making explicit the importance of excess resource margins and the growth in resources in the creation of shareholder wealth through competitive advantage.

RMA can be shown to be entirely consistent with EVA, but it avoids some of the conceptual confusion associated with EVA. In particular it provides a means of

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Table 7.2 Measures of performance for hotels, restaurants, and catering businesses

	Capital employed	Return on sales	Return on capital	Resource margins
Hotels	High	High	Low	Satisfactory
Restaurants	Moderate	Moderate	Good	Satisfactory
Catering	Negative	Very small	Nonsensical	Satisfactory

separating the capital tied up in funding a business from the resources used to pursue business strategy. It can be shown that:

$$\text{Market Value} = \frac{rv_{t+1}}{r-g} + v_{t+1} \sum_{\tau=1}^{\infty} \gamma^{-\tau} (RM_{t+\tau} - r) - \frac{g_B}{r-g_B} y_t$$

where g_B is the growth in book value y_t and v_{t+1} is net output (value-added) in period $t + 1$. What this says is that

$$\text{Market Value} = \begin{matrix} \text{normal economic rents} \\ \text{earned on resources} \end{matrix} + \begin{matrix} \text{abnormal returns} \\ \text{on resources} \end{matrix} - \begin{matrix} \text{additional} \\ \text{capital to fund} \\ \text{application of} \\ \text{resources} \end{matrix}$$

In addition, RMA values are not disproportionately positive (as judged by UK and US samples), and many of the accounting revisions needed to compensate for divergences between book and replacement values of assets are avoided by focusing entirely on profit and loss as opposed to balance sheet measures. RMA also avoids the mixing up of past and current elements of performance through the retention of historic spreads in the book value of the firm.

Statistical analysis for companies in the United Kingdom has shown resource margins to be significantly related to market value to resources ratios (M/R).

7.6.1 Testing of the Value Relevance of Resource Margins

Ordinary least squares regressions may be used to investigate the linkages between market value variables and measures of resource margin and growth. Table 7.3 records the descriptive statistics of the variables investigated for a sample of approximately 300 US manufacturing companies between 1983 and 1998 (Johnson 2000b), where RM, M, B, XSRM, RI and NI denote resource margin, market value, book value, excess resource margins (on a clean surplus basis), residual income after deducting a rent for book capital, and net income, respectively.

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As a first step, market-to-book and market-to-resources ratios were regressed against individual regressors to determine their value relevance. Growth refers to growth in resources. The results are shown in Table 7.4.

Table 7.3 Descriptive statistics for value-relevant factors

	Number	Range	Minimum	Maximum	Mean	Std. Dev.
5-year average RM	3,357	2.24	-1.01	1.23	0.1086	0.1108
5-year growth in resources	3,357	352.37	-27.69	324.69	8.8133	11.2002
M/B	3,357	20.27	0.35	20.62	2.2945	1.7715
M/Resources	3,357	28.31	0.12	28.43	2.0768	1.9141
RM	3,357	2.71	-1.10	1.61	0.1119	0.1411
XSRM	3,357	2.79	-1.24	1.55	-0.0385	0.1495
RI/B	3,357	3.57	-1.96	1.61	-0.0308	0.2381
NI/B	3,357	3.19	-1.55	1.65	0.1189	0.1387

Source: Johnson 2000b.

Table 7.4 Regressions of value-relevant factors

Dependent/Independent Variables	AdjR square	F statistic	T statistic	Significance	Coefficient	Durbin-Watson
M/B vs RM	0.110	413.832	20.343	0.000	4.160	0.572
M/B vs XSRM	0.092	343.063	18.522	0.000	3.609	0.542
M/B vs 5-year average RM	0.108	409.181	20.228	0.000	5.274	0.509
M/B vs 5-year Growth	0.028	98.934	9.947	0.000	0.0267	0.469
M/B vs ROE	0.288	1356.564	36.832	0.000	6.854	0.814
M/B vs Residual ROE	0.155	614.894	24.797	0.000	2.928	0.536
M/Resources vs RM	0.295	1404.699	37.479	0.000	7.370	0.811
M/Resources vs XSRM	0.219	944.360	30.730	0.000	6.001	0.677
M/Resources vs 5-year average RM	0.300	1440.857	37.959	0.000	9.473	0.690
M/Resources vs 5-year Growth	0.020	67.991	8.246	0.000	0.0240	0.475
M/Resources vs ROE	0.080	294.304	17.155	0.000	3.920	0.509
M/Resources vs Residual ROE	0.058	208.498	14.439	0.000	1.945	0.457

Source: Johnson 2000b.

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7 Strategy and Valuation

If the normative assumptions that underpin ordinary least squares regression hold good, the analysis shows that resource margin and resource growth are valuerelvant factors not only for market-to-resource ratios, but also for market-to-book ratios. In fact the explanatory power, measured by R-squared, is better for the alternative model (comprising market-to-resource ratio and resource margin), than for the traditional model (market-to-book ratio and return on equity). We call these two models the M/R and the M/B models. It is also noteworthy that resource margins are more relevant to the M/B model than return on equity (ROE) is to the M/R model. The t statistics are of limited significance because of large sample effects. It also noteworthy that the Durbin-Watson statistics do indicate a high level of auto-correlation in the data sample.

Stepwise multivariate regressions were then undertaken first for the market value-to-resource ratio (M/R) model, then the traditional market-to-book value model (M/B). The results for the resource margin model were of considerable significance.

Table 7.5 Regression of value-relevant factors against M/R

Model summary						
Model	R	R square	Adjusted R squan	Std. error of the estimate	Durbin-Watson	
1	.614	.377	.376	1.5119	.797	
ANOVA results						
Model	Sum of squares		df	Mean square	F	Sig.
1	Regression	4639.099	6	773.183338.269	2.286	.000
	Residual	7657.111	3350			
	Total	12296.211	3356			
Coefficients of stepwise regression						
Model	Unstandardized coefficients		Std. error	Standardized coefficients	t	Sig.

1	(Constant)	.971	.070		13.830	.000
	RM	5.300	.458		.391	11.561 .000
	XSRM	-.165	.385		-.013	-.430 .667
	Av RM	5.927	.299		.343	19.825 .000
	5yr Growth	0.007	.002		.043	3.047 .002
	ROE	-1.611	.285		-.117	-5.652 .000
	RESROE	.341	.147		.042	2.316 .021

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Table 7.6 Regression of value-relevant factors against M/B

Model summary							
Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin-Watson		
1	.567	.321	.320	1.4605	.796		
ANOVA results							
Model		Sum of squares	df	Mean square	F	Sig.	
1	Regression		3385.728	6	564.288	264.534	.000
	Residual		7146.020	3350	2.133		
	Total		10531.748	3356			
Coefficients of stepwise regression							
Model		Unstandardized coefficients	Std. error	Standardized coefficients	t	Sig.	
1	(Constant)		1.358.068			20.012	.000
	RM		-2.121.443		-.169	-4.789	.000
	XSRM		.489.372		.041	1.316	.188
	AvRM		3.128.289		.196	10.832	.000
	5yr Growth		0.013.002		.084	5.712	.000
	ROE		6.302.275		.493	22.889	.000
	RESROE		.407.142		.055	2.865	.004
	RESROE		.407.142		.055	2.865	.004

These results show that the resource margin model has high explanatory power if we assume that the conditions for reliable OLS regressions obtain. The t statistics are less significant than might first appear because of problems of large numbers and auto-correlation. Average and current resource margins have good explanatory power but surprisingly growth of resources is a less valuable regressor: in spite of some significance as measured by the t statistic, the coefficient is relatively small.

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ROE and residual equity returns have a small influence on the regression results for market-to-resource ratios. The negative coefficient for equity returns suggest it operates as a corrective factor to the basic resource margin model.

By way of comparison, results were determined for the traditional market-to-book ratio model.

Using OLS, the market value-to-resource model has greater explanatory power than the traditional market-to-book value model for this set of companies. Average resource margins contribute to the explanatory power of the traditional model, while current resource margins introduce a corrective element to the model.

Supplementary analysis has shown that the model can be improved by introducing a degree of company specificity. Difficulties arising from the statistical characteristics of the data set (particularly auto-correlation and heteroskedasticity), however, have to date precluded the formulation of a simple formulation of company-specific parameters suitable for testing by OLS methods. Investigations are in hand to derive new company-specific models suitable for generalized least square (GLS) methods.

While the OLS regressions lend general support to the resource margin approach, and suggest superiority to the traditional market-to-book model, further analysis is required to validate the assumptions upon which the OLS regressions rest.

7.7 The Future

Research currently underway at Oxford continues the investigation of the impact of resource margins on the value of companies in the United States. A particular implementation of RMA is being used which aims to examine whether it is possible to discern particular patterns in the evolution of the spreads of companies. If clear patterns exist, it should be possible to show convincingly that each pattern is rewarded by a predictable appreciation of the market-to-resources ratio. So if we can obtain further empirical confirmation of how investors reward performance, we will be able to predict with some confidence how we would expect share prices to evolve over a few years in response to the economic performance of a business as it executes a given strategy. This would validate the retrospective CV paradigm for valuation that we have proposed. Many of the difficulties associated with DCF would be overcome. Valuation would be framed within horizons that are spanned by current management, with fairly robust forecasts of near-term performance grounded in models that reflect the way investors behave. Key to this approach is the right measure of performance: RM is a promising candidate.

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7.8 Summary

In this chapter we have considered why financial considerations relating to value are relevant to strategy, and have explored some of the difficulties associated with traditional approaches to valuing strategy (DCF).

Efforts have been expended to make DCF more valuable to the strategist by focusing on the notion of threshold margins which exceed investor requirements. These excess returns create stock market value (Fruhan), and understanding the operational factors that affect these thresholds (Rappaport) can help considerably in strategy formulation. Strategic options may be compared and contrasted as a result of their positioning on financial evaluation matrices such as those developed by Marakon and CVA. In spite of their greater applicability, none of the approaches deal with the difficulties of discounting very uncertain future events.

EVA has recently emerged as a popular measure of strategic performance. It avoids much of the difficulty associated with DCF by restricting its horizon to a single period measure. Unfortunately, this measure does not always coincide with shareholders' single-period excess returns, and requires much accounting manipulation. EVA also misaligns current performance with historic resource commitments.

An alternative approach is proposed: scenario-based retrospective valuation (SBRV) relying on a robust measure of performance which is grounded in economics, captured by the accounting system and consistent with financial theory (resource margins). This measure offers intuitive and valuable insights that sit comfortably with industrial structure and models of strategy based upon resources or portfolio considerations. Empirical studies validate the value relevance of this measure. More specific company valuation models incorporating RMA are anticipated.

References

- Bain, J. S. (1959). *Industrial Organization*. New York: John Wiley.
- Barwise, P., Marsh, P. R., and Wensley, R. (1989). 'Must Finance and Strategy Clash?'. *Harvard Business Review*, Sept.–Oct: 85–90.
- Brealey, R., and Myers, S. (1996). *Principles of Corporate Finance* (5th edn). New York: McGraw-Hill.
- Copeland, T. E., Roller, T., and Murrin, J. (1995). *Valuation: Measuring and Managing the Value of Companies*. New York: John Wiley.
- and Weston, J. F. (1992). *Financial Theory and Corporate Policy* (3rd edn). Reading, Mass.: Addison-Wesley.
- Dixit, A. K., and Pindyck, R. S. (1994). *Investment under Uncertainty*. Princeton: Princeton University Press.
- Economist* (1991). 'The Best Companies'. 7 Sept.

end p.201

- Edwards, J., Kay, J., and Mayer, C. (1987). *The Economic Analysis of Accounting Profitability*. Oxford: Oxford University Press.
- Ehrbar, A. (1998). *EVA: The Real Key to Creating Wealth*. New York: John Wiley.
- Elton, E. J., and Gruber, M. J. (1995). *Modern Portfolio Theory and Investment Analysis* (5th edn). New York: John Wiley.
- Fama, E. F., and French, K. R. (1997). 'Industry Costs of Equity'. *Journal of Financial Economics*, 43/2: 153–93. 
- Financial Times* (1996). 'How the Experts Value Blue Sky Forecasts'. 24 Feb.
- Fruhan, W. E. (1979). *Financial Strategy*. Homewood, Ill: Irwin.
- Grant, R. M. (1996). *Contemporary Strategy Analysis*. Oxford: Blackwells.
- Johnson, P. (1999a). 'An Investigation of Clean Surplus Value-Added Pricing Models Using Time Series Methods for the UK 1983–1996'. 1999-FE-05. Oxford: Financial Research Centre Working Paper.
- (1999b). 'Beyond EVA: Resource Margin Accounting'. *Mastering Strategy*, 9. London: Financial Times.
- (2000a). 'Resource Margin Accounting: A Theoretical Perspective'. Oxford: Financial Research Centre Working Paper.
- (2000b). 'Resource Margin Accounting: Empirical Results for US Manufacturing Companies 1983–98'. Oxford: Financial Research

Centre Working Paper.

Knight, F. H. (1933). *Risk, Uncertainty, and Profit*. London School of Economics, Reprints of Scarce Tracts, No. 16.

Kwong, M. F. C., Munro, J. W., and Peasnell, K. V. (1994). 'Commonalities between Added Value Ratios and Traditional Return on Capital Employed'. 94/007. Lancaster Working Papers in Accounting and Finance.

Luehrman, T. A. (1997). 'Using APV: A Better Tool for Valuing Operations', *Harvard Business Review*, May-June: 145–54.


Mahajan, V., and Wind, J. (1985). 'Integrating Financial Portfolio Analysis with Product Portfolio Models', in H. Thomas and D. Gardner (eds.), *Strategic Marketing*. New York: Wiley.

Mintzberg, H. (1994). *The Rise and Fall of Strategic Planning*. New York: Prentice-Hall.

O'Hanlon, J. (1994). 'Clean Surplus Residual Income and Earnings Based Valuation Methods'. 94/008. Lancaster Working Papers in Accounting and Finance.

—— (1996). 'The Time Series Properties of the Components of Clean Surplus Earnings: UK Evidence'. *J. Bus. Fin. Actg.* 23(2): 159–83.



—— and Peasnell, K. V. (1998). 'Wall Street's Contribution to Management Accounting: The Stern Stewart EVA Financial Management System', *Mgt. Acc. Res.*, 9: 421–44. 

Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.

Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May–June: 79–91.

Rappaport, A. (1986). *Creating Shareholder Value*. New York: Free Press.

Rappaport, A. (1992). 'CFOs and Strategists: Forging a Common Framework'. *Harvard Business Review*, May–June: 84–91.

Varaiya, N., Kerin, R. A. and Weeks, D. (1987). 'The Relationship between Growth, Profitability and Firm Value'. *Strategic Mgt. Journal*, 8: 487–97.

Whittington, R. (1993). *What is Strategy—and Does It Matter?* London: Routledge.

Wilcox, J. W. (1984). 'The P/B–ROE Valuation Model'. *Financial Analysts Journal*, Jan.–Feb.: 3–11.

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8 The Knowledge-Based View of the Firm

Robert M. Grant

8.1 Introduction

DURING the early part of the 1990s, a number of ideas and streams of research converged to produce what has come to be described as 'the knowledge-based view of the firm'. These streams include the resource/capability analysis of the firm (Barney 1991, 1996; Prahalad and Hamel 1990; Grant 1991), epistemology (including contributions from Polanyi 1962, 1966; Hayek 1947; Krogh, Roos, and Slocum 1994), and organizational learning (Levitt and March 1988; Huber 1991). The outcome is not so much a new theory of the firm, as a number of explorations into aspects of the firm (and economic institutions more generally) which are unified by their focus upon the role of knowledge in production and exchange. Among the key contributions to this literature have been Demsetz's (1991) knowledge-based analysis of firm boundaries, Brown and Duguid's (1991) examination of knowledge-based organization, Kogut and Zander's (1992) view of the firm as a knowledge-processing institution, and Nonaka's (1994) analysis of knowledge creation within the firm. In an earlier paper, I attempted to reconcile and integrate some of these contributions (Grant 1996a).

Since my 1996 paper, those working in the area of knowledge management have risked being engulfed by the flood of publications in the knowledge-based

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approaches to the firm, knowledge management, and organizational learning. Valuable contributions have been made to the analysis of creativity, learning, new product development, inter-firm collaboration, knowledge transfer, knowledge-based competition, and many other areas. In this chapter, I shall try to draw together some of these themes in order to identify the key elements of the knowledge-based approach to the firm and some of the implications of this approach. I begin by considering the context. Is interest in knowledge-based theories of the firm the result of the evolution of ideas, or is it the result of a fundamental transformation in the nature of the economy where the old theories no longer apply?

8.2 Background: Is there a 'New Knowledge Economy'?

Interest in a knowledge-based approach to the theory of the firm has been closely linked to the recognition of the fundamental economic changes resulting from the acceleration in the accumulation and availability of knowledge during the past two decades. The emerging knowledge-based, post-industrial economy, widely referred to as the 'New Economy', exhibits several characteristics. In terms of resources, the new economy is dominated by its dependence upon knowledge as compared with land in the agrarian economy and capital in the industrial economy (Quinn 1992; Drucker 1993; Burton-Jones 2000). Second, it is focused on intangibles rather than tangibles (Stewart 1997; Edvinsson and Malone 1997). In terms of output this means a predominance of services over goods. In terms of inputs it means that the primary assets of firms are intangibles such as technology and brands rather than physical and financial assets. This is reflected in firms' valuation ratios: on 31 May 2000, the ratio of market value to book value of the world's five most valuable companies (GE, Intel, Cisco, Microsoft, and Exxon Mobil) was 14.8 (*Business Week* 2000: 67). Third, it is networked: unprecedented interconnectivity has resulted from new communication media. Fourth, it is increasingly digital. Digitization of information has had a huge impact on the capacity for transferring, storing, and processing information. Fifth, it is virtual. The virtual organization is just one example of the transition from real to virtual work made possible by digitization and networking (Hagel and Singer 1999). The growing role of virtual (i.e. electronic) money, virtual transactions, virtual communities, and virtual vacations are dissolving the boundaries between the real and imaginary worlds to the point where futurists Taylor and Wacker (1999) claim that we are entering an age where anything we can dream we can do. Finally, the new economy is subject

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to rapid change. The rapid pace of innovation and the speed of diffusion has accelerated the pace of technological change and compressed the life cycles of products and technologies helping to create what Davis and Meyer (1998) call the 'blur' economy.

The outcomes of these trends are a number of structural changes within the business sectors of the advanced industrialized nations. Particularly gratifying to both central bankers and ordinary citizens has been the upturn in labor productivity since 1996. The evidence from the United States points to a reversal in the decline of labor productivity since the mid-1960s. Although, as Paul Romer reminds us, looking much longer term, the rate of labor productivity is not just a recent phenomenon, it is a general feature of the 'soft revolution' of the last century (Romer 1998). At the sectoral level, the acceleration of technological change is redrawing the boundaries of industries. The convergence of computing and communication, the impact of new materials, and the circumvention of traditional channels of

distribution (*disintermediation*) are all aspects of the convergence of some industries and the redefinition of others. Finally, the new knowledge economy has seen an unprecedented increase in globalization. The Internet and other media for global communication and information transfer reinforce Peter Drucker's dictum that 'Knowledge knows no boundaries.'

How far these changes amount to the emergence of a new model of business activity is debatable. The evidence of human development over the past five millennia suggests that knowledge has been the basis of cultural and economic advances since mankind first graduated from a primitive hunter-gatherer society. Similarly, it is difficult to argue that today's software engineer, web designer, or management consultant is any more a knowledge worker than was Stradevario, Rembrandt, or Brunei. Different workers use different types of knowledge, and it is difficult to compare the knowledge intensity of different occupations.

My own conclusion is that, despite the increasing importance of knowledge within the economy and the far-reaching changes caused by the digital revolution, the recent surge of interest in knowledge and its management is not primarily the result of external changes in the business environment. More important, in my opinion, has been the burst of intellectual activity that has accompanied the recognition of knowledge as a productive resource, the rediscovery of the discussion of knowledge by writers such as Hayek (1947), Polanyi (1962), Arrow (1962), and March and Simon (1958), and the wave of new thinking concerning the characteristics of knowledge and its role within the firm. Thus, most of the developments in the concepts and techniques of knowledge management and the knowledge-based view of the firm that appeared during the 1990s were not specific to the present digitally based, post-industrial economy. Indeed, some of the powerful tools of knowledge management that have recently emerged concern the development and application of tacit knowledge as opposed to the management of codified knowledge. Taken as a whole, the main contribution of the surge of interest in the

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economics and management of knowledge has been in shedding light on the fundamental issues of the business enterprise that have long been central to strategy, organization, and human resource management. What knowledge management and the knowledge-based view of the firm offer us is insight into aspects of the firm and its management that we have failed to understand properly because of our failure to consider the nature and characteristics of knowledge.

In a previous paper (Grant 2000), I gave two examples of how recognition of the role of knowledge can offer insight into management and provide a bridge between different theories of management. Thus, two of the most important contributions to management thinking and management practice during the last century were scientific management and total quality management. Although these two approaches shared a common basis in terms of a rigorous, scientific methodology to the analysis of management problems, their implications for decision-making and the role of managers were very different. These differences between the two can be traced to their different assumptions concerning the characteristics of knowledge within the firm.

In Frederick Taylor's (1916) 'scientific management', the basic division of labor is between workers who undertake the operational tasks and managers who—because of their superior intelligence, education, and knowledge of the scientific principles of management—make decisions. A critical assumption of the approach is that managers can access all the knowledge held by the workers. This implicit assumption that managers have ready access to the knowledge of their subordinates is a central weakness, not just of scientific management but of hierarchical models of decision-making more generally. Total Quality Management (TQM), though based upon the scientific principles of statistical analysis and cause and effect relationships, makes different assumptions about the distribution and characteristics of knowledge. TQM recognizes that knowledge is not easily transferable. Given that good decisions require the application of the knowledge relevant to those decisions, TQM favors the transfer of decision-making concerning each employee's production tasks to the employees who are undertaking the tasks. Hence, the emphasis in TQM is not to pass operational decision-making up to specialized decision-makers called managers, but to develop the decision-making capacities of those undertaking the operations work. This outcome also rests upon a second implicit assumption about knowledge that is inherent in TQM: that human beings are intelligent and capable of learning. Hence, the continuous training of workers in statistical process control and problem-solving is a central feature of TQM.

My point is this: the rekindling of interest in the role of management may have been stimulated by the accelerating rate of technical change in the world—particularly in information and communications technologies—however, this is not the primary force driving interest in knowledge management and the knowledge-based view of the firm. What my discussion of scientific management and TQM reveals is

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that, once we recognize quite elementary aspects of the nature of knowledge—such as the ease with which it can be communicated from one person to another—then we are able to gain substantial insight into the theories and principles of organization and management.

8.3 Fundamentals of The Knowledge-Based View of the Firm

The emerging 'knowledge-based view of the firm' is not a theory of the firm in any formal sense. It is more a set of ideas about the

existence and role of the firm that emphasize the role of knowledge. At its foundation are a number of assumptions and observations concerning the nature of knowledge and its part in production. These include:

1. Knowledge is the overwhelmingly important productive resource in terms of market value and the primary source of Ricardian rents (Machlup 1980; Grant 1996a).
2. Different types of knowledge vary in their transferability: explicit knowledge can be articulated and easily communicated between individuals and organizations; tacit knowledge (skills, know-how, and contextual knowledge) is manifest only in its application—transferring it from one individual to another is costly and slow (Nonaka 1994; Kogut and Zander 1992).
3. Knowledge is subject to economies of scale and scope. A characteristic of all knowledge is that its initial creation is more costly than its subsequent replication. As I have already argued, economies of scale in knowledge together with the complementarity of different types of knowledge imply increasing returns in knowledge-intensive industries—a fundamental feature of the 'new economy' (Arthur 1994). To the extent that knowledge is not specific to the production of a specific good, economies of scale translate into economies of scope. The extent of economies of scale and scope vary considerably between different types of knowledge. They are especially great for explicit knowledge, information in particular, which is 'costly to produce, but cheap to reproduce' (Shapiro and Varian 1999: 3). Tacit knowledge tends to be costly to replicate, but these costs are lower than those incurred in its original creation (Winter 1995).
4. Knowledge is created by human beings and to be efficient in knowledge creation and storage, individuals need to specialize (Simon 1991:127).
5. Producing a good or service typically requires the application of many types of knowledge (Kogut and Zander 1992).

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An important implication of these assumptions is the dichotomy between two types of knowledge-based activity in the economy: there are those activities that are concerned with increasing the stock of knowledge—what March (1991) refers to as 'exploration' and Spender (1992) calls 'knowledge generation'—and those activities concerned with deploying knowledge in order to produce goods and services—what March (1991) refers to as 'exploitation', and Spender (1992) calls 'knowledge application'. Reconciling the dichotomy between knowledge-creating and knowledge-applying activities represents a key challenge for economic organization: knowledge creation requires specialization (points 3 and 4 above), while knowledge application requires diversity of knowledge (point 5). Given the limited transferability of knowledge (point 2), this presents considerable difficulty for the institutions of production. The solution lies in some process of knowledge integration that permits individuals to apply their specialized knowledge to the production of goods and services, while preserving the efficiencies of specialization in knowledge acquisition (Demsetz 1991).

8.4 Knowledge and Economic Organization: Coordination in the Firm

The problem of economic organization maybe viewed in terms of this challenge of reconciling efficiency in knowledge creation with efficiency in knowledge deployment. In order to create and store knowledge, individuals must specialize. This is a feature not just of today's sophisticated, knowledge-based society, but also of Adam Smith's pin workshop (Smith 1937). For more complex products, a jet engine or a feature-length movie, production is likely to require the combined efforts of many thousands of different specialists. Integrating such a vast range of different knowledge bases represents an immense organizational task.

These problems of organizing fall into two categories: the problems of *cooperation* and the problems of coordination. Most organizational analysis has focused upon the problem of cooperation. This is true both of the analysis of alternative institutions and the analysis of organizational structure. The analysis of the relative efficiency of alternative institutions has been dominated by transaction cost economics, in particular the costs arising from the opportunistic behavior by the parties to a contract. The analysis of organizational structure too has been dominated by issues of control, goal alignment, and incentives. This is true of traditional

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organizational theory that has been primarily concerned with issues of hierarchical control; it is also evident in organizational economics that has focused upon misalignment of goals, especially between principals and agents.

The potential of a knowledge-based perspective to further our analysis of organization is primarily in relation to the problem of coordination. Even if we abstract from problems of goal conflict between individuals and groups, the problem of organizing is far from trivial. The members of a parent-teacher association may be united in their desire to put on an event to raise funds for the school, but in the absence of coordination, the event will not happen. Focusing upon knowledge as the critical resource in the production of all goods and services helps us clarify the central issues of coordination. The challenge of coordination is to devise mechanisms through which the knowledge resources of many different individuals can be deployed in the production of a particular product. For such a deployment mechanism to be efficient requires that it preserves the efficiencies of specialization in knowledge creation. Hence, any system of production that requires that each individual learns what every other individual knows is inherently inefficient. As Demsetz (1991:172)

notes: 'Although knowledge can be learned more effectively in specialized fashion, its use to achieve high living standards requires that a specialist somehow uses the knowledge of other specialists. This cannot be done only by learning what others know, for that would undermine gains from specialized learning.'

However, until recently, the primary driving force behind the development of a knowledge-based approach to the existence of firms has been based less upon the need to understand internal coordination within the firm as upon the quest for a theory of the firm that is independent of the tenets of transaction cost economics (TCE). The desire for an alternative to TCE is a consequence of distaste for the behavioral assumptions that underpin the theory—notably the presupposition of opportunism among people (Ghoshal and Moran 1996; Williamson 1996), dissatisfaction with the theoretical basis of TCE (Zajac and Olsen 1993; Demsetz 1991), and empirical evidence that contradict some of the predictions of TCE.

Demsetz's (1991) contribution to such a knowledge-based view was in developing a theory of the vertical boundaries of the firm that rested upon the observation that markets are efficient only where knowledge can be embodied in products such that the use of the product by the purchaser is not dependent upon accessing the knowledge necessary for producing the product. Kogut and Zander (1992) viewed coordination as fundamentally different within the firm as between individuals transacting across markets. They argued that the nature of economic activity which occurs within the firm is fundamentally different from that which occurs in the market. Kogut and Zander stated that 'organizations are social communities in which individual and social expertise is transferred into

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economically-useful products and services by the application of a set of higher-order organizing principles. Firms exist because they provide a social community of voluntaristic action structured by organizing principles that are not reducible to individuals' (Kogut and Zander 1992: 384). In their later work, Kogut and Zander (1996) have been a little more explicit about the identity and operation of these 'higher organizing principles' emphasizing the role of social identity as a basis for coordination. Ghoshal and Moran (1996) also identify the firms' capacity to undertake different types of activity than those undertaken by markets, pointing to firms' ability to achieve dynamic efficiency and innovation through 'purposeful adaptation'.

The debate that has ensued over the relative merits of TCE and knowledge-based approaches to the existence of the firm (e.g. Foss 1996; Conner and Prahalad 1996) has failed to reach a reconciliation of the different approaches. While the promoters of knowledge-based approaches point to the versatility of the firm in coordinating production activities, the advocates of TCE point to the critical role of transaction costs: in the absence of these costs firms can replicate any kind of coordination that is possible within the firm. Foss argues that the knowledge-based theorists 'commit the fallacy of technological determinism when they argue that the need for shared codes, languages, etc.... necessitates firm organization in a way that can be seen in isolation from considerations of opportunism/moral hazard' (Foss 1996: 473). Although the gains from 'higher order organizing principles' maybe necessary to explain the existence of the firm, they are not sufficient. According to Foss, 'Agents (human resources) could simply meet under the same factory roof, own their own capital equipment or rent it to each other, and develop value-enhancing higher-order organizing principles among themselves (as a team)' (ibid. 474). Illustrating this point, Milgrom and Roberts (1992:198) quote the case of the nineteenth-century English traveler in China who, shocked at the ferocity with which the overseer whipped the oarsmen of a passenger ferry, was informed that the oarsmen hired the overseer in order to prevent slacking by individual oarsmen.

My own reading of the literature pushes me towards the view that the knowledge-based and transaction cost theories of the firm are complementary rather than competitive. Knowledge-based approaches depend heavily upon the failure of markets for information and other types of knowledge (Arrow 1962). At the same time, TCE tells us a lot about market transactions, but has little to say about the administrative processes within the firm. While there is little escape from transaction costs as essential to any theory of economic organization, too narrow a focus upon transaction costs causes us to lose focus upon what it is that firms do and the types of economic activity that give rise to transactions in the first place. Let us explore further the insights that a knowledge-based approach can offer into the comparative efficiency of different economic institutions in coordinating the production of goods and services.

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8.4.1 Mechanisms for Knowledge Integration

Part of the problem is that Kogut and Zander (1992), Nonaka (1994), Spender (1994), and other writers on knowledge and the firm, rest much of their analysis upon the concept of 'organizational knowledge'. Once we view organizations as knowing entities, then it is difficult to discern the mechanisms through which individuals link together their separate skills and knowledge bases to create this collective knowledge. An alternative approach that is consistent with Simon's dictum that 'all knowledge resides in human heads'—is to dispense with the notion of organizational knowledge and to regard all collective knowledge as the result of aggregating and integrating individuals' knowledge.

In an earlier paper (Grant 1996a), I suggested some of the mechanisms through which firms (and other organizations) might achieve the integration of individuals' knowledge into the production of goods and services. As I have already argued, the key to efficiency in knowledge integration is to create mechanisms that reconcile the efficiency in knowledge creation (that requires specialization) with efficiency in knowledge deployment (that requires integrating many types of knowledge). Drawing upon the existing literature, I proposed four mechanisms for knowledge integration:

- **Rules and directives** . 'Impersonal' approaches to coordination involve 'plans, schedules, forecasts, rules, policies and procedures, and standardized information and communication systems' (Van De Ven, Delbecq, and Koenig 1976: 323). Rules may be viewed as standards which regulate the interactions between individuals. Thus, in society at large, rules in the form of etiquette, politeness, and social norms are essential to facilitating human interaction. The efficiency of these mechanisms in achieving coordination extends beyond their ability to minimize communication (Galbraith 1973). As recognized by Demsetz (1991: 172), direction is a 'low cost method of communicating between specialists and the large number of persons who either are non-specialists or who are specialists in other fields'. Such rules and directives provide a means by which tacit knowledge can be converted into readily comprehensible explicit knowledge. Thus, it is highly inefficient for a quality engineer to teach every production worker all that he knows about quality control. A more efficient means of integrating his knowledge into the production process is for him to establish a set of procedures and rules for quality control.
- **Sequencing** . Probably the simplest means by which individuals can integrate their specialist knowledge while minimizing communication and continuous coordination is to organize production activities in time-patterned sequences such that each specialist's input occurs independently through being assigned a separate time slot. Thompson viewed sequential interdependence as technologically determined. Certainly, the characteristics of the product, its physical inputs, and its production technology strongly influence the potential for sequencing: a product comprised of multiple components facilitates sequencing much more than a

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commodity produced by continuous processes. However, in most production activities there is discretion over the extent of sequencing. For example, new product design can be fully sequential, overlapping sequences, or concurrent (Nonaka 1990; Clark and Fujimoto 1991).

- **Routines** . An organizational routine is a 'relatively complex pattern of behavior... triggered by a relatively small number of initiating signals or choices and functioning as a recognizable unit in a relatively automatic fashion' (Winter 1987: 165). While a routine may be a simple sequence, its interesting feature is its ability to support complex patterns of interactions between individuals in the absence of rules, directives, or even significant verbal communication. There are two main dimensions to this complexity. First, routines are capable of supporting a high level of simultaneity of individuals' performance of their particular tasks—examples include navigation of a ship (Hutchins 1991), surgical operating teams, and pit crews in auto racing (Grant 1996b), and the operations of fast food restaurants (Leidner 1993). Second, routines can permit highly varied sequences of interaction. While Nelson and Winter (1982) and Gersick and Hackman (1990) have emphasized the automatic nature of routines, Pentland and Rueter (1994) have shown that a routine can be a varied repertoire of responses in which individuals' moves are patterned as 'grammars of action'.
- **Group problem-solving and decision-making** . While all the above mechanisms seek efficiency of integration through avoiding the costs of communication and learning, some tasks may require more personal and communication-intensive forms of integration. Galbraith (1973) points to the need for 'impersonal' coordination through rules and plans to be supplemented by 'personal' and 'group' coordination modes, the last taking the form of meetings. Reliance upon high-interaction, non-standardized coordination mechanisms increases with task complexity (Perrow 1967) and task uncertainty (Galbraith 1973; Van De Ven, Delbecq, and Koenig 1976). Hutchins (1991) documents the switch from routine mode to group problem-solving mode in a crisis. The main contribution of the knowledge-based view to this discussion is recognition of the limits and high costs of consensus decision-making given the difficulties associated with the communication of tacit knowledge.

8.4.2 The Role of Common Knowledge

While these mechanisms for knowledge integration are necessitated by the differentiation of individual's stocks of knowledge, all depend upon the existence of some measure of *common knowledge* for their operation. At its most simple, common knowledge comprises those elements of knowledge common to all organizational members: the intersection of their individual knowledge sets. The importance of

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common knowledge is that it permits individuals to share and integrate aspects of knowledge which are *not* common between them. There are different types of common knowledge, each of which is likely to fulfil a different role in permitting knowledge integration:

- **Language** . The existence of a common language is fundamental to integration mechanisms which rely upon verbal communication between individuals, namely, integration through rules and directives, and integration through group problem-solving and decision-

making. The lack of a common language among production workers in the United States and other polyglot communities represents a considerable barrier to the introduction of integration-intensive manufacturing techniques such as total quality management.

- **Other forms of symbolic communication** . The ability of organizational members to speak the same tongue is but one aspect of commonality of language. If language is defined to embody all forms of symbolic communication, then literacy, numeracy, and familiarity with the same computer software are all aspects of common language which enhance the efficiency and intensity of communication. The experiences of companies such as Motorola, Texas Instruments, and Toyota confirm that the higher the level of common knowledge in the form of literacy, numeracy, and basic statistics (e.g. the ability to interpret Pareto charts), the more effective are rules, procedures, and directives in implementing sophisticated levels of TQM.
- **Commonality of specialized knowledge** . While language is the core aspect of common knowledge which provides a platform for communication-based modes of knowledge, the level of sophistication which communication-based modes of knowledge integration achieve depends upon the extent of commonality in their specialized knowledge. There is something of a paradox in this. The benefit of knowledge integration is in meshing the different specialized knowledge of different individuals—if two people have identical knowledge there is no gain from integration—yet, if the individuals have entirely separate knowledge bases, then integration cannot occur beyond the most primitive level.
- **Shared meaning** . The problem of communication-based modes of knowledge integration is that they require the conversion of tacit knowledge into explicit form. Such conversion typically involves substantial knowledge loss. However, tacit knowledge can be communicated through the establishment of shared understanding between individuals. Polanyi (1966: 61) notes that 'a teaching which appears meaningless to start with has in fact a meaning which can be discovered by hitting on *the same kind of indwelling* as the teacher is practicing' (emphasis added). The organizational learning literature points to the role of common cognitive schema and frameworks (Weick 1979; Spender 1989), metaphor and analogy (Nonaka and Takeuchi 1995), and stories (Brown and Duguid 1991) as vehicles for molding, integrating, and reconciling different individual

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experiences and understandings. The underlying theory of the mutual cognitions necessary for coordination in social actions has been developed within social psychology (Leudar 1992).

- **Recognition of individual knowledge domains** . Common cognition is only one element in the development of shared understanding between individuals which is critical to their integrating their tacit knowledge. Another is the requirement that each individual is aware of the repertoire of know-how and stock of explicit knowledge possessed by each other individual. In any situation of reciprocal or group interdependence, a soccer team or a debating team, the integration requires *coordination by mutual adjustment* (Thompson 1967: 56). Achieving this without explicit communication requires that each team member recognizes the tasks and actions which the other can perform exceptionally well. Such mutual recognition permits successful coordination even in novel situations where routines have not been established.

8.4.3 The Efficiency of Firms, Alliances, and Markets in Deploying Knowledge

The case for the existence of the firm as a unit of economic organization rests upon the superiority of the firm over markets in supporting these knowledge integration mechanisms. To achieve coordination through these different mechanisms of integration requires authority (to permit direction), centralized decision-making, co-location, and common knowledge (to permit communication). All these connotations are provided more readily within a firm than in any other type of organization.

By contrast, market contracts suffer from the familiar sources of transaction cost that afflict exchange transactions in knowledge. Information and other forms of explicit knowledge suffer problems of non-exclusivity of use and the difficulty of concluding contracts without first revealing the knowledge involved (Arrow 1962). Tacit knowledge is also problematical because, in order to mesh their areas of know-how, transacting parties are likely to require a 'common language or.... overlaps in cognitive frameworks.... This requires time and effort: investments which are to some extent... transaction specific... [hence] yield issues of dependence and lock-in' (Nooteboom 1996: 331). Within the firm, these problems are ameliorated by a social context characterized by a common identity of organizational members (Kogut and Zander 1996) and the ability of the firm to appropriate knowledge rents through secrecy (Liebeskind 1996). In addition, markets are less able than firms to support either direction or routine. While routines develop within markets, market-based routines are often less adaptable and less effective in integrating the individuals' specialist knowledge than those within a single firm.

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Alliances can avoid many of the costs associated with knowledge transactions across markets. Alliances limit opportunism by converting single period into multi-period games and fostering investments in trust (Ring and Van de Ven 1992; Teece 1992; Gulati 1995; Simonin 1997). Yet, inevitably alliances are inferior to firms in terms of their inability to integrate knowledge through 'higher-order organizing

principles'. They typically lack the authority-based relationships needed for rules and directives and, although many alliances are very long lasting, most lack the close, continuous association conducive to developing routines.

Are there any circumstances where alliances can be superior to firms in knowledge integration? The key problem for knowledge integration within the firm is that, whether integration is by direction or routine, the efficiency of integration tends to decline as the firm's knowledge domain expands. As with any complex system, large-scale knowledge integration requires hierarchy (Simon 1962), with loose coupling of components and subsystems (Weick 1976; Sanchez and Mahoney 1996). The efficiency of directives and rules as integrating devices depends upon the extent to which they can be standardized (March and Simon 1958; Thompson 1967). Similarly with organizational routines: to the extent that they are embedded within organizational values and norms, the common culture of an organization limits the variety of routines that can be efficiently performed. Thus, as the range and diversity of knowledge increases, so integration mechanisms need to be increasingly differentiated, resulting in rising marginal costs of knowledge integration within the firm.

In these circumstances, efficiency of integration may be maximized through separate firms integrating knowledge at the component or subsystem level, with overall integration through an alliance between the firms. Thus, the rapid growth in strategic alliances within biotechnology reflects the advantages of alliances between dedicated biotechnology companies and large, integrated pharmaceutical companies as compared to mergers and acquisitions. Any benefits of full merger in terms of closer integration are likely to be offset by the difficulty of reconciling the different routines and operating rules required in the pharmaceutical business from those required for leading-edge biotechnology research (Barley, Freeman, and Hybels 1992; Powell 1998). Similarly in semiconductors, although firms are more effective than alliances in sharing and developing knowledge (Almeida, Song, and Grant 1998), as the range of knowledge required for the design and manufacture of semiconductors continues to expand, so alliances have proliferated, both between semiconductor design companies and between designers and fabricators. Within alliance networks, however, one firm tends to act as overall system integrator (Lorenzoni and Baden-Fuller 1994); such a role requires some duplication of knowledge between firms since, in order to efficiently integrate across multiple areas of knowledge, the integrating firm must continue to maintain some knowledge base in each knowledge area. As Prencipe (1997) has shown, the role of aero engine manufacturers as 'systems integrators' for many hundreds of suppliers of

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components and subsystems requires that they maintain a residual level of R&D in the component technologies that they are responsible for integrating.

In addition, alliances also allow fuller utilization of firms' knowledge resources. Grant and Baden-Fuller (1999) point out the problems firms face in achieving an efficient match between their knowledge domain and their product domain. This issue becomes critical because, if limits to firm growth within individual markets constrain a firm's ability to fully exploit scale economies in specific types of knowledge, then economies of scope emerge as crucially important to achieving efficient utilization of knowledge. However, different types of knowledge have different product domains, which raises the problem of *fit* between the firm's knowledge domain and its product domain. If much of the firm's knowledge is not product-specific and is subject to economies of scope, excess capacity in knowledge encourages the firm to expand its product scope (Penrose 1959). Efficient utilization of knowledge is achieved where the knowledge domain of the firm matches exactly the knowledge requirements of the product domain of the firm with no overlap and, thus, no underutilization of knowledge. The problem, however, is that different types of knowledge are applicable to different sets of products. Through outsourcing certain knowledge requirements from other firms and supplying to other firms knowledge available in excess within the firm, it can achieve fuller knowledge utilization all round. Because of the familiar sources of transaction costs in market contracts for knowledge, such arrangements are best achieved through strategic alliances. Thus, alliances are more frequent in sectors where knowledge requirements are broad, where knowledge tends not to be product-specific, and where economies of scope in knowledge are substantial, such as aerospace, automobiles, and consumer electronics, than in sectors where knowledge is more product-specific, such as iron and steel, metal fasteners, and textiles. The tendency for alliances to increase over time reflects the broadening knowledge requirements of most goods and services, and the breadth of application of newer technologies such as microelectronics, materials sciences, imaging, microengineering, and digital communication.

One implication of a knowledge-based perspective on economic organization is that, by concentrating upon the mechanisms for coordination, it shifts the focus of attention away from institutions. It is notable that economists have experienced considerable difficulty even in agreeing upon a definition of the firm: Demsetz (1995) has chosen to avoid the term altogether to refer to 'firm-like institutions'. If economists cannot agree on what the firm is, there is little hope of consensus between economists, sociologists, and lawyers. However, if the goal of organizational analysis is to predict the most efficient structures and systems for organizing production, a knowledge-based perspective suggests that the primary consideration is not so much the institution for governing transactions (markets vs. firms) as the

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mechanisms through which knowledge integration is achieved. Thus, if the main mechanisms for integrating the knowledge required for production are rules and organizational routines, we can identify the conditions needed to support these mechanisms. We can then go on to make general hypotheses about the efficiency of particular institutions in supporting these mechanisms (e.g. firms tend to outperform both markets and alliances because they permit relationships of authority between individuals and groups and because they provide stability of relationships conducive to the developing organizational routines). However, such analysis can also permit finer-grained analysis of why, in certain circumstances, collaborative relationships between separate firms can achieve superior knowledge integration than that achieved in single corporations. Thus, the MIT automobile study observed:

The make-or-buy decision that occasioned so much debate in mass production firms struck Ohno and others at Toyota as largely irrelevant as they began to consider obtaining components for cars and trucks. The real question was how the assembler and the supplier could work together smoothly to reduce costs and improve quality, whatever formal, legal relationship they might have (Womack, Jones, and Roos 1990).

Focusing upon coordination mechanisms rather than economic institutions may permit a broader view for the institutions through which productive activity takes place. Thus, Brown and Duguid (1991) identify 'communities of practice' within which knowledge is shared and problems solved. These loose-knit informal institutions created through common interests and shared experiences are likely to overlap formal organizational boundaries, yet may be much more effective in integrating and transferring knowledge than the more formalized processes of the firm.

8.4.4 Implications for Firm Structure and Design

Some of the most potentially interesting applications of knowledge-based approaches to the theory of the firm lie in the area of organizational design. As has been recognized by many commentators, our understanding of the determinants of organizational structure and principles of organization design are under-developed and a widening gap appears to be opening between the evolution of organizational structures in the real world and our ability to explain, let alone predict, these developments.

Let us consider two areas in which the knowledge-based view of the firm has influenced our thinking about organizational structure: the design of hierarchical structures and the distribution of decision-making in the organization.

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8.4.5 Designing Hierarchical Structures: Authority and Modularity

Hierarchy is a solution to the problems of both cooperation and coordination. However, the analysis of hierarchy in organizational theory has not drawn a clear distinction between the two. The focus has been to emphasize issues of cooperation: in a hierarchy of authority a pyramid of individuals (or 'offices') are arranged in vertical authority-based relationships of authority. Progress in the analysis of organizational structure requires a separation of the issues of coordination and goals alignment. While principal-agent theory addresses the issues of aligning different goals, information science and general systems theory have explored the pure coordination aspects of organizing. Hierarchy is as fundamental to system-based approaches to the analysis of organizations as it is to the theory of bureaucracy; however, its rationale is quite different. Hierarchy is a feature of all complex systems to the extent that all complex systems (whether biological, mechanical, or social) can be decomposed into subsystems. The primary rationale for hierarchy in complex systems is that it promotes adaptation (Simon 1962).

This approach is useful in deriving principles for grouping activities and people within complex organizations and designing the relationships between the different groups. If hierarchy within a classical organization theory is defined in terms of delegation of authority, hierarchy within a systems perspective is defined by *modularity*. Activities and processes where coordination needs are most intense are organized into modules. This idea of hierarchies organized around intensity of interaction is fundamental to Simon's concept of the 'nearly-decomposable' systems (Simon 1962) and Williamson's 'Vertical decomposition principle' (Williamson 1975). The analysis of coordination and the articulation of the principles of organizing on the basis of intensity of coordination needs was articulated by Thompson (1967). Thompson classifies interactions from the loosest ('pooled' interdependence), through intermediate ('sequential' interdependence), to the most intense ('reciprocal' interdependence) and argues for the design of hierarchies based, first, upon identifying those tasks and activities characterized by reciprocal interdependence, then forming hierarchies around the successive levels of interdependence. The analysis of interdependence has been extended by the MIT Center for Coordination Science which proposes a framework for disaggregating organizational processes and classifying their dependencies in terms of resource usage (Malone et al. 1999).

The performance advantages of the hierarchical structure in terms of pure coordination arise from its potential for adaptability. The critical issue here is the 'loose-coupling' of modules such that individual modules can innovate and adapt while not having to coordinate continually with all other modules. The concept of

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loose-coupling between organizational units is closely associated with Weick (1976) who argued that, where departments are able to vary independently, this promotes sensitivity to detecting environmental variation, opportunistic adaptation to local circumstances, simultaneous adaptation to conflicting demand, and the maintenance of overall organizational stability while individual departments were adapting to outside change.

The best developed applications of the principles of hierarchical design based upon modularity and loose coupling are in relation to new product development. The problems presented by the need for fast, low-cost development of highly complex products such as automobiles, aircraft, and sophisticated computer software has spawned a number of empirical and theoretical studies of the organization of product development. The basic idea is that product design is based upon modules organized as subsystems and components, with standardized interfaces between them, and that the design process is organized in modular form to parallel the modular design of the product (Sanchez and Mahoney 1996; Bayliss and Clark 1997). Cusumano's account of how Microsoft's leadership in operating system and applications software has been supported by a modular approach to software design (1997) is a particularly interesting study in the advantages of modular, hierarchical structures in reconciling complexity, flexibility, and speed. The essential requirement for such modularization is the establishment of interfaces that permit the modules to work together. Key features of Microsoft's 'synch and stabilize' approach are imposition of rules which permit flexibility and innovation within teams, but ensure coordination of the project as a whole. Critical aspects of interface management include common development languages, clearly defined goals for each module in terms of features and functions, daily and weekly builds which occur at fixed times. The advantages of such a modular approach in permitting flexibility in terms of innovation and adjustment are apparent in the tortuous evolution of Netscape's Navigator browser. The tightly coupled structure of Netscape's initial version of Navigator and the frequency of 'spaghetti code' handicapped Netscape's ability to upgrade and extend the product. The resulting rewriting of Navigator around a modular architecture delayed upgrading the product allowing Microsoft to gain leadership in the market for browsers (Cusumano and Yoffie 1998).

Modular structures are an efficient response to the problem of knowledge integration. If the greater part of the knowledge used by firms is tacit, then it can be transferred only at high cost. Modularity is a means of achieving integration across a broad range of different knowledge bases while minimizing the costs of knowledge transfer. The essence of the efficiency benefit of modular structures is that each unit is capable of integrating knowledge among the individuals within the unit, while avoiding the need to continuously transfer knowledge between units. The critical issues for organizational design are then the organization of the activities of the organization into modules and definition of interfaces between

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the modules. The establishment of interfaces is critical. It is the interfaces that provide the basis for knowledge integration between modules.

In the case of products, interface design relates to the physical specification of how one component fits with another. Thus, standardizing the way in which a light bulb fits into a light socket permits light bulb makers and lamp manufacturers to work independently on design and innovation in each product area. Indeed, the success of such an interface in economizing on knowledge transfer between the two is indicated by the fact that light bulb manufacturers and lamp manufacturers are typically separate firms.

The work on modularity in organizational design has concentrated upon the organization of new product development. Here the basic principle is that product development is organized around the same modular structure of the product that is being developed: 'Microsoft divides projects in a way that mirrors the structure of its products. This helps teams create products with logical efficient designs and results in project organizations with logical, efficient groupings of people' (Cusumano 1997: 16–17). The challenge for the theory of organizational structure is to extend the principles of modularity to the design of organizations in general. The principles upon which modules are to be defined have been articulated fairly clearly. The essential principle is intensity of interdependence, which from a knowledge-based perspective means the integration of tacit knowledge in team-based tasks requiring organizational routines and/or joint problem-solving. Less progress has been made on the design of common interfaces that allow the different modules to work together. Sanchez and Mahoney (1996: 73) argue that 'Embedding coordination in fully specified and standardized component interfaces can reduce the need for much overt exercise of managerial authority across the interfaces of organizational units developing components, thereby reducing the intensity and complexity of a firm's managerial task'. But what are these 'standardized interfaces' between organizational units? For the most part, these interfaces are the standardized control systems through which overall coordination is achieved. In traditional conglomerates, such as Geneen's ITT or Hanson, the main interface linking the modules was the financial management system. Because each business was deemed to be technologically and strategically independent, the operation of each division as an independent entity with very little inter-divisional knowledge integration was highly feasible. Where higher levels of knowledge integration are required between modules, then interfaces need to be more complex and less standardized. Typically, the more closely related are the businesses of a corporation, then the greater the requirements for knowledge integration and the more complex are the integration

mechanisms. Thus, the typical multi-business corporation established formal integration through a financial control system, a strategic planning system, and a human resource planning and appraisal system. In addition, there are ad hoc and informal mechanisms including company meetings and conferences, systems for best practice transfer, and various 'extra-curricular' activities.

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8.4.6 The Distribution of Decision-Making within the Firm

What determines the optimal distribution of decision-making within an organization, in particular, the balance between centralization and decentralization? If, as we have already established, the quality of decision-making depends critically upon the co-location of decision-making rights with the knowledge relevant to that decision, then we can specify two approaches. Decision-making can be devolved to where the knowledge resides, or knowledge can be transferred to the desired seat of decision-making authority. The critical issue here is the mobility of knowledge. This depends upon whether the relevant knowledge can be codified. Where knowledge is fully codifiable (e.g. information on the inventories of different food products held by Safeway Stores), not only can the knowledge be transferred at low cost, it can be aggregated at a single location. Given economies of scale in decision-making, it is desirable to centralize such decisions. Hence, in most companies, treasury functions, including cash management and foreign exchange hedging, are centralized in a single corporate treasury. Similarly with the purchasing of standardized items by different departments within an organization: these activities too are easy to centralize. Conversely, highly tacit knowledge cannot be codified and is extremely difficult to transfer and to aggregate. Hence, where the relevant knowledge is tacit, then decision-making power must be distributed to where the tacit knowledge is located. For example, a financial planner's knowledge of the characteristics, circumstances, and preferences of his or her different customers is a combination of factual knowledge and tacit understanding. It is very difficult to codify and centralize this information. Hence firms of financial planners tend to devolve most decision-making about selling tactics to their individual financial planners.

Recent moves towards 'empowerment' have been justified primarily in terms of motivation and philosophies of individualism and self-determination. Our knowledge-based approach provides an efficiency-based argument for empowerment decisions: if knowledge is immobile, the quality and speed of decision-making are enhanced by delegating decision-making authority to those who possess the relevant knowledge. While the dominant trend of the past two decades has been decentralization, there have also been counteracting tendencies towards centralization resulting from developments in information technology and artificial intelligence that have facilitated codification and communication of knowledge. For example, centralization trends are apparent within fast-food chains where the information technology has encouraged a shift of decision-making over menus, pricing, and production scheduling from individual restaurant managers and franchisees to the corporate and regional headquarters.

However, as Jensen and Meckling (1998) point out, the optimal allocation of decision-making rights is not exclusively about the co-location of knowledge and decisions. There exists a trade-off between benefits of co-locating decision-making

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with knowledge and the costs of agency. As decision-making is devolved to those with the know-how relevant to those decisions, so the costs of agency arising from the inconsistent objectives of different organizational members tend to increase. Hence, they identify an optimal degree of decentralization where, at the margin, the cost reductions from distributing decision rights to individual employees is equal to the rising agency costs associated with moving decision rights further from the CEO's office.

8.5 Conclusion

The above discussion summarizes a few of the areas in which the knowledge-based view of the firm has offered illumination into the nature of the firm and the theory and practice of organizing. It is notable that, despite the profound philosophical issues concerning the nature of knowledge, some of the most important insights have derived from considering very basic characteristics of knowledge. For example, the distinction between explicit and tacit knowledge has yielded far-reaching implications for the strategy and organizational design.

At the same time, progress in developing a knowledge-focused theory of the firm has been constrained by a failure to clearly define concepts, and looseness in specifying the relationship between concepts. In addition, there is a risk that a number of directions taken in the knowledge-based approach to management and organization may turn out to be blind alleys. For instance, the present enthusiasm for organizational learning risks losing sight of the efficiencies in specialization in the creation, acquisition, and storage of knowledge. As Charles Leadbeater (2000) has recognized, the obverse of the knowledge-based society is the pervasiveness of ignorance. As the total stock of knowledge within society increases, so the proportion that lies within the knowledge domain of each individual must diminish. A key issue for companies as it is for society is the management of ignorance. How does an entrepreneur setting up an Internet-based florist business deal with the fact that he knows little about the technologies he is using: IP, WAP, agent-based software, or encryption

technology? A critical issue for companies is not to maximize learning among organizational members to clarify what areas of knowledge need to be acquired by each individual and to devise mechanisms that permit effective integration of different individuals' knowledge bases while minimizing cross-learning.

There are also areas where the impact of knowledge-based thinking has yet to make its mark. Knowledge-based approaches offer some hope for filling the

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widening gap between the evolution of organizational forms in the business sector and the capacity for organizational theory to explain them (Daft and Lewin 1993). For example, consideration of the characteristics and role of knowledge may assist the analysis and design of team-based organizations, as manufacturing and service companies increasingly emulate the team-based structure of project-based organizations such as consulting, engineering, and construction firms. Potential contributions of knowledge-based thinking to the design of teams and team-based organization include: first, principles of modularity that were discussed above; second, the role of knowledge integration among team members. If no one outside the team has access to the knowledge within the team or, by extension, to the design of the integration mechanisms within the team, then the implication is that effective knowledge integration within teams is likely to require a significant level of self-management.

Complex management issues also relate to the management of knowledge integration between teams. Even though we may view a modular hierarchy as a hierarchy of knowledge integration, it is also true that teams closer to the apex of knowledge integration cannot easily access the knowledge being integrated by teams closer to the base. Thus, new product development is an activity that must integrate knowledge from nearly all the functions of the firm: R&D, engineering, design, marketing, manufacturing, purchasing, finance, and so on. Yet, simply by having a product development organization formed of the heads of all the individual functions does not necessarily permit effective access to (or integration of) the knowledge available in each function. During the late 1980s and early 1990s, the US automobile companies moved away from product development by committees of functional-level heads in favor of semi-autonomous, multifunctional product development teams comprising lower-level personnel within each function, each product development team typically led by a 'heavyweight' product manager (Clark and Fujimoto 1991).

Key issues also relate to the boundaries of firms. Even though firms may be superior institutions for supporting mechanisms for knowledge integration, increasingly firms are recognizing that the domain of knowledge they can effectively encompass is limited, and they must rely on strategic alliances for acquiring the full range of knowledge resources that are needed within their business. However, knowledge-based considerations are also pointing to the effective design of such alliance arrangements.

References

Almeida, P., Song, J., and Grant, R. M. (2000). 'Are Firms Superior to Alliances and Markets? An Empirical Test of Cross-Border Knowledge Building'. Working paper, School of Business, Georgetown University, Washington, DC.

end p.223

Arrow, K. (1962). 'Economic Welfare and the Allocation of Resources for Invention', in National Bureau of Economic Research, *The Rate and Direction of Inventive Activity*. Princeton: Princeton University Press, 609–25.


Arthur, B. W. (1994). *Increasing Returns and Path Dependency in the Economy*. Ann Arbor: University of Michigan Press.

Barley, S. R., Freeman, J., and Hybels, R. C. (1992). 'Strategic Alliances in Commercial Biotechnology', in N. Nohria and R. Eccles (eds.), *Networks and Organizations*. Boston: Harvard Business School, 311–47.

Barney, J. B. (1991). 'Firm Resources and Sustained Competitive Advantage'. *Journal of Management*, 17/1: 99–120. 

———. (1996). 'The Resource-Based Theory of the Firm'. *Organization Science*, 7: 469–76. 

Bayliss, C. Y., and Clark, K. B. (1997). 'Managing in an Age of Modularity'. *Harvard Business Review*, Sept.–Oct.: 54–66.

Brown, J. S., and Duguid, P. (1991). 'Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning and Innovation'. *Organization Science*, 2: 40–57. 

Burton-Jones, A. (2000). *Knowledge Capitalism*. Oxford: Oxford University Press.

Business Week (2000). 'The Business Week Global 1000', European edition, 10 July: 44–85.

Clark, K. B., and Fujimoto, T. (1991). *Product Development Performance*, Boston: Harvard Business School Press.

Conner, K. R., and Prahalad, C. K. (1996). 'A Resource-Based Theory of the Firm: Knowledge versus Opportunism'. *Organization Science*, 7: 477–501. [Link](#)

Cusumano, M. A. (1997). 'How Microsoft Makes Large Teams Work Like Small Teams'. *Sloan Management Review*, Fall: 9–20.

— and Yoffie, D. B. (1998). *Competing on Internet Time: Lessons from Netscape and its Battle with Microsoft*. New York: Free Press.

Daft, R. L., and Lewin, A. Y. (1993). 'Where are the Theories for the "new organizational forms"? An Editorial Essay', *Organization Science*, 4: i–vi.

Davis, Stan, and Meyer, Chris (1998). *Blur*. Baltimore: Addison-Wesley.

Demsetz, H. (1991). 'The Theory of the Firm Revisited'. *The Nature of the Firm*. New York: Oxford University Press, 159–78.

— (1995). *The Economics of the Business Firm: Seven Critical Commentaries*. Cambridge: Cambridge University Press.

Drucker, P. F. (1993). *Post-Capitalist Society*. New York: HarperBusiness.

Edvinsson, L., and Malone, T. (1997). *Intellectual Capital*. New York: HarperBusiness.

Foss, N. J. (1996). 'Knowledge-Based Approaches to the Theory of the Firm: Some Critical Comments'. *Organization Science*, 7/5 (Sept.–Oct.): 470–85. [Link](#)

Galbraith, J. (1973). *Designing Complex Organizations*. Reading, Mass.: Addison-Wesley.

Gersick, C. J. G., and Hackman, J. R. (1990). 'Habitual Routines in Task-Performing Groups'. *Organizational Behavior and Human Decision Processes*, 47: 65–97. [Link](#)

Ghoshal, S., and Moran, P. (1996). 'Bad for Practice: A Critique of Transaction Cost Theory'. *Academy of Management Review*, 21: 13–47. [Link](#)

Grant, R. M. (1991). 'The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation'. *California Management Review*, 33/Spring: 114–35.

— (1996a). 'Toward a Knowledge-Based Theory of the Firm'. *Strategic Management Journal*, 17: 109–22.

end p.224

— (1996b). 'Prospering in Dynamically-Competitive Environments: Organizational Capability as Knowledge Integration', *Organization Science*, 7: 375–87. [Link](#)

— (2000). 'Shifts in the World Economy: The Drivers of Knowledge Management', in D. Chauvel and C. Despres (eds.), *Knowledge Horizons: The Present and the Promise of Knowledge*. Oxford: Butterworth-Heinemann.

— and Baden-Fuller, C. (1995). 'A Knowledge-Based Theory of Inter-Firm Collaboration'. *Academy of Management Best Paper Proceedings*.

— — (1999). 'Knowledge and Economic Organization: An Application to the Analysis of Interfirm Collaboration', in G. Von Krogh, I. Nonaka, and T. Nishiguchi (eds.), *Knowledge Creation: A Source of Value*. London: Macmillan.

Gulati, R. (1995). 'Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances'. *Academy of Management Journal*, 38: 85–112. [Link](#)

Hagel, J., and Singer, M. (1999). 'Unbundling the Corporation'. *Harvard Business Review*, Jan.: 60–9.

Hayek, F. A. (1947). 'The Use of Knowledge in Society'. *American Economic Review*, 35: 519–32.

Huber, G. P. (1991). 'Organizational Learning: The Contributing Processes and Literatures'. *Organization Science*, 2: 88–115. [Link](#)

Hutchins, E. (1991). 'Organizing Work by Adjustment'. *Organization Science*, 2: 14–39. [Link](#)

Jensen, M. C., and Meckling, W. H. (1998). 'Specific and General Knowledge and Organizational Structure', in M. C. Jensen (ed.), *Foundations of Organizational Strategy*. Cambridge, Mass.: Harvard University Press, 103–25.

Kogut, B., and Zander, U. (1992). 'Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology'. *Organization Science*, 3: 383–97. [Link](#)

—— (1996). 'What Firms Do: Coordination, Identity, and Learning'. *Organization Science*, 7: 502–18. [Link](#)

Krogh, G. V., Roos, J., and Slocum, K. (1994). 'An Essay on Corporate Epistemology'. *Strategic Management Journal*, 15/Summer Special Issue: 53–71.

Leadbeater, C. (2000). *The Weightless Society*. London: Texere.

Leidner, R. (1993). *Fast Food, Fast Talk: Work and Routinization of Everyday Life*. Berkeley: University of California Press.

Leudar, I. (1992). 'Sociogenesis, Coordination and Mutualism'. *Journal for the Theory of Social Behavior*, 21: 197–220. [Link](#)

Levitt, B., and March, J. G. (1988). 'Organizational Learning'. *Annual Review of Sociology*, 14: 319–40. [Link](#)

Liebeskind, J. (1996). 'Knowledge, Strategy, and the Theory of the Firm'. *Strategic Management Journal*, 17/Winter Special Issue: 93–108.

Lorenzoni, G., and Baden-Fuller, C. (1994). 'Creating a Strategic Centre to Manage a Web of Partners'. *California Management Review*, 37/3: 146–63.

Machlup, F. M. (1980). *Knowledge: Its Creation Distribution and Economic Significance*. Princeton: Princeton University Press.

Malone, T. W, Crowston, K., Lee, J., and Pentland, B. (1999). 'Tools for Inventing Organizations: Toward a Handbook of Organizational Processes'. *Management Science*, 45/3: 425–42. [Link](#)

March, J. G. (1991). 'Exploration and Exploitation in Organizational Learning'. *Organization Science*, 2/1: 71–87. [Link](#)

—— and Simon, H. (1958). *Organizations*. New York: Wiley.

end p.225

Milgrom, P., and Roberts, J. (1992). *Economics, Organization and Management*. Englewood Cliffs, NJ: Prentice-Hall.

Nelson, R., and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Belknap.

Nonaka, I. (1990). 'Redundant, Overlapping Organization: A Japanese Approach to Managing the Innovation Process'. *California Management Review*. Spring: 27–38.

—— (1994). 'A Dynamic Theory of Organizational Knowledge Creation'. *Organization Science*, 5: 14–37. [Link](#)

—— and Takeuchi, H. (1995). *The Knowledge-Creating Company*. New York: Oxford University Press.

Nooteboom, B. (1996). 'Transaction Costs and Technological Learning', in J. Groenewegen (ed.), *Transaction Cost Economics and Beyond*. Boston: Kluwer Academic Publishers, 327–50.

Penrose, E. T. (1959). *Theory of the Growth of the Firm*. New York: Wiley.

Pentland, B. T., and Rueter, H. (1994). 'Organizational Routines as Grammars of Action'. *Administrative Science Quarterly*, 39: 484–510. [Link](#)

Perrow, C. (1967). 'A Framework for the Comparative Analysis of Organizations'. *American Sociological Review*, 32: 194–208. [Link](#)

Polanyi, M. (1962). *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago: University of Chicago Press.

—— (1966). *The Tacit Dimension*. New York: Anchor Day.

Powell, W. W. (1998). 'Learning from Collaboration: Knowledge and Networks in the Biotechnology and Pharmaceutical Industries'. *California Management Review*, 40/3: 228–40.

Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May–June: 79–91.

Prencipe, A. (1997). 'Technical Competencies and Products' Evolutionary Dynamics: A Case Study from the Aero Engine Industry'. *Research Policy*, 25: 1261–76. [Link](#)

Quinn, J. B. (1992). *Intelligent Enterprise*. New York: Free Press.

Ring, P. S., and Van de Ven, A. H. (1992). 'Structuring Cooperative Relationships between Organizations'. *Strategic Management Journal*, 13: 483–98. [Link](#)

Romer, P. (1998). 'The Soft Revolution'. *Journal of Applied Corporate Finance*, 11/2 (Summer): 8–9.

Sanchez, R., and Mahoney, J. T. (1996). 'Modularity, Flexibility, and Knowledge Management in Product and Organisation Design'. *Strategic Management Journal*, 17/Winter Special Issue: 63–76.

Shapiro, C., and Varian, H. (1999). 'Information Rules'. *California Management Review*, 41/2 (Spring): 8–32.

Simon, H. A. (1962). 'The Architecture of Complexity'. *Proceedings of the American Philosophical Society*, 106: 467–82.

— (1981). *The Sciences of the Artificial* (2nd edn). Cambridge, Mass.: MIT Press.

— (1991). 'Bounded Rationality and Organisational Learning'. *Organization Science*, 2: 125–34. [Link](#)

Simonin, B. L. (1997). 'The Importance of Collaborative Know-how: An Empirical Test of the Learning Organisation'. *Academy of Management Journal*, 40: 1150–74. [Link](#)

Smith, A. (1937). *An Inquiry into the Nature and Consequences of the Wealth of Nations* (Modern Library edn). New York (original edition 1776).

end p.226

Spender, J.-C. (1989). *Industry Recipes: An Inquiry into the Nature of Managerial Judgment*. Oxford: Blackwell.

— (1992). 'Limits to Learning from the West: How Western Management Advice may Prove Limited in Eastern Europe'. *International Executive*, 34/5: 389–410.

— (1994). 'Organizational Knowledge, Collective Practices and Penrose Rents'. *International Business Review*, 3: 353–67. [Link](#)

— (1995). 'Organizational Knowledge, Collective Practices and Penrose Rents'. *International Business Review*, 3: 353–67. [Link](#)

Stewart, T. (1997). *Intellectual Capital: The New Wealth of Organizations*. New York: Doubleday.

Taylor, F. W. (1916). 'The Principles of Scientific Management'. Bulletin of the Taylor Society, Dec. Reprinted in J. M. Shafritz and J. S. Ott, *Classics of Organization Theory* (Chicago: Dorsey Press, 1987), 66–81.

Taylor, Jim, and Wacker, Watts (1999). *The 500 Year Delta: What Happens after What Comes Next*. New York: HarperBusiness.

Teece, D. J. (1992). 'Competition, Cooperation, and Innovation'. *Journal of Economic Behavior and Organization*, 18: 1–25. [Link](#)

Thompson, J. D. (1967). *Organizations in Action*. New York: McGraw-Hill.

Van De Ven, A. H., Delbecq, A. L., and Koenig, R. (1976). 'Determinants of Coordination Modes within Organizations'. *American Sociological Review*, 41: 322–38. [Link](#)

Weick, K. E. (1976). 'Educational Organizations as Loosely-Coupled Systems'. *Administrative Science Quarterly*, 21/Mar.: 1–19. [Link](#)

— (1979) 'Cognitive Processes in Organizations', in B. M. Staw (ed.), *Research in Organizational Behavior*, Vol. 1. Greenwich, Conn.: JAI Press, 41–74.


Williamson, O. E. (1975). *Markets and Hierarchies*. Englewood Cliffs, NJ: Prentice-Hall.

— (1996). 'Economic Organization: The Case for Candor'. *Academy of Management Review*, 21: 48–57. [Link](#)

Winter, S. G. (1987). 'Knowledge and Competence as Strategic Assets', in D. J. Teece (ed.), *The Competitive Challenge*. Cambridge, Mass.: Ballinger, 159–84.

— 'Four Rs of Profitability: Rents, Resources, Routines, and Replication', in C. Montgomery (ed.), *Resource-Based and Evolutionary Theories of the Firm: Towards a Synthesis*. Hinham, Mass.: Kluwer, 147–77.

Womack, J., Jones, D., and Roos, D. (1990). *The Machine that Changed the World*. New York: Rawson Associates.

Zajac, E. J., and Olsen, C. P. (1993). 'From Transaction Cost to Transactional Value Analysis: Implications for the Study of Interorganizational Strategies'. *Journal of Management Studies*, 30: 131–45. 

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9 Analysing the Environment

Robert Pitkethly

9.1 The Strategic Environment

THIS chapter considers the analysis of the firm's strategic environment. Its objectives are to examine the concept of the environment in the context of strategic management, the role of the environment in the development of the field of strategic management, the implications of the environment for strategic management, and the role and analysis of the common strategic environment and of the industry and business unit environment.

9.1.1 Definitions

In the very broadest sense 'the environment' means that which is external to and within which some entity exists. Defining what is external though requires a boundary. John Donne in 1634 (Donne 1634) said very memorably that no one is 'an island entire unto themselves' and refuted the idea that one could claim to be isolated from one's fellow human beings. Yet boundaries do unfortunately play a significant role in societies, for example, in Japanese society's distinction between what is within (*uchi*) and what is outside (*soto*) a group (Nakane 1970). In the field of the economics of organizations, defining the boundaries of the firm is an interesting area of debate

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(Holmstrom and Roberts 1998) going back to the work of Coase (1937) and subsequent work by Williamson (1975, 1985) on transaction costs. In the case of strategic management of the firm though, the distinction between what lies within and what lies without the firm forms a fundamental analytical divide. In practice this division may sometimes seem artificial and the boundary hard to distinguish. Nevertheless, if in discussing the environment we take the individual organization or firm as our reference point, the boundaries of the firm conveniently define on the one side an internal environment within which its members work and the firm's resources are organized and on the other the external environment outside those firm boundaries which we consider in this chapter.

The external environment we are concerned with comprises the whole set of relevant strategic conditions surrounding the firm. Following Humpty Dumpty's dictum that 'a word means what I want it to mean' (Carroll 1960), a practice not uncommon in the field of strategy, this can be termed the *strategic environment*. Within this overall definition we can define a number of progressively narrower subsets of environmental conditions.

Strategic management is concerned with, amongst other things, how firms relate to each other, whether by competing, cooperating, or just coexisting. Consequently, the most relevant distinction to be drawn amongst potential subsets of the strategic environment surrounding the firm is between those factors and conditions which affect all related firms—what can be called the overall or *common strategic*

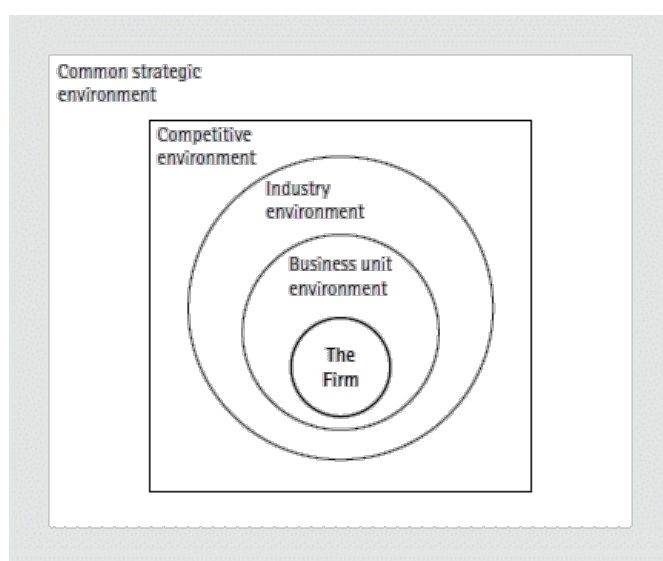


Fig. 9.1. The Strategic environment

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environment and the somewhat narrower range of factors and conditions which primarily comprise the industries the firm competes in and which we might call the *competitive environment*. Even within this definition of the competitive environment, we can include even narrower environments such as that of the particular industry within which a firm operates including within that strategic groups of companies it forms part of. At the lowest level we have the business unit environment which comprises the immediate competitive surroundings of the firm comprising those firms with which it competes for customers and added value.

9.1.2 Cognitive Views of the Environment

The importance of considering a firm's surroundings when formulating its strategy might be seen as obvious and analysis of the strategic environment thought of as essential to that process. Such a view and the definitions of the environment just outlined to some extent assume that the environment is an objective reality. However, within the field of strategy there is a school of thought which questions not just the objective meaning of the term 'environment' but also whether views of a firm's environment, or even the environment itself can be anything but subjective. This view forms part of what Mintzberg and others have labelled the 'Cognitive School' of strategic thought (Mintzberg, Ahlstrand, and Lampel 1998). In this, descriptions of the environment, and any strategies based on them, are viewed as saying as much if not more about their authors and their viewpoints as about any objective reality. In the extreme one is led to a view of the environment, and even strategy in general, as something lacking much basis in reality and more based on the perceptions and imaginary constructs of the strategists involved.

Even the most sceptical observer of such postmodernist views of the environment and strategy would have to admit that managers' views can be subjective. Managers who are gifted enough to view their firm's circumstances and even their own role totally objectively are rare enough and an awareness that one's viewpoint may colour one's description of what one sees is undoubtedly wise. As Robert Burns put it in his poem, 'O, wad some Power the giftie gie us to see oursels as others see us!' (Burns 1969).

If we prefer to see the environment as a concrete reality but one often perceived imperfectly by managers, then one area of concern with the understanding managers have of their environment lies in those fields where managers and others have to interpret information and report about their environment. Here the concern is not so much with whether or not an external objective environment exists, as with how managers interpret reports about it. In short, understanding the social psychology of information processing, and the bounded rationality (March and Simon 1958; Simon 1976) managers are subject to, can be crucial. Work in this area and on such issues as judgemental biases (Tversky and Kahneman 1974) has implications in

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a wide range of areas, for example, interpretation of weather forecasts (Stewart 1997) In such cases the interpretation put on information received about the environment and the ability of those receiving the information to act correctly in the light of the information received is critical. In exactly the same way managers receiving information about their environment face similar problems of interpretation. Perhaps the most commonly encountered problems of interpretation in the field of management concern accounting where, even without any deliberate attempt at 'creative' accounting, attempts to communicate reality can instead be seen as attempts to construct reality (Hines 1988).

There are in addition to environmental analysis other areas in the field of strategy where the cognitive school can be found, for example, the work of Schwenk (1988) in dealing with strategic decision-making and strategic change. Schwenk uses cognitive, organizational, and political perspectives to analyse strategic change. Rajagopalan and Spreitzer (1996) use rational learning and cognitive lenses to examine strategic change. More generally, Chaffee (1985) describes linear, adaptive, and interpretative views of strategy. In all of these, there is at least one view which falls within the cognitive school of strategy.

In the debate as to whether the environment is an objective or subjective phenomenon though, Smircich and Stubbart (1985) provide a useful analysis of how the environment might be viewed as objective, perceived, or enacted. The objective environment comprises an external environment that is in reality 'out there' and capable of being described accurately and objectively. The perceived environment occurs where an objective external environment is subject to varying interpretations which may or may not be correct. Finally there is the enacted environment where there is no objective external environment, only the interpretations that people construct around their experience. This last view is compared by Smircich and Stubbart to the names given to constellations of stars where the only links between the stars in the constellation exist in the mind of their human beholders. In these latter two views the emphasis is not on any external reality which it is essential to understand correctly. The emphasis is instead on the interpretation managers put on what they perceive and the 'environments' they themselves construct. In such a view the idea that firms should adapt to their environment is potentially erroneous, since the firms themselves create the environment. Instead, considering the environment involves creating original

and distinctive environments and metaphors as much as distinctive competences or strategies.

If 'the environment' were merely a social construct one might well view attempts at objective analysis of the environment as redundant. The environment which surrounds a company, however, can play a critical role in the firm's success or failure. It is thus possible to err too far in the direction of considering the environment as a relative and not absolute concept and in doing so fail to appreciate the environment's strategic implications. The case of the Sinclair C5 provides a clear case of failure due to management misperceptions of the environment.

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The Sinclair C5 was a battery-powered but, more often than not, pedal-assisted electric tricycle with a plastic bodyshell designed with the help of Lotus, the sports car specialists. The C5 also had a novel recumbent design which placed the rider's head at about the height of an articulated lorry's hubcaps. It was intended by the entrepreneur Sir Clive Sinclair to be the answer to modern transport problems. Instead, when the C5 was launched in 1985, it was shunned by a safety conscious and sceptical public. They were further discouraged by over-optimistic technical claims for the performance of its conventional lead-acid battery-powered washingmachine motor. The C5 rapidly became a byword for abject product failure (Adamson and Kennedy 1986). Those within the company may have been convinced of its potential success at one stage. More useful would have been an ability to see the properties of the C5 objectively and as customers saw them in the context of the real world. Doing so would have saved its developers a great deal of money. The point is that managers' subjective views of a product and of the external environment can lead to costly errors. At the same time those errors may only become apparent when the misconception of the strategic situation finally meets with concrete reality. Management and customer perceptions were obviously critical to the case but those who say the conflict in the case of the C5 was just between the company's and the customer's constructs rather than any objective reality should be encouraged to try riding a C5 in heavy traffic.

There are obviously many cases where hindsight might lead to a conclusion that earlier business decisions lacked not just foresight but any general awareness of the environment they were made in. However, the problem of failure to take proper account of the environment in making strategic decisions can be seen in many situations. In military strategy misperceptions or a lack of an ability to see situations objectively can also lead to disaster. Bernard Dixon in his book *On the Psychology of Military Incompetence* (1994) describes how military incompetence can be characterized by a number of factors including notably (emphasis in original):

3. *A tendency to reject or ignore information* which is unpalatable or which conflicts with preconceptions.
4. *A tendency to underestimate the enemy* and overestimate the capabilities of one's own side....
8. *A failure to make adequate reconnaissance.*

One might add that even heroes were not immune to such failings and Nelson's loss of his arm and failure to capture Tenerife in 1797 might be ascribed precisely to overconfidence, underestimating the enemy, and overestimating his own forces' capabilities (Pocock 1988).

Purely constructivist views of the environment are thus incomplete, and if any element of a cognitive view is to be allowed, it is better confined to problems in interpreting the environment and to the encouragement of new ways of thinking about strategic problems. Those who continue to prefer metaphor to reality are, as

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9 Analysing the Environment

Mintzberg, Ahlstrand, and Lampel (1998) suggest, keen on quoting Weick's story of soldiers lost in the Alps who find their way to safety aided by a map of the Pyrenees (Weick 1990, 1995) As Mintzberg et al. point out though, whilst any map might aid morale, the number of cliffs and crevasses in the Alps make the likelihood of the wrong map helping lost travellers slim. One might add that there is an inherent bias towards preserving only the stories of wrong map users who survive. One has to concede therefore that an ability to understand the reality and implications of one's surrounding environment clearly and not through some darkened glass is an essential first step on the path to strategic success.

To summarize, we should not dismiss out of hand the interpretative school's idea that in trying to understand their environment managers may reach differing interpretations and that some of those interpretations are going to lead to commercial disaster in much the same way that misunderstanding other strategic situations can. Equally, it is sometimes the case that original and perspicacious interpretations of information received about one's environment can lead managers to resounding business success. Thus, whilst one must remain alert to any inherent biases, whether positive or negative, one must also keep the cognitive view of the environment in proportion. Constructivist and interpretative views of the environment should not distract managers from attempting to analyse their firm's surroundings correctly. Even if some studying strategy do not, most managers will, like Dr Johnson kicking stones to refute Bishop Berkeley's idea of the physical world as a figment of man's imagination (Boswell 1970), view the harsh realities of life outside their company as all too real and worth intense scrutiny to avoid their being tripped up.

For most managers, interpreting the signs of the times and the implications for their firm correctly is crucial and if they fail to analyse a firm's environment correctly they cannot begin to build any soundly based strategy. It is after all better to start a journey with an accurate and appropriate map, to hold it the right way up and understand where one is on it than use any map, which like some medieval cartographer's imaginings, better reflects thoughts than reality.

9.1.3 Dilemmas Surrounding the Environment

Even if we accept that understanding the external environment is an essential element in formulating strategy, we have also to understand that its role in strategy formulation lies on one of the key boundaries within the field of strategy. As mentioned above, the distinction between what lies within and what lies without the boundaries of the firm forms a fundamental divide within the field of strategic management. There are several such issues within the field of strategy. The debate as to whether strategy formulation is primarily a deliberate or an emergent process (Mintzberg and Waters 1985), the distinction between business-level and corporate-level

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strategy, and whether strategy is something that has single or multiple objectives (Whittington 1993) are just a few. Particular dilemmas concerning the environment include, as has already been discussed, whether the environment is a subjective or objective phenomenon and, as will be discussed later, deciding whether it determines strategic choice or merely provides a context for it.

The question whether that which is internal to the firm is more important than that which lies outside the firm is a key question which is closely associated with the development of strategy as a field of study. It is linked in particular with the progression from an emphasis on Industry Structure analysis as favoured by Porter's earlier work (Porter 1980) to an emphasis on the Resource-Based View of the firm (Wernerfelt 1984) and later work on Competences (Prahalad and Hamel 1990). Internal and external views of strategy are often juxtaposed with emphasis being put on one or the other as a determinant of success, yet whilst both are undoubtedly relevant to a firm's strategy it is helpful to look at how the role of the environment in strategy formulation fits into this debate.

9.2 The Environment's Role in the Development of Strategic Management

The history of strategy is dealt with in detail elsewhere in this book (see Chapter 2). However a key element in the development of strategic thinking has been how successive approaches to strategy formulation have treated the role of the firm's external environment.

9.2.1 The Structure, Conduct, Performance Model

There are many sources for the field of strategy, but those in the field of economics can be found primarily in the field of industrial organization economics. As Hay and Morris (1991) have described, modern industrial organization economics has developed from two separate streams of deductive theory and empirical work which both had origins in the combination of theory and practical aspects that characterized Marshall's (1890, 1919) work. The gulf between a deductive theory of the firm and a more descriptive approach to studying firms and industries began to be bridged by the work of Chamberlin (1933), which shifted the emphasis more towards reconciling economic theory with empirical evidence. Chamberlin's work provided amongst other things a basis for discussing market structure, and thus for

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the work of Bain (1959) and Mason (1957) discussing the relationship between structure and performance. Whilst one can arguably also find origins of thinking about business strategy in the field of game theory (von Neumann and Morgenstern 1944) and its antecedents; the work of Bain and Mason and the development of the Structure, Conduct, Performance (SCP) model is seen as one of the key sources of thinking about business strategy from an economics perspective.

According to the SCP model, basic factors concerning economic and technical conditions give rise to industry structure. The resulting industry structure is characterized by factors such as the numbers of buyers and sellers, the concentration of the industry, levels of product differentiation, extent of vertical integration, cost structures, barriers to entry into the industry, and other factors. This industry structure in turn determines the conduct of firms. Firms' conduct is defined in terms of factors such as their pricing behaviour, product strategies, advertising, research and innovation, plant investment, legal tactics, and other factors which all together contribute to the performance of the industry which is defined in economic terms relating to the whole industry.

From the viewpoint of environmental analysis, the SCP model outlined is important, as it puts a high value on the analysis of industry structure as a critical determinant of profitability. As Porter (1981) has outlined, the model has limitations when viewed from a business policy or strategy perspective. The essence of these is that from the SCP perspective it is the industry which is central and determines performance. From a strategy/business policy perspective, it is the firms making up the industry that are central to assessing performance

and indeed the firms' conduct can sometimes affect structure and thus performance (Scherer and Ross 1990).

In comparing an economics-based view of the firm with a strategy/business policy based perspective, one might say that the emphasis in industrial organization economics was to concentrate more on promoting competition and reducing entry barriers leading to reduced profits from a private perspective but possibly greater social welfare. In contrast the whole emphasis of the strategy/business policy based perspective is that of the individual firm where success is usually defined in terms of the ability of the firm to increase entry barriers, obtain competitive advantage, overcome the competition, and increase profits. In effect the strategic perspective is merely the economic view turned upside down. However, to contrast the two

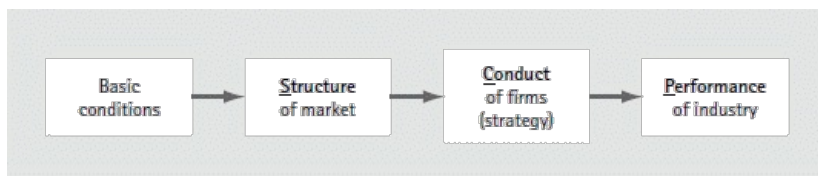


Fig. 9.2. The SCP model

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so strongly implies that such objectives are incompatible and seems to assume incorrectly that there is no possibility of a firm having both social and corporate objectives. A socially successful industry is after all composed of individually successful companies and the challenge is to avoid promoting corporate benefits at the expense of social welfare whilst promoting social welfare with the help of corporate interest. The problem lies perhaps more with the value systems of the individuals (whether managers, shareholders, employees, customers, or others) involved with the corporation than with the systems the corporation is involved in.

From the point of view of analysing the environment, the SCP model is important because it puts an emphasis on the importance of studying Industry Structure as a critical element in determining performance. At the same time the general factors which lead to that Industry Structure will also need to be studied—what has earlier been termed the common strategic environment. However the limitations of the SCP model (Hay and Morris 1991), in particular its deterministic slant (Porter 1981), highlight the need to consider the actions of individual firms within the industry and their ability to alter industry structure. Bain may have felt that strategic choice did not unduly affect industry structure but later work (Comanor and Wilson 1974) and Porter's work (1980, 1981) raises the possibility of feedback and of performance and conduct affecting industry structure (Scherer and Ross 1990).

Thus, in addition to studying the overall common strategic environment, we also need to study the competitive environment at both the industry structure level and at the business unit level. Whilst none of these differing aspects of the external environment can be ignored, the importance of the individual firm points towards analysis of the external environment as a whole being inadequate on its own and requiring some complementary internal analysis of the firm, as provided by the resource-based view of the firm (Wernerfelt 1984) and study of firm competences (Prahalad and Hamel 1990). However, the inclusion of firm strategy and performance and by implication managerial strategic choice as influences on *industry* structure breaks the deterministic hold of industry structure on performance in the SCP model. This is in some senses analogous to the inclusion of strategic choice in the determination of firm *organizational* structure as described by Child (1972, 1997), in contrast to earlier more deterministic and contingent approaches.

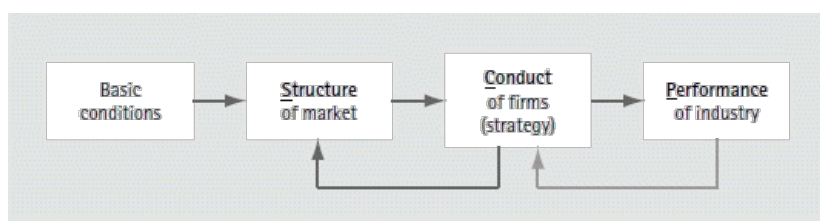


Fig. 9.3. The SCP model with feedback

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9.2.2 Comparisons of Business Unit and Industry-Level Effects

The discussion of different levels within the competitive environment raises the question of the relative importance of the role of the external environment and in particular the industry, on the one hand, and on the other, the importance of firm-level effects in determining

profitability. This debate has been pursued by a number of researchers, notably Rumelt, who found in favour of business unit effects, and McGahan and Porter, who pointed out that industry-level effects were not negligible. Rumelt's (1991) research followed research by Schmalensee (1985) which concluded that industry effects were important and that industry-level analysis was justified. Schmalensee, however, only used one year's worth of data and Rumelt using four years of data distinguished between variance among stable industry effects and the variance of annual fluctuations. Rumelt found that only 8 per cent of the variance in business unit returns was accounted for by stable industry effects and furthermore that stable business unit effects accounted for 46 percent of the variance in business unit returns. Corporation-level effects were found to account for even less of the variance (1–2 per cent) than industry-level effects. Whilst this has been taken to support the resource-based view of the firm with its emphasis on internal resources of the business, in reality it more supports the general primacy of the firm as opposed to any larger aggregated unit such as the corporation or the industry being that which accounts for most of the variance in returns between firms.

Some years later McGahan and Porter (1997) revisited this issue. McGahan and Porter's data differed from Rumelt's in covering all sectors of the US economy rather than just manufacturing as Rumelt's study did. They also allowed for transient effects of all sorts and not just transient industry effects. Like Rumelt's study, though, they covered several years. However unlike Rumelt, who studied business unit effects, they studied business segments (defined by industry SIC codes). McGahan and Porter found that in contrast to Rumelt, 2 per cent of the variance in business segment profits were accounted for by macroeconomic year effects, almost 19 per cent by stable industry effects (comparable with Schmalensee's figure of 19.6 per cent but greater than Rumelt's 8.3 per cent), 4 per cent by corporate membership effects, and 32 per cent due to stable business segment effects. McGahan and Porter's findings generally supported Schmalensee's results and the importance of the industry and showed that differences between manufacturing and other industries could affect results. McGahan and Porter also suggested that industry-level effects were more persistent over time than business unit effects.

This debate not only shows the difficulties of conducting business research but also leads to the conclusion that industry-level, business unit effects, and the common business environment or macro-environment are all relevant factors to consider. In the short term business unit effects are likely to be greater than industry-level

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effects which are in turn likely to be greater than common business environment effects. In the longer term though, the persistence of these effects may be inversely proportional to their effect on performance.

9.2.3 The LCAG Model and Internal and External Firm Views

The debate about the relative importance of business unit or industry-level effects which developed from the SCP model and by implication how important it is to study the industry-level or business unit competitive environment should be seen as something that developed alongside other views of the factors that determine business strategy. In particular the model developed by Learned, Christensen, Andrews, and Guth (LCAG) (1969) might be seen as another key origin of business policy/strategy. In this model a firm has to balance the four elements of company internal strengths and weaknesses, external industry opportunities and threats, the personal values of those directing the firm, and finally broader external social expectations.

The LCAG model was developed into a series of analytical processes which managers might use in thinking about firm strategy. Ansoff's book on corporate strategy first published in 1965 (Ansoff 1988) is an example of such writing. Perhaps the key example of the persistence of the LCAG model is the abbreviated version commonly referred to as 'SWOT' analysis with its concentration on internal strengths and weaknesses and external opportunities and threats. Both SWOT analysis and its predecessors are widely used in the practitioner area of the field of strategy. This juxtaposition of internal and external factors mirrors the debate between industry and business unit effects on returns and the debate as to the relative importance

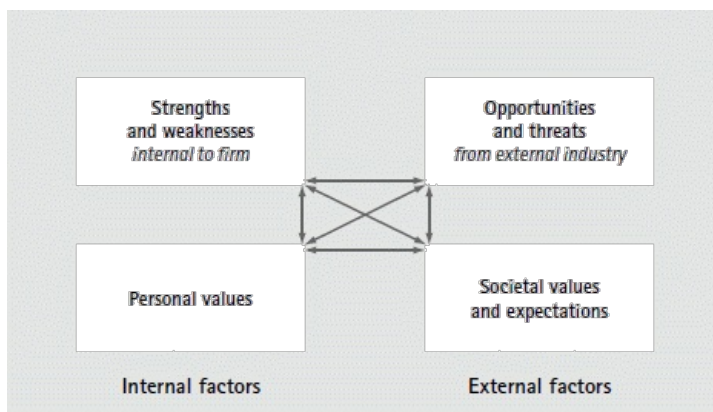


Fig. 9.4. Elements of the LCAG model

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of industry analysis and the resource-based view of the firm. The LCAG model has also been taken as the exemplification of the 'Design School' of strategy (Mintzberg, Ahlstrand, and Lampel 1998). In this more classical view of strategy (Whittington 1993) the environment is something which a company has to fit in with and match its resources to in order to meet threats, exploit opportunities, and succeed; something which again emphasizes the importance of environmental analysis.

9.2.4 Environmental Scanning

The development of the external element of SWOT analysis encouraged by the emphasis on industry structure meant that in the earlier development of the field of strategy there was a considerable emphasis on the field of environmental analysis. This included what have been described as environmental analysis, environmental scanning, issues analysis, issues management, and the like and were characterized by books and articles throughout the late 1960s and 1970s with titles like *Scanning the Business Environment* (Aguilar 1967), 'Analysis of the Business Environment' (Segev 1979), and 'Environmental Scanning—The State of the Art' (Thomas 1980). Later on with the rise of industry analysis and the beginnings of interest in the resource-based view of the firm, the primacy of environmental analysis began to wane. By the mid-1980s writing on environmental analysis was more to question why it no longer held a key position in companies (Engledow and Lenz 1985). What the latter more questioning research shows is that as an element in the formulation of a firm's strategy, environmental analysis is important but must be tied to current actions. The function in a firm in many senses runs a tight rope between incurring costs to analyse trends which might affect the business in the future but which have no immediate impact on returns and concentrating on analysing issues of immediate concern at the risk of ignoring the larger picture which may be more critical to the long-term success of the company. In the longer term those firms that are better at interpreting their environment correctly are almost certainly going to perform better than those who cannot but that success will only come if the organization can afford to look beyond its immediate problems to the longer term. Ultimately, a concentration on the longer term view has led to techniques such as scenario planning (see Chapter 11) and other forward-looking techniques where the aim is not so much to assess the current as foresee the future state of the environment.

9.2.5 Industry Analysis

Perhaps the central strand in the development of strategy flowing from the development of the SCP paradigm was the emphasis on Industry Structure analysis that it

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gave rise to, primarily through the work of Michael Porter. As pointed out above, one might interpret Porter's industry analysis as being a contrary perspective on the implications of industrial organization economics; in effect, one leading to a search for imperfections in competition and possibilities for exploiting sustainable competitive advantages. Following Porter's five forces model (Porter 1980) throughout the 1980s until the emphasis shifted to the internal focus of the resource-based view and analysis of firm competences, the key to strategic analysis was seen to be analysis of industry structure and the decision as to which industry was the most attractive.

The focus of attention in the field of strategy may have moved on from environmental analysis, but we can thus see that in the

development of the field of strategy the environment has always been seen to have a role in influencing the success of a firm. The level at which the environment is thought to affect that success most, however, has changed over time from a very broad concept encompassing the common business environment through a more limited competitive environment focused on industry analysis to the much narrower business-level competitive environment.

9.3 The Implications of the Environment for Strategic Management

Whilst the central role that the environment has played in the development of the field of strategy should now be clear, the inclusion of the environment as a key element of strategic analysis raises a number of interesting questions about its role and the very nature of strategy itself. We thus need to consider the implications of the roles that the environment might play in strategy.

9.3.1 Change

Perhaps the key feature of the environment is that it is incessantly changing. One might say that there are no stable business environments, only differences in their rate of change. This raises the issue of strategic change and the ability of firms to adapt their strategy to suit changing circumstances. Change in the environment obviously challenges the flexibility of a firm and its ability to adapt its strategy in response to changes in the environment. One of the criticisms of earlier approaches to strategy was that they were static and following such criticism there has been

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more interest in the dynamic element of strategy quite apart from the work on strategic change referred to earlier. For example, along with comments on dynamic capabilities by Nelson (1991), Michael Porter (1991) has discussed the issue of dynamic strategies and Teece, Pisano, and Shuen (1997) have written about the dynamic capabilities of the firm. This issue is dealt with at more length in Chapters 13 and 27 where dynamic capabilities and turnarounds are discussed. The challenge that environmental change presents to a company is obviously an external one and that requires an awareness of external circumstances by those within the firm to prevent a firm from being disadvantaged by unexpected change.

9.3.2 Determinism and Strategic Choice

The fact that the environment is seen as a major factor in strategy formulation raises the question as to whether the vicissitudes of the external environment render futile all managers' attempts to make their firm successful. Earlier it was implied that in the SCP model, industry structure might not just lead to but determine firm conduct and thus performance. At a higher level the common strategic environment might also contribute towards some level of determinism in firm success. One can thus question whether the strategy that firms need to follow to achieve success is determined by and contingent on external circumstances or whether there is some strategic choice left to managers.

This debate can be seen as more than just a choice between a deterministic environment and free will and the environment can equally be seen as having an important role to play in strategic choice. Whittington (1988) distinguishes between 'action determinism' (where the choices of those making strategic decisions are determined internally) and 'environmental determinism' (where the choices of those making strategic decisions are determined by the external environment constraining choice) and emphasizes that to show strategic choice is possible, one must exclude both forms of determinism. How one does so depends according to Whittington on the importance attached to social structure in strategic choice. As Whittington says, 'Environmental structures, then, are not necessarily antagonistic to strategic choice; rather they both form its precondition and inform its content' (1988: 533)

Two theories which are closely related to this issue of the role of the environment in strategic choice are contingency theory and theories connected with organizational evolution.

9.3.2.1 Contingency Theory

Contingency theory is largely encountered in the context of organizational structure rather than industry structure or the question of what makes for a successful

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strategy. Lawrence and Lorsch (1967) and Woodward's (1965) work looked at the way in which successful organizational structures depended on the circumstances surrounding the firms concerned. This school of thought was countered by John Child's advocacy of the concept of strategic choice and a rejection of any deterministic notion of there being only one right organizational structure (Child 1972,

1997)

However, whilst contingency theory has its origins in the study of organizational structure, it raises similar questions regarding the relationship between a firm's performance and the surrounding environment of the firm. Does this surrounding environment determine what constitutes a successful strategy? On the other hand, is there some strategic choice left to managers such that a multitude of successful strategies can be selected from those which are possible in the face of a given set of environmental conditions? The research of McGahan and Porter and Rumelt (above) to some extent addresses this question in looking at the influence of the external or internal environment on business success; however, the focus here is as to whether the external circumstances surrounding a firm alone determine what constitutes successful strategy. The answer is almost certainly not. For example, research into how parent companies of different nationalities manage the acquisition of UK companies has shown that many different successful approaches to managing acquisitions exist (Child, Faulkner, and Pitkethly 2000).

The role of the environment in fixing limits to the strategic choice available to managers is another view of the role of the environment which is advocated by Mintzberg and Waters. In their view 'the environment can directly force the organization into a pattern in its stream of actions' whilst at the same time they concede that in reality 'environments seldom pre-empt all choice, just as they seldom offer unlimited choice' (Mintzberg and Waters 1985). Johnson and Scholes (1999) view the environment as sometimes imposing an enforced choice and sometimes acting as a constraint.

Contingency theory can be considered to have limitations in its application so far as determining successful strategies are concerned. However, insofar as the external environment places limitations on the strategic choices facing a firm, one might say that the success or failure of a strategy is in part contingent on the firm's environment, even if, as the debate between Rumelt and McGahan et al. has shown, the relative importance of the contingent variables is a matter of debate.

9.3.2.2 The Environment and Organizational Evolution

Another view tending towards a deterministic view of the influence of the environment on firm success is that put forward by those who explain economic and organizational change using models inspired by natural models of evolution. The two main proponents of this point of view are to be found in the sociological approach of Hannan and Freeman (1989) and the more economics-oriented work of Nelson and Winter (1982). In the extreme, such evolutionary views would render

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the whole concept of 'strategic choice' (such as that put forward by Child (1972)), and more particularly the choice of any competitive strategy for a firm, as a largely redundant concept (Aldrich 1979), since the environment acts to select successful companies in much the same way that natural selection is understood by many to be involved in the evolution of animal species. In practice, however, the essence of these two approaches still leaves some room for rational choice on the part of managers though successful adaptation is only seriously considered in Nelson and Winter's model which allows more room for organizational learning.

These two main approaches to an evolutionary view of organizations differ in a number of respects. Douma in a useful comparison (Douma and Schreuder 1998) points out that Hannan and Freeman adopt a sociological and more Darwinian approach which argues against radical change in organizations and strategies and for a degree of relative inertia. Chance variation in firm characteristics, natural selection by the firm's environment through competition or legitimation (social acceptability), and then retention of the characteristics of successful firms characterize such a model. Paradoxically, inertia is favoured in this model, in that those organizations which best fit with their environment survive best if they do not change. In contrast Nelson and Winter's model adopts a Lamarckian approach. In this approach firm characteristics are inherited by succeeding generations of firms and those characteristics can even develop within a given generation as a result of the firms' actions. In this view, firm routines are also stressed and these routines can in effect be selected by the environment. This process allows both deliberate and accidental changes in routines as well as selection by the environment. It thus allows more room for some strategic choice than the organizational ecology view of Hannan and Freeman does. Nelson and Winter's approach also puts a considerable emphasis on the role of routines as the means by which firm capabilities are passed on and in this respect their evolutionary theory of economic change is quite closely linked to ideas of core competences (Prahalad and Hamel 1990) and core capabilities. Since there is not only the idea of competence and capabilities built into that of routines but also that of a dynamic process, it is no surprise that Nelson has remarked on the importance of the concept of dynamic capabilities (Nelson 1991) as put forward by Teece, Pisano, and Shuen (1997) Nelson and Winter's approach therefore, despite relying on the external environment as a means of selection, is closely linked with ideas associated with the resource-based view of the firm and a concentration on the internal resources and capabilities of the firm, a link that Foss (1996) also comments on.

The common feature of both evolutionary approaches is that both involve the environment as the means by which successful firms are

selected from the unsuccessful. However in Nelson and Winter's model the environment selects individual routines whereas in Hannan and Freeman's model it is entire organizational forms that are selected. Lest we imagine that the environment creates rather than selects organizations and strategies in these views, it is worth pointing out that organizations

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and strategies are initially created by managers even if their subsequent survival depends on their ability to survive selection by the environment.

9.3.3 Environmental Learning

One thing that all companies should do is learn from their environment, something which forms part of the more general field of organizational learning (Argyris and Schon 1978). Doz and Hamel (1997), for example, refer to 'environment learning' in the context of technological alliances when both parties to an alliance can learn from the environment of the partnership. The idea of learning is to some extent built into Nelson and Winter's evolutionary theory which allows for intra-generational development of routines. However, more generally, and especially in technologically based fields, a global awareness of developments is essential to remaining competitive. A particularly good example of this is the use of electronic patent information databases and other electronic search methods to maintain an awareness of competitors' activities and relevant technological developments (Pitkethly 2001).

9.4 Analysis of the Common Strategic Environment

9.4.1 Identification of Relevant Factors

The analysis of the common strategic environment would seem to be essential to any attempt to describe the process of analysing the environment as a whole. However, strategy has been accused of being at worst a catalogue of lists (Kay 1993) lacking much in the way of a reliable basis for their use. In the field of environmental analysis this is particularly common, since it is easy to draw up extensive checklists and claim that almost any external factor common to all businesses constitutes a relevant factor for analysis.

Perhaps the external environment analysis list which is best known and at least has the value of brevity is that of Political, Economic, Social, and Technological (PEST) factors all of which might have a bearing on the strategy to be adopted by the firm. Naturally such factors might be extended almost endlessly but other factors that are frequently felt worthy of specific mention are legal factors (which might be included either within the definition of social factors) and factors linked to the natural environment.

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However good a firm's ability to organize the collection of information about its external strategic environment, there is always the possibility that the volume of information collected becomes impossible for the organization to process in such a way that it can be used effectively by those making the decisions. This problem is a form of bounded rationality and is described by Houlden (1980). The sheer scale and complexity of the information available nowadays means that models enabling managers to simplify their complex environment in order to reach rational conclusions about what to do are especially useful, even if in the simplification they lose some useful detail.

The first key in analysing a firm's common strategic environment therefore is to know what factors to include and what to ignore. Since the ultimate aim is to look at factors which will affect the firm's profitability which will be affected both by the firm's immediate business unit level competitive environment and at a higher level by the firm's industry environment, it presupposes that the key factors at the lower levels of environmental analysis are understood first. The relevant factors at the higher common strategic environment level can then be identified and irrelevant factors ignored.

9.4.2 Trends in the Common Strategic Environment

Following and predicting trends in the strategic environment involves some form of Forecasting. This can, for example, play a significant short-term role in demand forecasting and at one end of such attempts to forecast the environment we have the simple use of weather forecasts by companies such as ice-cream and drinks manufacturers, whilst at the other sophisticated statistically based forecasting techniques may be used by electricity suppliers to forecast demand. Longer term and more strategic trends, however, are just as critical to a firm's success as such immediate uses.

The range of factors and monitoring that a firm will invest in to keep itself aware of its environment will obviously vary from company to company and from industry to industry. However, common to all businesses is the need to not just analyse the present and past environment but also to look ahead to try to foresee how the strategic environment and the scope for gaining environmental advantage

from it will change. Thus, a key element in any environmental analysis is the dimension of time. This is primarily the field for forecasting methods such as scenario planning which will be dealt with later (Chapter 11) and other means of forecasting such as the Delphi technique (Linstone and Turoff 1975).

An increasing rate of change in the surrounding environment will favour those companies which are quickest to adapt to their changing surroundings rather than being left behind by them or by competitors with faster reactions. Understanding the rate of change in the environment is thus just as important as understanding

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what changes are occurring. Being too late or too early even with the correct changes can be just as disastrous as misjudging what they should be. Products introduced too early in a pre-paradigmatic phase of new product development can often suffer from such problems (Teece 1986). This puts a heavy emphasis on being aware of other developments in the field and on the difficult task of forecasting. Consequently, quite apart from scenario planning and other foresight methods, a critical skill is the ability to *recognize* patterns in the development of the strategic environment, and especially regarding those features of the environment just coming over the time horizon. It is just as important to have the ability to recognize the changes sooner than competitors and to then *respond* correctly to exploit that understanding (Mintzberg, Quinn, and Ghoshal 1995). This stresses the importance of the company's 'business radar' or means of gathering relevant and timely information but also the company's ability to process that information quickly and efficiently in order to include it in the strategic thinking of the company. Finally without the flexibility to respond appropriately to such input the mere analysis of the strategic environment will be rendered pointless.

9.4.3 The Global Environment

Finally, returning to the SWOT analysis view of strategy and the analysis of opportunities, *inter alia*, we might remember that Porter commented that the environment can also be seen as a source of advantage, saying 'Competitive advantage, then, may reside as much in the environment as in an individual firm' (Porter 1994). Competitive advantage is in fact meaningless as a concept unless it is used in the context of a given competitive environment. An advantage has to be gained over something other than the possessor of the advantage, in respect of some criteria relevant to a common objective and in relation to a given location and competitive environment. A salesperson whose mother tongue is English but who has an ability to speak Japanese can give a competitive edge to one UK manufacturer over another who only has an English-speaking representative and is also trying to export to Japan. But, if the export market is not Japan but China or if the competitor is not a UK company but a Japanese company already in Japan, a salesperson with English as their mother tongue may instead constitute a competitive disadvantage. Competitive advantage depends on context.

This is perhaps also clearly shown when the environment happens to be largely comprised of a national system as illustrated in Porter's (1990) analysis of national competitive advantage with its emphasis on firm strategy, structure, and rivalry, demand conditions, factor conditions, and related or supporting industries. As Rugman has pointed out, this may take the form of not a single but a combination of nations leading to a 'double diamond' of advantage (Rugman and Hodgetts 1995).

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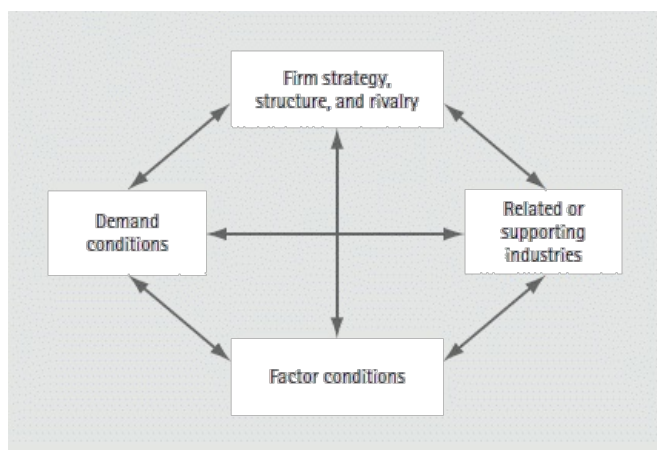


Fig. 9.5. Porter's national diamond

These factors are all important influences on competitive advantage but in addition to these geographic factors there may also be differences in the way companies from different cultures respond to their environment. Trompenaars (1993) in describing seven dimensions of national culture mentions differing attitudes towards the environment and whether the environment is viewed as something to be shaped or fitted in with as a key dimension in measuring management culture.

9.4.4 The Importance of Analysis of the Common Strategic Environment

If one views the historical development of strategy one sees that environmental analysis and the collection of information necessary for SWOT analyses and later on industry analysis were involved early on in the majority of corporate planning systems. This has meant that the data collection and analysis involved in such work might be seen as somehow outmoded and in large part an unnecessary diversion from concentrating on the more immediate factors relevant to a firm's strategy. It is true that over the past twenty years writing on strategy has tended to swing away from macro issues and even from industry analysis towards more micro issues and a focus on the individual firm. However, it is indisputable that an awareness of one's larger environment and an ability to interpret the information one receives about it correctly and in a timely fashion is essential to survival and to long-term success. This applies whether one is talking about the survival of an animal amongst its

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predators and prey, an army at war, or a firm competing with others in a complex and changing world. Given a choice, anyone will prefer seeing and understanding their environment to blind incomprehension.

9.5 Analysis of the Industry Environment

As outlined at the beginning of this chapter, the industry environment is a subset of the larger strategic environment. Consequently, many of the more general comments about the need to understand the broader common strategic environment apply to the competitive industry environment firms exist in.

In discussing the role of the environment in the development of strategy, we discussed the role of Porter in drawing attention to the imperfections in competition as a source of competitive advantage and as a source of industry attractiveness. Whilst there is more to analysing the strategic environment than just SWOT analysis for the common strategic environment and Porter's renowned 'five forces' framework to analyse the industry environment, there is little question that Porter's framework has been and remains one of the most influential and well-known schemes of strategic analysis. The importance of the environment to strategy and the fact that the five forces framework sets out to address that issue is perhaps emphasized by the fact that Porter begins the first chapter of his book *Competitive Strategy* (1980) by saying, 'The essence of formulating competitive strategy is relating a company to its environment.'

Understanding Porter's industry analysis in depth requires that one should read not only Porter's original work describing it (Porter 1980) and its origins (Porter 1981) but also others' criticisms of the model (e.g. Foss 1996). For the sake of completeness, though, the main features will be summarized here.

9.5.1 Porter's Industry Analysis

The first question to be asked in setting a firm's strategy according to Porter is where the firm should compete. In a sense it involves choosing where and with whom to compete and in what game playing according to which rules. The aim is for a firm to find a position where the structural features of the industry allow the firm to defend its position against competing forces and influence them in its favour.

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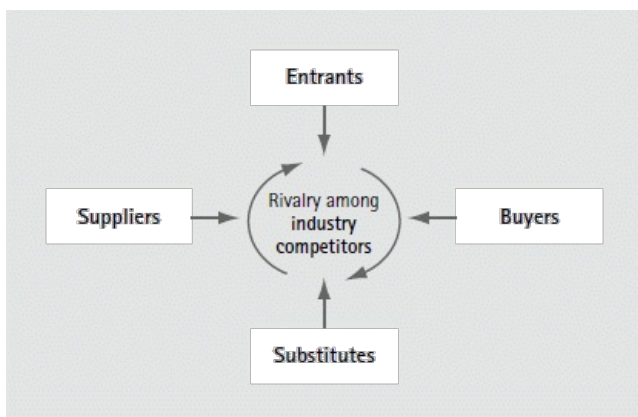


Fig. 9.6. The Porter five forces

Porter's industry analysis model has its origins in the field of Industrial Organization economics and flows in part from the implications of the Structure, Conduct, Performance model. This all puts a heavy emphasis on understanding the structure of an industry as a first step and Porter too views understanding whether a particular industry is an attractive one to compete in as a similarly essential first step. According to Porter, there are five key forces which determine industry attractiveness. In addition to competitive rivalry occurring within the industry, these forces divide into those which provide more competition: entrants and substitutes, and those which in essence portray the dynamics of the supply chain for the industry: suppliers and buyers.

9.5.1.1 Entrants

The work of Bain (1956) included work on entry barriers as a potential source of profits in an industry and found that higher entry barriers lead to higher profits. Entry barriers restrict the amount of competition in an industry by preventing easy entry and allow the maintenance of higher prices than would otherwise be the case. Entry barriers thus play a key role in the field of strategy and not just in industry attractiveness. Entry barriers have links with 'mobility barriers' (Porter 1980: ch. 8), which can be used to define strategic groups within an industry. We can also see how they may form as Rumelt (1984) puts it 'isolating mechanisms', which enable firms to protect some form of competitive advantage from others. In practice barriers to entry may take the form of direct legal barriers such as patent protection or a state monopoly or state protected industry, or indirect barriers such as deliberate provision of overcapacity or other threats of retaliation such as price

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drops. Other sources of entry barrier include switching costs, access to critical assets such as distribution channels, intellectual property rights in general, complementary assets (Teece 1986), and experience-based savings which new entrants cannot hope to catch up with easily.

9.5.1.2 Substitutes

Obviously, if there is an alternative product or service in competition with an existing industry, it is going to adversely affect the industry's attractiveness, especially if the alternative has obvious advantages. If the advantages of the new substitute are overwhelming, it may well spell the end of the older industry. Competing technologies provide the most common example of substitutes which might adversely affect the profitability of an established business. However, in many industries more conventional products can act as substitutes. In the cola soft drinks business, for example, a potential substitute product would be coffee and even if a firm's market share of cola soft drinks were high, the overall market size might be reduced by competition from coffee and other substitute beverages. In high technology fields the threat from substitutes, especially those based on new technology, is a continuously developing threat which will vary depending on the relative price/performance of the substitutes relative to existing products. One issue that the question of substitutes raises is the definition of the industry. At what point does a competing product become a substitute product or vice versa? Porter identifies members of the same industry as being the group of firms producing products or services which are 'close substitutes' for each other. This merely emphasizes that the distinction between industry competitors and substitutes can be imprecise and often subjective.

9.5.1.3 Buyers

Buyers will compete with an industry by trying to drive down the prices obtained by the industry and in effect competing with the industry

for the added value in the value chain. Buyers' power vis-a-vis the industry is strengthened when they buy in larger volumes or buy a significant proportion of the sellers' output, when the purchase represents a significant proportion of the buyer's costs, when the products or services are standard ones, when there are few switching costs or when profits are low and there is not much in the way of added value in the value chain to fight over, thus intensifying competition for it. Buyers may also pose a threat to an industry if they are in a position to backwards integrate and can threaten to acquire the seller. It is usually in a buyer's favour to own at least some part of the industry supplying them, in order to improve its knowledge of the industry cost structure and thus improve its bargaining position. Buyers can conversely be less of a threat when there is a threat of forward integration from the industry and less powerful when the product or service in question is critical to the quality and success of the buyers'

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business. Since some buyers may be less powerful than others, buyer selection can also play an important role in a firm's strategy.

9.5.1.4 Suppliers

The power of sellers to an industry to a large extent mirrors the relationship of buyers from the industry and all the above factors relating to buyers can equally be considered in relation to suppliers, though of course in reverse. Concentration of suppliers and a threat of forward integration from suppliers are two examples. Additional issues can be a reduction in seller power if they are competing with other substitutes or increased seller power if the seller builds up the switching costs faced by the industry. Firms can of course reduce supplier power by diversifying their range of suppliers, standardizing products, and supplying some needs in-house.

9.5.1.5 Industry Rivalry

Competitive rivalry within an industry can be affected by a number of factors including the concentration of the industry, with greater concentration usually signalling lower profits. Capacity increases if obtainable only in large increments can be highly destabilizing for an industry and lead to a feast and famine cycle where overcapacity and shortages keep following each other. If there is little to differentiate commodity products of the rival companies, competition can be volatile and lead to high marketing expenditures. High storage costs can lead to pressure to reduce prices to keep sales moving and high fixed costs can lead to pressure to keep producing to break even which may then lead to price reductions due to overproduction. Slow growth in an industry may also intensify competition for market share. If the industry is in decline the competition for market share can become complex with competition, on the one hand, to exit the industry profitably and, on the other, to mop up residual profits in the industry. High exit barriers will in any event lead to lower profitability as firms are kept in business despite low returns when the costs of exiting altogether are even greater.

According to Porter, by analysing the five forces confronting an industry, a firm should be able to *position* itself so as to defend itself against them, *influence* them so as to improve its position, and *anticipate change* in them so as to obtain a better position before rivals do.

9.5.2 Criticisms of Porter's Industry Analysis

Whilst Porter's five-forces-based industry analysis framework has been justifiably popular as a means to analyse industries, it is not without its critics. The majority of the criticisms that are made of the framework are related to the industrial organization economics background that it is derived from.

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The first aspect of it is that it concentrates almost exclusively on the external environment surrounding the firm and not on the firm and the firm's internal resources. The summary of the LCAG model which Porter outlines in the introduction to his book *Competitive Strategy* has both internal and external aspects which are held in balance, the strengths and weaknesses of the firm being matched against the opportunities and threats presented by the firm's surroundings. In the industry analysis model however the emphasis shifts almost entirely onto the external environment as the source of the firm's success (Foss 1996). In the light of later developments in the field of strategy and in particular the resource-based view of the firm (Wernerfelt 1984), downplaying the role of the firm and its resources can be seen as a significant omission which is only partly redressed in Porter's later writing (Porter 1990).

Secondly, Porter's view of the pressures on an industry not only looks outwards at the firm's environment rather than inward at the firm's resources, it also, in his earlier book *Competitive Strategy* (1980), downplays the role of competition within the industry relative to the other forces. Competitive rivalry within the industry is only addressed more fully in his later book *Competitive Advantage* (1985). Though 'coalitions' are discussed, where competition and rivalry are considered, it is seen as being primarily competition between individual firms within the industry rather than possibly involving interaction between alliances, joint ventures, or other groupings as well.

Thirdly, and perhaps most importantly, is the criticism that Porter's view of industry structure is primarily static as opposed to dynamic, a view outlined by Grant (1998) amongst others. In the SCP model on which Porter's model is based, industry structure determines industry profitability but it does this through the strategies adopted by the firms in the industry. In effect it does this through the competition within the industry. However, competition is likely in turn to affect industry structure thus rendering the relationship a dynamic, not static one in which industry structure is perpetually changing. In his article on the contributions of 10 economics to strategy, Porter (1981) does point out that feedback effects may lead to performance influencing both conduct and industry structure in some circumstances. However, this does not translate into a full inclusion of the dynamic element of strategy and this is perhaps shown by the fact that Porter felt it necessary to add his much later article on dynamic strategy (Porter 1991) with its reservations, for example, about the resource-based view and its developments including the 'most troubling' nature (according to Porter) of Prahalad and Hamel's core competence article (Prahalad and Hamel 1990).

A potential fourth criticism raised by Mintzberg, Ahlstrand, and Lampel (1998) in discussing the 'positioning school', which Porter's industry analysis view of strategy exemplifies, is that an approach to strategy based solely on analysis cannot be creative. The 'analysis paralysis' which besets some organizations might illustrate this. Other criticisms exist, for example that the application of industry structure

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analysis to individual firms rather than industries as outlined in *Competitive Advantage* (Porter 1985) is not as successful as it might be. However many criticisms are raised though, even the fiercest critic would be forced to admit that even twenty years after its introduction Porter's five forces industry analysis model remains perhaps the single most influential model in the field of strategic management.

9.6 Analysis of the Business Unit Environment

As mentioned above, whilst Porter's five forces analysis of industry attractiveness has at its centre the intra-industry competitive rivalry, the application of the five forces framework to the analysis of the intra-industry level or business unit level competitive environment is not without problems. Some aspects do translate from the industry-level analysis to the business unit level reasonably well, in particular relationships between a firm and its buyers and suppliers. There may well be competition from new entrants and substitute products that affect individual members of the industry and one can, as Porter does in his later book, substitute intra-industry mobility barriers between strategic groups for industry entry barriers (Porter 1985). However, the obvious problem with applying an industry-level frame-work to analysing business unit competition is that at the centre lies not an industry but a firm. 'Internal rivalry' and new entrants' can only apply to an industry and not so clearly to an individual firm. The internal characteristics of the firm that give it competitive advantage are not addressed by a framework which just looks at external forces acting on the industry. External forces at a business unit level remain important but the resource-based view of the firm (Wernerfelt 1984) reminds us that we cannot afford to ignore internal factors any more than external factors.

The essence of analysing the industry-level environment is to examine those features which influence profit levels within the industry as a whole. In contrast the aim of analysing the immediate competitive environment surrounding a firm is to analyse how the performance of the individual firm is affected. Leaving aside internal factors, the external environmental factors of particular interest comprise the interactions with the firm's immediate buyers, suppliers, competitors (including substitutes or new entrants to the industry) and what might be termed collaborators (who may be licensees, licensors, providers of complementary assets (Teece 1986), joint venture or strategic alliance partners, or complementers (Nalebuff and Brandenburger 1996) cooperating directly or indirectly with the firm and helping it exploit a market better than it would be able to alone.

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One further feature of Porter's work which is relevant here is the value chain or chains that the firm forms part of. John Kay (1993) explains how business success in the form of competitive advantage can be measured in terms of added value which, according to Kay, underpins all corporate performance measures. If we combine this with Porter's (1985) work on the value chain, the aim of the firm is to try to maximize the added value that it can appropriate by providing benefits at each stage of the value chain that the customer is prepared to pay more for than they cost the firm to provide.

However, this view, whilst establishing an objective for the firm, tends to play down the role of competition to capture added value from customers and other members of the value chain as well as from more conventional competitors and even allies of the firm who all make up the firm's business unit level competitive environment.

One might therefore better view an industry as composed of a chain of competing, possibly even intertwined, value chains with the firm in question forming one element of at least one value chain. Customers at the end of the value chain will be prepared to pay a sufficient

amount to support a certain level of added value distributed over the entire value chain and thus amongst the firm and other members of the chain. Porter's and Kay's analysis plays down this competitive if not the comparative element in value chain analysis even if the opposing forces of buyers and suppliers in Porter's model might be said to be in competition. In practice the business unit level competitive environment surrounding a firm comprises a game whose objective is not only to maximize the value added by the firm relative to other competitors and substitutes but at the same time to maximize the appropriation of value from the overall value chain the firm is involved in. As Grant (1998) puts it, profits earned by firms are determined by:



Fig. 9.7. Value chain

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- (1) the value of the product or service to customers;
- (2) the intensity of competition; and
- (3) the relative bargaining power at different levels in the production chain.

Nalebuff and Brandenburger (1996) take a game theoretical approach to this idea of competition being a matter of capturing value. This is explained in simple terms through the use of their 'Value net', where the competition to capture value is seen as a game between the firm and its suppliers, buyers, competitors, and complementors.

This is extremely helpful, but it is easy to see parallels with Porter's five forces analysis. The dimension of the firm's suppliers, the firm itself, and the firm's buyers is retained whilst the other dimension is only altered to replace barriers to entry with complementors—defined as those whose products enhance the value of your products to customers who possess both products. Whilst these similarities exist it must be remembered that Porter's framework is one of forces acting on an industry whilst the value net is more of a scheme showing where there is competition for the added value in the industry as a whole, and how it might be distributed as a result of such forces at business unit rather than industry level. However, in concentrating on that distribution, it is easy to lose sight of the value chain that the firm forms part of and the need to emphasize that, at business unit level, there is both competition to capture value from other members of the value chain including the final customer as well as competition with other competitors' value chains and also competition with collaborators to appropriate added value.

Finally there is another aspect not dealt with by either Porter's value chain or industry-level forces concepts, namely that the objective of a firm is not just to compete with other firms but to try to expand the value capture model that the firm

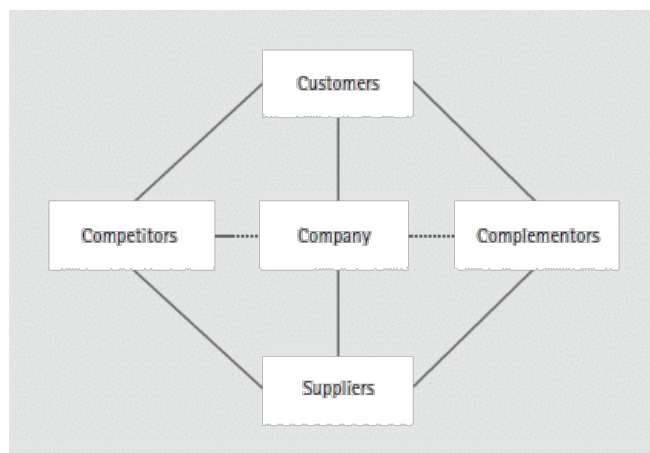


Fig. 9.8. The value net

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represents into new markets in order to exploit fully what might be called the *strategic appropriability* of the business concept.

At the simplest level, one might liken this to trying to ensure that the firm competes successfully for its slice of the added value cake whilst at the same time trying to ensure that the cake grows larger. A concern for the radius (R) and not just the radii (r) of the cake that can be appropriated. Combining this idea with the competition for added value with substitutes and competitors, buyers, suppliers, and collaborators, we thus arrive at the form of competitive value map needed to guide firms thinking about their immediate competitive environment, even if one has to remember that this deals with competition for added value with other players in relative rather than absolute terms.

In this view of the business unit level competitive environment, the company's aim is to increase the company added value (a) it can appropriate by reducing its own costs (b) as well as those of suppliers (d), buyers and collaborators involved in the value chain and capturing added value (c) from them. At the same time the company and members of its value chain need first to compete with competitors and substitutes and secondly to try to enlarge the market for the goods or services concerned in order to increase (e) the value that the firm can capture.

In the business unit level environment the firm thus competes for added value with not only competitors and substitutes but also conventional buyers, suppliers, and customers in the value chain as well as the firm's collaborators. These collaborators comprise firms who may be complementors in the sense described by Brandenburg and Nalebuff but may also be licensees, licensors, providers of complementary assets (Teece 1986), joint venture or strategic alliance partners,

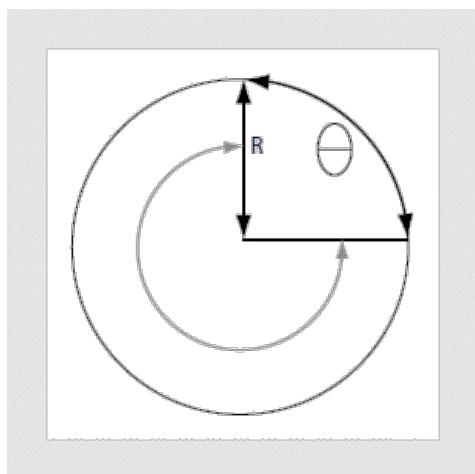


Fig. 9.9. Strategic appropriability

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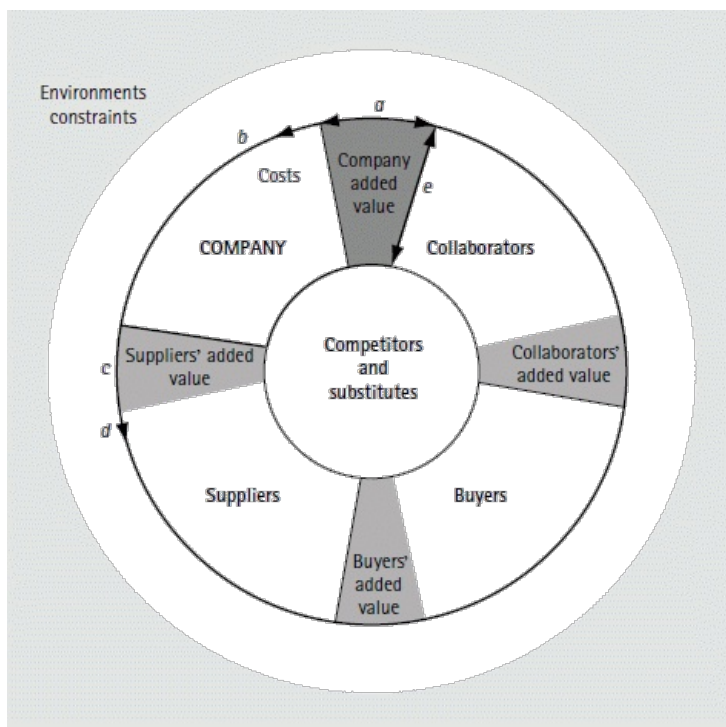


Fig. 9.10. Competitive value map

cooperating directly or indirectly with the firm and helping it exploit a market better than it would be able to alone. Such collaborators will all be competing for the added value in the value chain even if they are not all competing with the firm for customers.

Earlier the possibility was raised that 'environmental analysis' could lead to 'analysis paralysis' with firms being so overloaded with information about their environment that they were unable to process the information and distinguish that which was relevant. In scenario planning it is essential to try to concentrate on those elements which are likely to have a high impact on the firm's business whilst still being subject to high uncertainty. Similar considerations apply in terms of analysing the competitive environment and one is concerned to isolate those features of the environment which have a high impact on the firm's profitability but which are also features over which the firm has some strategic control or influence. The role of buyers, suppliers, competitors, and collaborators remains paramount but in aiming to increase strategic appropriability a far wider range of features of the competitive environment become relevant including the management of resources and

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especially complementary assets, the use of strategies involving de facto and de jure standards and the use of alliances of one form or another in order to exploit competitive advantages the firm might have. The aim is not just to capture more added value from the rest of the value chain and competitors but also from as yet untapped markets.

Viewing the business unit level competitive environment as a whole, the basic elements remain those very simple ones of competing for market share and market growth, and trying to maximize the appropriation of added value by competing with suppliers, buyers, and others within the firm's value chain whilst at the same time competing with other firms and other products to provide greater value at competitive prices.

9.7 The Future of Environmental Analysis

Analysing the environment in the context of strategy can be taken at a simplistic level to be just a matter of paying attention to lists of common external factors exemplified by SWOT analyses, using Porter's five forces in order to analyse industry attractiveness and considering the way in which firms within an industry compete with each other. At worst it might be played down or given insufficient consideration due to being seen as a key element in outmoded forms of strategic planning exercises of the 1960s and 1970s.

It is certainly true that the strategy literature has in the past twenty years tended to move away from overall macro and external issues

and towards discussion of the role of the individual firm and its resources. However, there is one other current which has a bearing on discussion of the environment. That is the trend towards postmodernist views of strategy and towards views of the surrounding business environment as more relative, context-dependent, and subjective and less objective, realistic, and concrete. Whilst in its more extreme forms this is not wholly beneficial, there is considerable benefit in being aware of differing interpretations of environmental data. Irrespective of how one views such postmodernist influences though, this latter trend has tended to keep the issue of the environment and its role in strategy under active discussion.

Whether writers on strategy discuss the environment or not though, the environment in all the senses discussed here is still present, whether in the objective reality out there that some perceive or in the collection of constructs that others see it comprising. It is therefore inevitable that environmental analysis, whatever one

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takes the term to mean, is going to remain an essential element in any fixture discussion of strategic management.

In discussing the development of strategic management, it is often useful to look to the common strategic environment as an explanatory factor in the development of the field. In the middle to late 1970s some of the key events of the decade from a business perspective related to oil price rises and concerns about energy. This coincided with the popularity of methods such as scenario planning and environmental scanning techniques. The 1980s saw the hard-won ascendancy of Japanese manufacturing techniques and at the same time the latter part of the 1980s saw strategic management concerns turn inwards and away from environmental concerns towards resources such as manufacturing skills.

In the twenty-first century the one thing we can be certain of is that the business environment will continue to change whatever the level at which that change occurs. In the last few years of the last millennium the rapid expansion in electronic means of communication have brought about a revolution in the ways in which companies can compete. At the same time there is already some scepticism being aired as to how revolutionary the effect of such changes will be. If one believed even fairly sober forecasts in the mid-1970s, there would be no oil reserves left in the world by now. In much the same way it is unlikely that electronic commerce will completely destroy the existing competitive environment.

Changes, however, will occur and even if they are small the interest in them is likely to put a new emphasis on the competitive environment that firm strategies are formulated in. This is likely to take many forms but one example might be a concern with legal issues which set the rules of the game in e-commerce. More generally this can be interpreted as a concern with the rules governing the competitive environment whether at macro, industry level, or business unit level. The regulatory environment governing antitrust law, the laws relating to protection of intellectual property, the economics of the electronic and legal environment or rule books and playing fields that companies, industries, and countries operate within are just some of the areas of environmental analysis that can be expected to receive greater attention.

Whatever slant interest in these areas takes, analysing the firm's environment will remain a critical step in formulating a successful strategy. No firm which hopes to be successful can afford to ignore the environment in which it operates, and equally no firm can afford to merely acquire knowledge about its environment without at the same time acquiring wisdom and understanding about the implications that the environment has for the firm, whether at the business unit level, at the industry level focused on industry structure and attractiveness or at the higher level of the common strategic environment.

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9.8 Conclusions

This chapter has introduced the concept of environmental analysis in the context of strategic management. It has examined the changing role that the environment has played in the development of thinking about strategic management and examined some of the implications that the environment can have for strategic management. A number of dilemmas and debates involving the environment have been examined. These include the value of cognitive views of the environment and whether the environment should be thought of more as a subjective construct than an objective reality. Whether the environment plays a key role in determining firm strategy or whether it merely provides a backdrop for strategic choice on the part of managers has also been examined. Allied with this question are the areas of contingency theory and theories of organizational evolution both of which have been outlined along with the importance of environmental learning by firms. The central issues in environmental analysis which concern a firm in practice have also been outlined. These comprise the three progressively narrower fields of: analysis of the common strategic environment, analysis of the industry environment, and analysis of the business unit environment. Well-known techniques such as PEST analysis looking at political, economic, social, and technological factors and Porter's five forces industry analysis involving study of entrants and substitutes as well as buyers, suppliers, and internal competition were reviewed. Finally, analysis of the business unit environment was studied including the importance of

competition for added value shown in Porter's value chain and Brandenburger and Nalebuff's value net. The importance of considering the strategic appropriability of added value and the competitive value map which summarizes the business unit environment was also described.

References

Adamson, I., and Kennedy, R. (1986). *Sinclair and the Sunrise Technology*. Harmondsworth: Penguin.

Aldrich, H. E. (1979). *Organizations and Environments*. Englewood Cliffs, NJ: Prentice-Hall.

Ansoff, H. I. (1988). *Corporate Strategy*. London: Penguin.

Aquilar, F. (1967). *Scanning the Business Environment*. New York: Macmillan Company.

Argyris, C., and Schon, D. A. (1978). *Organizational Learning*. Reading, Mass.: Addison-Wesley.

end p.263

Bain, J. S. (1956). *Barriers to New Competition*. Cambridge, Mass.: Harvard University Press.

— (1959). *Industrial Organisation*. New York: Wiley.

Boswell, J. (1970). *Life of Johnson*. Oxford: Oxford University Press.

Burns, R. (1969). *Poems and Songs*. Oxford: Oxford University Press.

Carroll, L. (1960). *Through the Looking Glass: The Annotated Alice*, ed. M. Gardner. London: Penguin.

Chaffee, E. E. (1985). 'Three Models of Strategy'. *Academy of Management Review*, 10/1: 89–98. [Link](#)

Chamberlin, E. H. (1933). *The Theory of Monopolistic Competition*. Cambridge, Mass.: Harvard University Press.

Child, J. (1972). 'Organizational Structure, Environment and Performance: The Role of Strategic Choice'. *Sociology*, 6: 1–22. [Link](#)

— (1997). 'Strategic Choice in the Analysis of Action, Structure, Organisations and Environment: Retrospect and Prospect'. *Organisation Studies*, 18/1: 43–76. [Link](#)

— Faulkner, D., and Pitkethly, R. (2001). *The Management of International Acquisitions*. Oxford: Oxford University Press.

Coase, R. H. (1937). 'The Nature of the Firm'. *Economica*, NS 4: 386–405. [Link](#)

Comanor, W. S., and Wilson, T. A. (1974). *Advertising and Market Power*. Cambridge, Mass.: Harvard University Press.

Dixon, B. (1994). *On the Psychology of Military Incompetence*. London: Pimlico.

Donne, J. (1634). Meditation XVII. *Devotions Upon Emergent Occasions*.

Douma, S., and Schreuder, H. (1998). *Economic Approaches to Organisations*. Hemel Hempstead: Prentice-Hall Europe.

Doz, Y., and Hamel, G. (1997). 'The Use of Alliances in Implementing Technology Strategies', in M. L. Tushman and P. Anderson (eds.), *Managing Strategic Innovation and Change*. Oxford: Oxford University Press, 556–80.

Engledow, J., and Lenz, R. T. (1985). 'Whatever Happened to Environmental Analysis?' *Long Range Planning*, 19/2:101–9.

Foss, N. J. (1996). 'Research in Strategy, Economics and Michael Porter'. *Journal of Management Studies*, Jan.: 1–24

Grant, R. M. (1998). *Contemporary Strategic Analysis: Concepts, Techniques, Applications*. Oxford: Blackwell.

Hannan, M. T., and Freeman, J. H. (1989). *Organizational Ecology*. Cambridge, Mass.: Harvard University Press.

Hay, D. A., and Morris, D. J. (1991). *Industrial Economics and Organization*. Oxford: Oxford University Press.

Hines, R. (1988). 'Financial Accounting: In Communicating Reality We Construct Reality'. *Accounting, Organizations and Society*, 13/3: 251–61. [Link](#)

Holmstrom, B., and Roberts, J. (1998). 'The Boundaries of the Firm Revisited'. *Journal of Economic Perspectives*, 12/4 (Fall): 73–94

Houlden, B. T. (1980). 'Data and Effective Corporate Planning'. *Long Range Planning*, 13: 106–11. [Link](#)

Johnson, G., and Scholes, K. (1999). *Exploring Corporate Strategy* (5th edn). London: Prentice-Hall.

Kay, J. (1993). *Foundations of Corporate Success*. Oxford: Oxford University Press.

end p.264

Lawrence, P. R., and Lorsch, J. W. (1967). *Organisation and Environment*. Boston: Division of Research, Graduate School of Business Administration, Harvard University.

Learned, E. P., Christensen, C. R., Andrews, K. R., and Guth, W. D. (1969). *Business Policy*. Homewood, Ill.: Irwin.

Linstone, H., and Turoff, M. (eds.) (1975). *The Delphi Method: Techniques and Applications*. London: Addison-Wesley Publishing Company.

McGahan, A. M., and Porter, M. E. (1997). 'How Much Does Industry Matter, Really?' *Strategic Management Journal*, 18/Summer Special Issue: 15–30.

March, J. G., and Simon, H. A. (1958). *Organizations*. New York: Wiley.

Marshall, A. (1890). *Principles of Economics*. London.

— (1919). *Industry and Trade*. London.

Mason, E. S. (1957). *Economic Concentration and the Monopoly Problem*. Cambridge, Mass.: Harvard University Press.

Mintzberg, H., and Waters, J. A. (1985). 'Of Strategies, Deliberate and Emergent' *Strategic Management Journal*, 6/3 257–72. [Link](#)

— Ahlstrand, B., and Lampel, J. (1998). *Strategy Safari*. Hemel Hempstead: Prentice-Hall Europe.

— Quinn, J. B., and Ghoshal, S. (1995). *The Strategy Process* (Revised European edn). Hemel Hempstead: Prentice-Hall Europe.

Nakane, C. (1970). *Japanese Society*. Berkeley: University of California Press.

Nalebuff, B. J., and Brandenburger, A. M. (1996). *Co-opetition*. London: Harper Collins.

Nelson, R. R. (1991). 'Why Do Firms Differ and How Does It Matter?' *Strategic Management Journal*, 12: 61–74. [Link](#)

—, and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press.

Pitkethly, R. (2001). 'Intellectual Property Strategy in Japanese and UK Companies: Patent Licensing Decisions and Learning Opportunities'. *Research Policy*, 30/3: 425–42. [Link](#)

Pocock, T. (1988). *Horatio Nelson*. London: Cassell.

Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.

— (1981). 'The Contributions of Industrial Organization to Strategic Management'. *Academy of Management Review*, 6/4: 609–20. [Link](#)

— (1985). *Competitive Advantage*. New York: Free Press.

— (1990). *The Competitive Advantage of Nations*. New York: Free Press.

— (1991). 'Towards a Dynamic Theory of Strategy'. *Strategic Management Journal*, 12/Winter: 95–117. [Link](#)

— (1994). 'Toward a Dynamic Theory of Strategy', in R. P. Rumelt, D. E. Schendel, and D. J. Teece (eds.), *Fundamental Issues in Strategy*. Cambridge, Mass.: Harvard University Press, 423–61.

Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May-June: 79–91.

Rajagopalan, N., and Spreitzer, G. M. (1996). 'Toward a Theory of Strategic Change: A Multi-lens Perspective and Integrative Framework'.

Academy of Management Review , 22/1: 48–79. [Link](#)

Rugman, A. M., and Hodgetts, R. M. (1995). *International Business: A Strategic Management Approach*. London: McGraw-Hill.

end p.265

9 Analysing the Environment

Rumelt, R. P. (1984). 'Towards a Strategic Theory of the Firm', in R. Lamb (ed.), *Competitive Strategic Management*. Englewood Cliffs, NJ: Prentice-Hall, 556–70.

— (1991). 'How Much Does Industry Matter?' *Strategic Management Journal* , 12:167–85. [Link](#)

Scherer, F. M., and Ross, D. R. (1990). *Industrial Market Structure and Economic Performance*. Boston: Houghton Mifflin.

Schmalensee, R. (1985). 'Do Markets Differ Much?' *American Economic Review* , 75/3: 341–51.

Schwenk, C. R. (1988). 'The Cognitive Perspective in Strategic Decision Making'. *Journal of Management Studies* , 25: 41–56. [Link](#)

Segev, E. (1979). 'Analysis of the Business Environment'. *Management Review* , 63: 58–61.

Simon, H. (1976). *Administrative Behaviour* (3rd edn). New York: Free Press.

Smircich, L., and Stubbart, C. (1985). 'Strategic Management in an Enacted World'. *Academy of Management Review* , 10/4: 724–36. [Link](#)

Stewart, T. R. (1997). 'Forecast Value: Descriptive Decision Studies', in R. W. Katz and A. H. Murphy (eds.), *Economic Value of Weather and Climate Forecasts*. Cambridge: Cambridge University Press.

Teece, D. J. (1986). 'Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy'. *Research Policy* , 15/6: 285–305. [Link](#)

— Pisano, G., and Shuen, A. (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal* , 18/7: 509–33. [Link](#)

Thomas, P. (1980). 'Environmental Scanning—The State of the Art'. *Long Range Planning* , 13/Feb.: 20–5. [Link](#)

Trompenaars, F. (1993). *Riding the Waves of Culture: Understanding Cultural Diversity in Business*. London: The Economist Books.

Tversky, A., and Kahneman, D. (1974). 'Judgement under Uncertainty: Heuristics and Biases'. *Science* , 185:1124–31. [Link](#)

Von Neumann, J., and Morgenstern, O. (1944) *The Theory of Games and Economic Behaviour*. Princeton: Princeton University Press.

Weick, K. E. (1990). 'Cartographic Myths in Organisations', in S. A. Huff (ed.), *Mapping Strategic Thought*. New York: Wiley.

— (1995). *Sensemaking in Organisations*. Thousand Oaks, Calif: Sage Publications.

Wernerfelt, B. (1984). 'A Resource-Based View of the Firm'. *Strategic Management Journal* , 5/2:171–80.

Whittington, R. (1988). 'Environmental Structure and Theories of Strategic Choice'. *Journal of Management Studies* , 25/6: 521–36. [Link](#)

— (1993). *What is Strategy—and Does It Matter?* London: Routledge.

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.

— (1985). *The Economic Institutions of Capitalism*. New York: Free Press.

Woodward, J. (1965). *Industrial Organisation: Theory and Practice*. London: Oxford University Press.

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10 Strategic Groups: Theory and Practice

John McGee

THE concept of *strategic groups* and the initial theorizing about strategic groups originated in the early 1970s at Harvard, where a number of researchers (Hunt, Newman, and Porter), guided by Caves and Spence, were engaged in doctoral research studying the existence of structural (strategic) asymmetries within industries, their implication for market equilibrium, and modelling the competitive behaviour of firms on the basis of these asymmetries.

This research, carried out within the Industrial Organization tradition, resulted in the creation of a theory of strategic groups. Since the early 1970s, its influence has been widespread within Industrial Organization and within Strategic Management. The most important articles of the early research on strategic groups are Caves and Porter (1977) and Porter (1979). Although the former is the better known, the two articles complement each other. Caves and Porter (1977) address issues concerning the existence of strategic groups, but the main focus is on an 'operational array of

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actions and outcomes', while Porter (1979) attempts to propose a theory of the determinants of companies' profits.

Research carried out in the last twenty years on strategic groups either tries to confirm through empirical studies some of the hypotheses developed by the authors or to further develop issues presented in these two seminal papers. This chapter sets out to assess the progress made in research into strategic groups, to identify the linkages to other aspects of strategic management, and to suggest implications for the conduct and practice of strategic management. The first section introduces the basic theoretical framework, the second sets out the implications for theory and practice, the third part outlines some of the interesting empirical studies, the fourth section extends the concept to include a role for management cognition ('mental maps'), and the final section discusses some parallels and connections with the population ecology of organizations.

10.1 Industrial Organizations and the Theory of Strategic Groups

10.1.1 Industrial Organization and the Structure, Conduct, Performance Paradigm¹

¹ For a more extensive and detailed summary, see Curto (1998).

Within Industrial Organization, researchers study industries at the macro level in order to assess the impact of the characteristics of an industry on consumer welfare using concepts of allocative efficiency and technical progressiveness as performance criteria. Research has particularly focused on the structure of oligopolistic industries. The Structure, Conduct, Performance (SCP) paradigm has been for a long time the main theoretical framework within which industrial organization research is depicted. The SCP paradigm originates in the research conducted by Mason (1939) and Bain (1956, 1968) in order to explain why price does not equal average cost in the long run and hence why industries have different averages of profitability. According to the authors, the reasons have to be seen in the existence of *barriers to entry*. The existence of barriers to entry means that a potential entrant faces additional costs with respect to the incumbent firm when entering a market. The existence and height of barriers to entry and the scale of plants are the primary determinants of the market structure, and the industry structure is the *only* element determining the performance of firms. The possibilities of new firms entering the

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market and the existence of barriers to entry determine the price in the market. As the incumbent firms may be interested in deterring and limiting competition, the price will be fixed at a level typically lower than the profit-maximizing prices. This therefore reduces the incentive of new firms to enter given that potential entrants will enter the market only if they expect to earn extra profits.

A number of assumptions characterize the SCP paradigm:

1. Technology is given and is characterized by economies of scale.
2. Plants differ in their scale and each firm only possesses one plant.
3. Price is set by firms with large plants and it is unique in the market.
4. There are no differences between firms within the same market except for the scale of operations.
5. There is no uncertainty in the market: potential entrants and incumbent firms know the demand and the cost curves.
6. All the actors have the same set of information (i.e. there is no asymmetry of information).
7. Actors' rationality is not bounded.
8. There is not opportunism in the market.

9. There is no form of asset specificity.
10. All firms operating within the industry are in direct competition among themselves.

In this industrial organization view of the world, key decisions are determined by the characteristics of the market structure and firm differences are unimportant. Firms take 'economic' decisions relatively to price, advertising, capacity, and quality (i.e. 'conduct' in the SCP paradigm). Discretionary behaviour by managers and entrepreneurs is not acknowledged.

The SCP paradigm has attracted much research attention and various developments of the paradigm have been proposed. A famous modification recognizes a feedback effect from a firm's own performance on its conduct and from the conduct of firms on the industry structure (Scherer 1980). However, industry (market) structure still remains the critical factor in explaining firm behaviour even though the past conduct of firms constitutes the essence of the feedback loop. Thus, industrial organization remains a theory of 'Structural determinism' and the academic arguments for strategic discretion at the level of the firm have come from management academics and from the strategic management field in particular.

10.1.2 The Theory of Strategic Groups and Mobility Barriers

The research conducted by Hunt, Newman, and Porter in the early 1970s introduced an important innovation in the SCP paradigm. They argued that firms within the same industry are likely to differ on traits other than size. Research (Hunt 1972;

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Newman 1973; Porter 1973; Hatten 1974) initially focused on proving the existence of differences in firms' structural characteristics and the existence of stable group structures in an industry. In 1977 Caves and Porter published an article in which the implications of the existence of stable group structures on firms' strategic behaviour and on an industry's structure were examined:

Common observation suggests that the firms in an industry often differ from one another in their degree of vertical integration or diversification, the extent to which they advertise and 'brand' their product, whether or not they use 'captive distribution' channels, whether they are full-line or narrow-line sellers, whether they operate in the national market or only regionally, whether they are multinational in operation, etc. An industry thus may consist of groups of firms, each group composed of firms that are quite similar to one another along some structural dimensions. (Caves and Porter 1977: 251)

This approach was consistent with the approach taken by Caves and Porter and others in the Harvard economics tradition to apply the SCP paradigm to the analysis of firm behaviour. It was captured in the now famous Porter books on industry analysis, *Competitive Strategy* (1980), and *Competitive Advantage* (1985). This thinking denied the structural determinism of traditional industrial organization and placed strategic discretion at the heart of resource allocation thinking. It effectively gave the emerging field of strategic management an economic rationale. Strategic discretion by firms denies the assumptions listed above and in particular asserts that firms could have structural differences that were the result of strategic decisions (captured by Porter as competitive strategy) and therefore that barriers to entry could be endogenously determined as a result of these decisions. In other words, firm performance need not be structurally determined by industry structure alone and that there could be substantial and sustained differences between firms. In this view, the firm matters and discretionary behaviour by managers and entrepreneurs *is* acknowledged. Porter's introduction of industry analysis to the lexicon of strategic management provided the framework within which the variety of firm structures and positions could be analysed. His concept of generic strategies provided a typology of the types of decisions that could lead to these differences. The later development of the notion of competitive advantage articulates strategy as an intent to create a firm-specific barrier to entry and/or imitation that enables the creation of distinctive value to customers and to the firm itself. With these new concepts—essentially clothes borrowed from economics pressed into service to explain long-run differences between firms—long-run profits can be seen to be determined by the strategic decisions of firms as well as by structural market characteristics. Thus, the foundation is laid for an economic understanding of the heterogeneity between firms.

This heterogeneity finds expression in the common observation that industries are broad groupings of often very dissimilar participants. Porter (1979) argued:

Let us take as the unit of observation the industry, consisting of a group of competitors producing substitutes that are close enough that the behaviour of any firm affects each of the

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others either directly or indirectly. Common observation suggests that the firms in an industry often differ from one another along a variety of dimensions—degree of vertical integration, level of fixed costs, breadth of product line, extent and media composition of advertising, outlays on R&D as a percentage of sales, geographically served markets, nature of distribution channels employed,

presence of in-house servicing capacity and so on. These variations reflect differences in the competitive strategies of the firms in that industry, where their competitive strategies are firms' choices about the major competitive decision variables, (p. 215)

In other words variety within an industry is the result of the different investment decisions of firms taken in the pursuit of competitive advantage. These decisions taken in conditions of uncertainty about the future state of the industry affect the structure of the industry through their effect on entry barriers. They also affect the nature of competition within the industry by virtue of the creation of firmspecific assets that differentiate firms from one another. The classes of strategic assets formed in this way are the broad dimensions on which strategic groups are identified and the barriers to imitation are captured in the term 'mobility barriers'. These are barriers that exist between firms in the same industry who might wish to change their position within the industry.

We can define a strategic group following Porter (1979, 1980) as 'a set of firms within an industry that are similar to one another and different from firms outside the group on one or more key dimensions of their strategy'. A variety of refinements have been made to this fundamental definition, for example, McGee and Thomas's review paper in 1986, 'A firm within a group makes strategic decisions that cannot readily be imitated by firms outside the group without substantial costs, significant elapsed time, or uncertainty about the outcome of those decisions' (p. 150). Within this definition is the notion of mobility barriers, i.e. those investments that raise the cost of strategy imitation to non-group members. Thus, mobility barriers are a direct analogue of entry barriers expressing barriers either as absolute costs of movement from one strategic position (i.e. group) to another (becoming vertically integrated, for example), or as the operating cost penalty relative to the group incumbents that the imitators must face. Mobility barriers fall into three broad categories (McGee and Thomas 1986): market-related strategies, industry supply and cost characteristics, and capability and competence characteristics of firms (see Table 10.1). These correspond broadly to differentiation and cost strategies at the business unit level and characteristics of strategy at the corporate level. See McGee and Thomas (1986) for a full discussion. They summarize the concept of mobility barriers thus:

Mobility barriers are a corollary to the existence of strategic groups. They are factors which deter or inhibit the movement of a firm from one strategic position to another and, more generally, the expansion of firms in one group to a position held by another group. Therefore a mobility barrier is essentially a limitation on replicability or imitation. It acts like an entry barrier, but it acts for the group within the industry rather than for the industry as a whole.

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Table 10.1 Sources of mobility barriers

Market-related strategies	Supply and cost characteristics	Characteristics of firms
Product line	Economies of scale:	Ownership
User technologies	production	Organization
Market segmentation	marketing	structure
Distribution channels	administration	Control systems
Brand names	Manufacturing Process	Management skills
Geographic coverage		Boundaries of firms:
Selling systems	R&D capability	diversification
	Marketing and distribution systems	vertical integration
		Firm size
		Relationships with influence groups

Source: McGee and Thomas 1986: 151.

A group structuring carries no meaning without costs attached to the imitation of strategy by other firms. Mobility barriers thus reflect the decisions of firms and are a way of defining the set of key strategies available to a firm. The essential characteristic is relative cost advantage over all other competitors. The remedy for cost disadvantage of this kind probably involves investment expenditure on tangible or intangible assets with significant elapsed time before the investment comes to fruition. Moreover, the investment expenditures are irreversible... and there will typically be considerable uncertainty attached to the outcome of the investment expenditures, (p. 153)

10.2 The Implications of Strategic Groups

Groups may exist for quite complex reasons. Investments in distinctive assets and therefore in competitive advantage are risky investments and firms may have quite different risk aversion postures. Thus, strategic positions, which are the outcome of patterns of

decisions over time, have to be seen in terms of return-risk trade-offs calculated *ex ante*. Corporate structure may also affect the nature of strategic groupings. Business units can vary considerably in their relationship with their corporate parents and may pursue different goals structures in ways that lead to strategy differences (see Sjoström 1995). More generally, the historical development of an industry bestows differential advantages on firms depending on their timing of entry

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(first mover advantages versus follower advantages), geographical location (country-specific advantages), and sheer luck. Whatever the historical genesis of strategic groups, the essential characteristic is similarity along key strategic dimensions. The patterns of similarity and the extent of variety in an industry will have consequences along three dimensions: the structure of the industry and its evolution over time, the nature of competition, and implications for relative performance of firms.

Industry structure analysis is intended to identify the nature and range of profit-making possibilities for the participants. There are benchmark but simple models of perfect competition and monopoly. But the real interest lies in oligopolistic market structures within which different groups of firms may behave in systematically different ways protected (at least for a time) by their mobility barriers. Figure 10.1 illustrates the variety of structural types. Where there are significant opportunities available for both cost and differentiation there will be firms or groups of firms with different strategies and differing expansion paths. This becomes more important as the concept of industry becomes more fluid as entry conditions change, as boundaries become flexible, and as 'new' industry groupings are formed (e.g. new media industries, new electronic commerce industries). What a group's perspective provides is a focus on strategies and capabilities from which can be evolved new strategies. Industry definition is in itself a form of classification process. Strategic

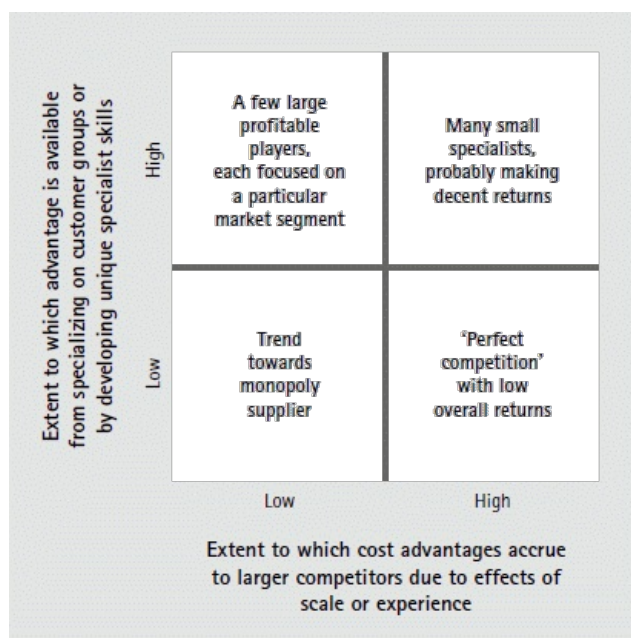


Fig. 10.1 Industry dynamics and competitive advantage

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group analysis provides a more fundamental basis for assessing future strategic possibilities and the emergence of new industry boundaries.

Because of their structural similarities, firms in the same group are likely to respond in the same way to disturbances from outside the group and to competitive activities within the group. Here we can see oligopolistic interdependence at work on the basis of ability to imitate the moves of rivals. The interdependence here does not arise from targeting the same customers (although this may be a consequence of similar strategies) but stems solely from the possession of structural similarities.

The ability to explain the relative performance of firms is a central theme in strategic management research. The heterogeneity commonly observed to be characteristic of many industries means that industry structural characteristics are not likely to be a good or stable predictor of profitability. However, it is possible to argue that mobility barriers (i.e. strategy differences) could explain persistent differences in profit rates between groups in an industry. Porter (1979) argued that the pattern and intensity of inter-group competition and the

consequences for profitability in the industry depend on three factors:

1. *The number and size distribution of groups*. Other things held constant, the more numerous and more equal in size are the strategic groups, the higher is rivalry. On the other hand, if one strategic group constitutes a small portion of an industry while another is a very large portion, then strategic asymmetry is likely to have little impact on rivalry, since the power of the small group to influence the large group is probably low.
2. *The strategic distance between groups*. This is the degree to which strategies in different groups differ in terms of the key strategic decision variables. The greater this distance, the more difficult tacit coordination becomes and the more vigorous rivalry will be in the industry.
3. *The market interdependence between groups*. Diversity of strategies increases rivalry between groups the most, where market interdependence is high. However, those strategic groups that possess high mobility barriers are relatively more insulated from rivalry. On the other hand, when strategic groups are targeting very different segments, their effect on each other is much less severe.

Profits may be differentially affected across strategic groups for other reasons:

1. There may be differences in *bargaining power* that some strategic groups may have towards customers and/or suppliers. These differences may be due to differences in scale, threat of vertical integration, or product differentiation following from differing strategies.
2. There may be differences in the degree of exposure of strategic groups to *substitute products* produced by other industries.
3. There may be great differences in the degree to which firms *within* the group compete with each other. While mutual dependence should be fully recognized within groups that contain few firms, it may be difficult to sustain

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if there are numerous firms in the strategic group or if the risk profiles of the firms differ.

This analysis of intra-group profitability is directly analogous to intra-industry profitability analysis. There are also firm-specific factors that influence profitability within a group:

1. *Differences in firms' scale within the strategic group*. Although firms within the same strategic group are likely to be similar in the scales of their operations, differences in scale *may* exist and may work to the disadvantage of smaller firms in the group where there are aspects of the strategy subject to economies of scale.
2. *Differences in the cost of mobility into a strategic group*. If there are absolute cost advantages of being early in establishing brand names, locating raw materials, etc., a later entrant in a specific strategic group may face some disadvantages with respect to established firms. Timing is in this case a factor that may impact profit differences. This may also be the case if an established firm also possesses assets from its operations in other industries that could be jointly utilized.
3. *Ability of the firm to execute or implement its strategy* in an operational sense. Some firms may be superior in their ability to organize and manage operations, develop creative advertising themes, make technological breakthroughs with given inputs of resources, and the like. While these are not structural advantages of the sort created by mobility barriers, they may be relatively stable advantages if the market for managers, scientists, and creative personnel is imperfect. Those firms in a group with superior abilities to execute strategies will be more profitable than other firms in the same group.

10.3 Strategic Mapping

It is convenient and conventional to turn the multidimensional concept of strategic groups into a practical tool by drawing *strategic maps*. These are two-dimensional replications of the larger group structure within which the important strategic dimensions can be seen and through which key opportunities and threats can be depicted. The key steps in this process are (following Fiegenbaum, Tang, and Thomas 1990 and Fiegenbaum and Thomas 1990):

- (1) choice of the strategy space (industry);
- (2) choice of organizational levels to be incorporated (corporate, business, or functional);
- (3) identification of the variables which best capture firms' strategies;
- (4) identification of stable time periods; and
- (5) clustering of firms into strategic groups.

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The main issue concerning choice of strategic space relates to the identification of the boundaries of the 'industry'. The concept of industry is fuzzy in concept but in practice we often over-rely on Standard Industrial Classification (SIC) codes. However, these mirror product variation and are typically bounded by nationality. The term 'Strategic space' is used as an alternative to industry to indicate that the relevant criterion for choice is competitive interaction.

When choosing the organizational level at which to analyse firms' strategies, one must not simply focus on business-level characteristics such as product and geographical scope, and relative emphasis on cost versus differentiation. Corporate parenting can provide a

significant element of the eventual competitive advantage and it would be an oversimplification to exclude corporate effects. Similarly, functional strategies such as advertising intensity and sales force characteristics can be critical investments in support of the business strategy.

On the identification of the variables representing firms' strategies, it is common to argue that there are a small number of dimensions that capture the essence of strategy differences between firms and between groups. This suggests that it is entirely possible to adopt a pragmatic approach. Typically an in-depth case study can reflect the views of industry participants, can give peer group judgements on competitors' strategies, and can also give the analyst a database for independent judgement. The alternative is to use clustering and other statistical techniques to determine de facto what groups exist and then to interpret the groupings using independent data on strategy dimensions. This is typically the route taken by academic researchers.

A number of different methods exist for clustering firms into groups. Analysis of empirical research indicates that most researchers use cluster analysis. Once strategic variables have been identified, researchers generally use clustering techniques to form groups so that homogeneity is at its maximum internally and at its minimum externally. There is considerable debate about the nature of cluster analysis: see Ketchen and Shook (1996) for a review of the way it has been used in strategy research. The advantage of cluster analysis is that it indicates the distance that exists between strategic groups and between companies within the same strategic group. The distance between groups can be considered as approximating the height of mobility barriers while the distance between firms can be used as a basis to analyse the differences between them. The main difficulty with cluster analysis is that it identifies clusters regardless of the presence or absence of any underlying structure (Ketchen and Shook 1996). Then there remains the question of how to describe and empirically validate the dimensions that the analysis reveals.

Much research in strategic management has studied industry change over long periods of time. This contrasts with research in industrial organization where the emphasis has been much more on cross-section, relatively short period studies. When studying strategic groups longitudinally there is a problem about identifying the nature of change and the way it affects the groupings. The typical approach is to think

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in terms of 'punctuated equilibria.' Periods of stability are punctuated by periods of change within which strategies are changed, new positions taken up, and rivalry adjusts in response. Firms' strategies and industry structure are seen in equilibrium during each strategic time period. When the equilibrium ends (maybe because of exogenous shocks in the environment or alternatively triggered by autonomous firm actions), some firms change their strategies, new strategic groups are formed and others disappear. Statistical techniques can be used to identify the relatively stable sub-periods within which strategic groups are identifiable (see Bognor, Thomas, and McGee 1996) and the transition points or periods from one equilibrium to the next.

10.3.1 Strategic Groups in Practice

An example of a simple strategic map is shown in Figure 10.2. This is taken from a study of entry strategies in the reprographics²

² Reprographics includes stencil duplication, off-set litho printing, carbon and spirit duplication, diazo copying ('blueprinting'), photochemical copying, and plain paper copying ('photocopying').

industry between 1950 and 1980 (Ghazanfar 1984; Ghazanfar, McGee, and Thomas 1987). The strategic space includes manufacturers of office machinery, manufacturers of the consumables (such as toner) that complement the machines, and distributors. There is a corporate dimension in that different companies have differing commitments to the industry. The time period shown is 1975–1980—earlier periods show different groupings. The groupings are based on quantitative data but statistical techniques were not used. Four groups are evident with one having only one member, Gestetner, i.e. this firm is in a unique position. The Xerox-led group is focused on machinery within office reprographics. The other machinery group, consisting of Minolta, Canon, and Olivetti, does not have such high stakes in reprographics. The two other groups are focused on consumables. The 3M, Agfa, Konishiroku group has a broad commitment to many industries. But Gestetner focuses almost entirely on consumables for reprographics. In terms of opportunities and threats, Gestetner would have been concerned whether consumables are sold as a tie-in product to machinery—in which case it would be necessary for it to make strategic investments so as to join the Xerox-led group. The other three groups could be seen as relatively stable. It turned out that Gestetner made a number of expensive and eventually unsuccessful attempts to create a new office copier range of products—the mobility barriers proved to be too high.

Another grouping from the same period is shown in Figure 10.3. This incorporates a third strategic variable—the range of information technologies employed. This gives a new perspective. This time Xerox can be seen as a one-firm group deploying the widest set of

information technologies as well as being highly focused on reprographics. Clearly Xerox is exercising industry leadership reflecting a threat to all other industry members. In Figure 10.2 Gestetner was more like an industry

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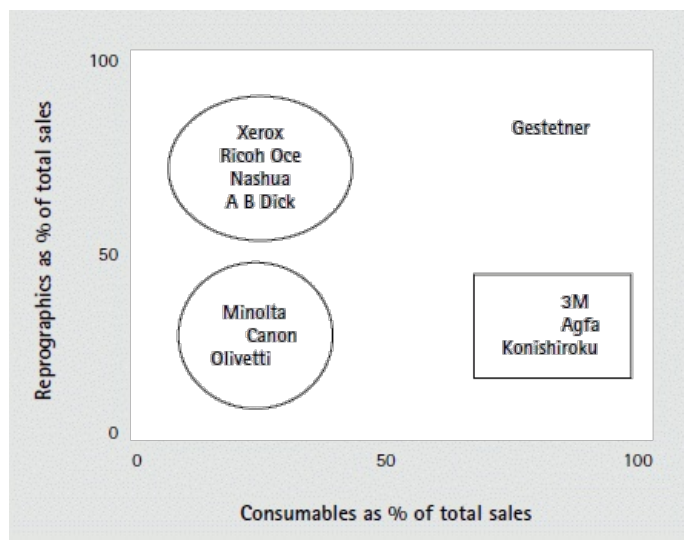


Fig. 10.2 Reprographics industry I, 1975–1980

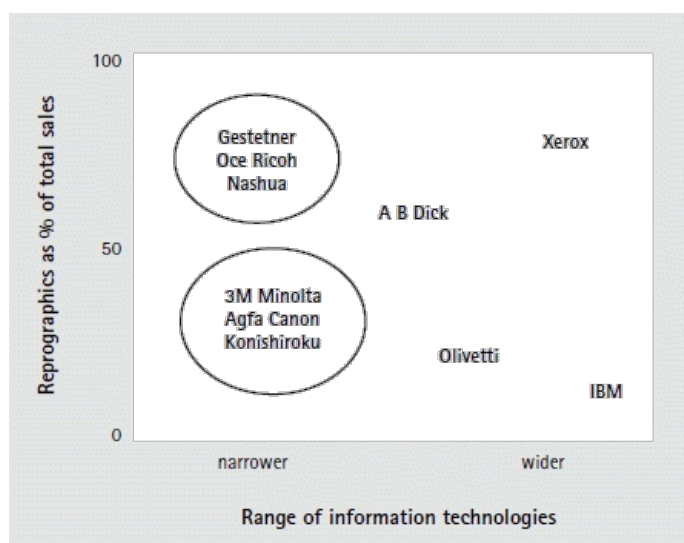


Fig. 10.3 Reprographics industry II, 1975–1980

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laggard. IBM more than rivals Xerox in terms of information technologies but is not a major player in the industry. The opportunity for IBM is to make greater investments in this industry and thus move closer to Xerox's position.

Strategic group maps do not have to be historical and therefore 'backwardlooking'. History is important in developing an understanding of the nature of mobility barriers and the time and cost involved in investing to overcome them. However, one can assess the present and make forward-looking conjectures. For example, Figure 10.4 is a speculative map of retail banking in 2000. The two strategy dimensions are degree of vertical integration and brand novelty. Traditional banks have a 'complete' value chain and do everything in-house whereas the new e-banks focus for the most part on electronic distribution and subcontract everything else such as cheque processing. The new e-banks have enormous brand novelty indicated by the plethora of 'Silly' names like Egg, Goldfish, and Smile. Thus, we have two utterly distinct groups. The first question to ask is are these groups highly rivalrous, or is the emergence of the new group merely indicative of a

new market segment? This poses a degree of threat to traditional banks who need to ask whether they can remain where they are with some strategic adaptation such as opening of new electronic channels of distribution in parallel to their existing channels (viz. the High Street). Or should they seek to develop some brand novelty? Or perhaps deconstruct their integrated value chains into separate upstream and downstream businesses? Or is there a different dimension on which they can play, for instance TV banking? For the new e-banks the question is to what extent this strategic group

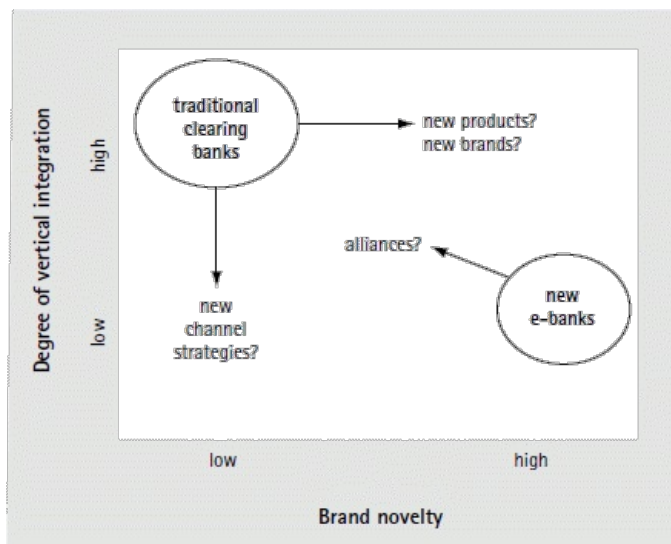


Fig. 10.4 UK retail banking, 2000

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is defensible? Should a highly deconstructed value chain be supported by a series of alliances to secure access to best-in-class highly complementary activities?

These illustrations in Figures 10.1, 10.2, and 10.3 demonstrate some key themes. Strategic group analysis enriches our discussion of the nature of strategic choice. The formation of groups reflects strategy innovations and risky decisions. The stability of group structures over time tells us through mobility barriers about sustainability. The nature of mobility barriers forces us to think about the investments that underpin market position and competitive advantage. It points us towards the nature of resources and the idea of core competences. Any analysis of group structures leads very quickly from history to predictive ability. The essence of strategic decision is investment in distinctive assets against an uncertain future and therefore strategy innovations and industry evolution are closely linked. Innovation disturbs the industry equilibrium and foreshadows the emergence of new ways of competing and new group structures. *Ex ante* analysis of possible strategy innovations gives an indication of new strategy dimensions and therefore the nature, pattern, and intensity of future rivalry. The pay-offs from this approach can be summarized in terms of interpretation, framework, and language, viz.

- (1) a richer *interpretation* of current industry structures and the interaction of firm asset (tangible and intangible) structures with intra-industry competition;
- (2) a conceptual *framework* for analysing change over time and across industries; and
- (3) a *language* for interpreting change in terms of asset structures of firms and the ensuing effects on competition in the long run.

We illustrate these points by looking at two industries in more detail.³

³ Sections 10.3.1, 10.3.2, and 10.3.3 draw on an earlier discussion in McGee, Thomas, and Pruett (1995).

One is the food-processing industry in Europe at the time of the enactment of the European Single Market Act 1987–92 (McGee and Segal-Horn 1990, 1991). This looked across conventional market (national) boundaries and asked how the industry might evolve given the exogenous legislation shocks to the industry. The second is a study of the entry strategies of European firms into the US pharmaceutical market in which strategies are tracked over time and the dynamics of the industry are explained through a strategic group lens (Bogner, Thomas, and McGee 1996).

10.3.2 The European Food-Processing Industry

This research examined the case for the emergence of a pan-European food industry from the existing mosaic of separate nationally focused industries, i.e. a transnational emerging from a multi-domestic structure. This possibility was mooted in the context of the Single

European Act conceived in 1987 for implementation by

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1992. This was expected to reduce the costs of access to separate European markets and along with expectations about increasing homogeneity of consumers across Europe constituted external triggers for structural change.

The approach to this was to develop a model of 'Strategic space' onto which the prospective movements of firms could be mapped. A historical overview enabled the identification of periods of stability and the conditions causing breaks between periods. On the basis of this history key variables were identified as the basis for strategic group identification. These were market scope (territories covered), marketing intensity and brand strength, manufacturing focus, and R&D intensity (the latter two were not statistically validated). These were used to identify the strategic group configuration in 1990 enabling the identification of at least four distinct groupings. However, the real interpretive power of the configuration lay in the specification of the mobility barriers between the groups. The strategic space idea developed in this paper is the converse of the strategic group, i.e. why is there no group present in a particular location on the n -dimensional map. The first possible answer is that some spaces are currently infeasible and the asset structures implied by that space are competitively dominated by other asset structures. The second possible answer is that some spaces have never been entered because the construction of the implied assets was not thought to be competitively viable. This second insight allowed the analysis of certain empty spaces to suggest that certain assets could technically be constructed (e.g. European marketing systems and brands) and that changing market conditions might yield a pay-off for those new asset structures. Thus, the strategic groups/space analysis allowed the juxtaposition of a changing market situation in Europe with a lowering of mobility barriers between existing groups and the empty spaces. The conclusion drawn is that certain kinds of new asset structures of firms are very likely to be constructed and that these will fall into two or three key new groups. The processes by which this might happen can be identified, including a wave of mergers and acquisitions. The consequences for competition both in the transition period and for a period of subsequent stability can be analysed, although the time period over which the transition will take place could not be identified. The analysis is distinctive in that it is almost entirely prospective in character, laying out a framework for analysing future change in the industry.

Figures 10.5, 10.6, 10.7, and 10.8 summarize the analysis. Figure 10.5 shows the existing strategic group structure in the late 1980s. Figure 10.6 summarizes the mobility barriers that protect each group. Figure 10.7 contains the strategic space analysis and Figure 10.8 shows the authors' conjectures about the group configuration in 2000.

The authors conclude:

First, two major new strategies are likely to emerge, the pan-European own label supplier and the pan-European brander. Second, the strategic space analysis tells us something about the pathways to achieving these positions. Third, it also tells us something about the nature

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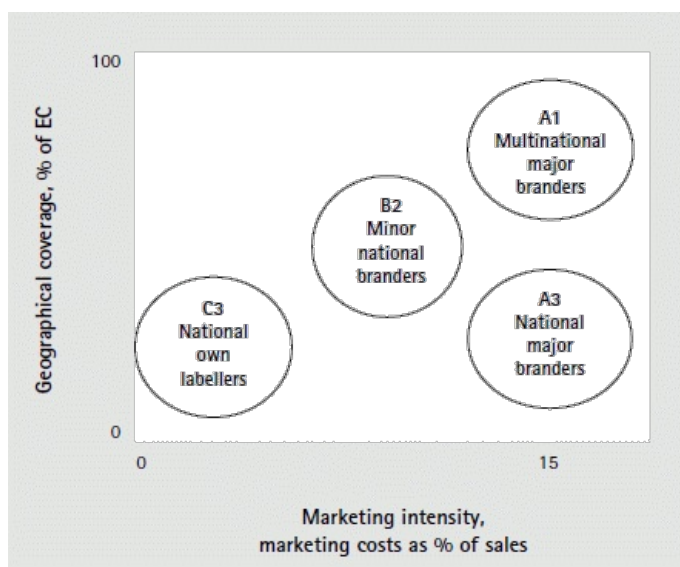


Fig. 10.5 European food-processing industry strategic groups, late 1980s

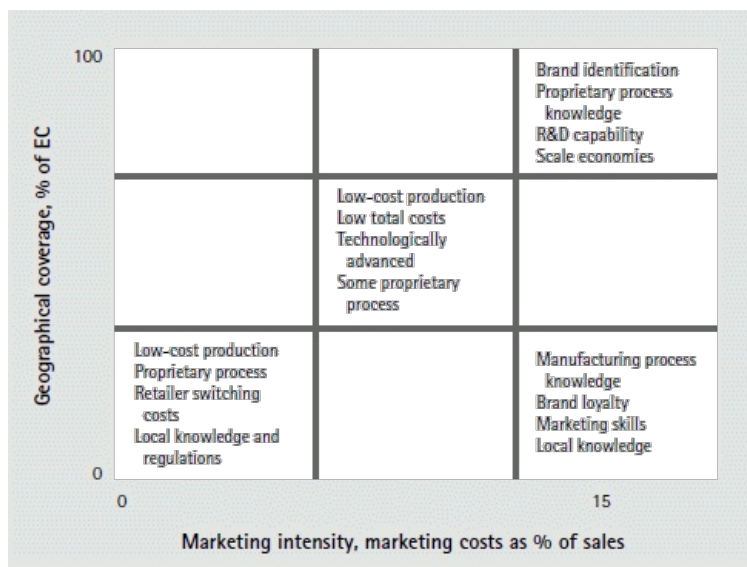


Fig. 10.6 European food-processing industry mobility barriers, late 1980s

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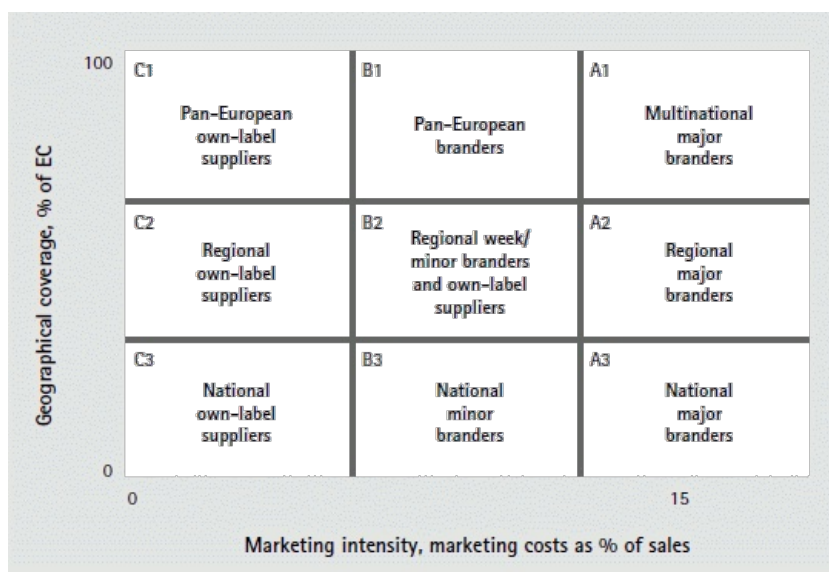


Fig. 10.7 European food-processing industry strategic space analysis

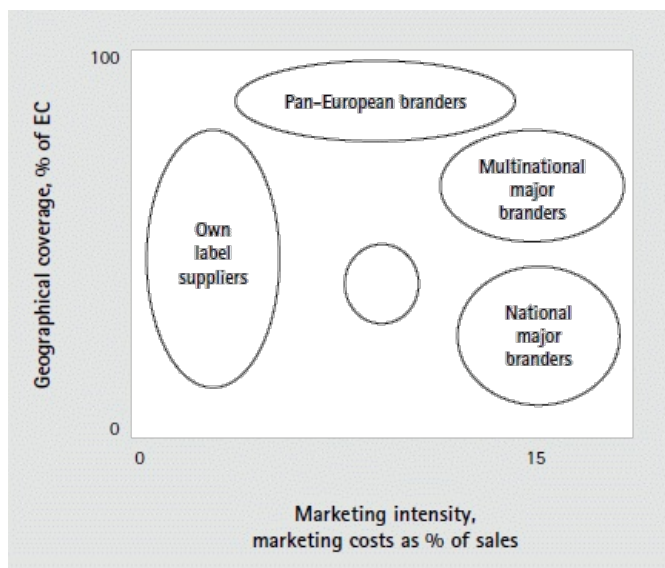


Fig. 10.8 European food processing industry strategic groups, 2000

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of competition both en route and in the new structure. This approach does not tell us how long the process of change will take, nor does it say who will be the winners and losers. It does, however, say a great deal about the characteristics of the winners and losers. (McGee and Segal-Horn 1990: 190)

After the passage of time since this paper was written, it is interesting to reflect on the extent to which the pan-European brander space has been occupied. At that time it seemed like an attractive space, since it offered economies of scale across a European market that was showing signs of converging consumer tastes, developing its logistics networks, and creating fewer larger factories. In the 1990s it becomes clear that Unilever, Nestle, and Mars were beginning to focus on just such a strategy (Johnson and Scholes 1999: 129).⁴

⁴ Note that the pan-European group emerges with lower marketing sales ratios because trans nationals (and transregionals) save costs by eliminating duplication of marketing costs across country markets.

10.3.3 The US Pharmaceutical Industry

This section is based on the study by Bogner, Thomas, and McGee (1996) and draws also from Bogner's earlier work on the pharmaceutical industry (Bogner 1996). This analysis looks at competition in the US pharmaceutical market between the years 1969 and 1988. It focuses on the external environmental events that disrupted existing patterns of intra-industry competition and on the ensuing patterns of competition that then developed. In particular it looks at the position of European firms in the strategic groups identified, how their competitive positions changed over time and suggests a rationale for the variations in competitive strategies between firms based on differences in their accumulated asset structures. The strategic groups were defined using data covering (i) the scope and breadth of market posture (including product market scope, new drugs introduced, and relative measures of new product development), and (ii) the nature of R&D (including short term and longer term measures of R&D spend and concentration of R&D by research classes).

A historical analysis of the industry enabled the identification of five periods of stability with four intervening breaks. A grouping analysis was conducted for each stable period revealing four distinct strategic groups in each period. A statistical analysis of each break identified which of the grouping variables 'caused' the breaks in each of the four stable periods. Different variables (i.e. dimensions of strategy) can be seen to dominate the ensuing periods of stability following a break in the established order. The analysis then goes on to show how the European firms moved across the groups as their US strategies evolved and as they became better able to deploy their European-based assets in the US market. The results show how individual European firms pursued very different global strategies but also evident is the way in which

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these differences reflect underlying firm asset stocks and key competences. The latter periods show the role of merger and acquisition in enabling firms of modest size and strength to develop the size necessary to compete with the largest firms.

Figure 10.9 portrays group structures and the way they changed across the five periods spanning a twenty-year period. The key dimensions are variants of firm size, research intensity (using descriptors like limited, moderate, lagging, and assertive), product specialization (such as organic chemical, antibiotics, diagnostics, and generics), and breadth of product range (broad or narrow). Over time productspecific dimensions have given way to product scope dimensions—e.g. the largest single group moves from an 'organic chemical' descriptor to a 'broad focus research' descriptor. This reflects the shift in research style and research methods from assay techniques, through designer drugs to molecular biology enabling economies of scope to assert themselves over time. Note also how some groups break up completely—they do not merely shift their central focus. The members of these groups then re-form into new or different groups. Thus, in the 1970s the members of the 'medium-size moderate research' group dispersed, some going downwards to the 'less intensive research' group, some moving into 'antibiotics', and some moving into the largest group 'broad organic chemistry'. In this industry we can see (i) how

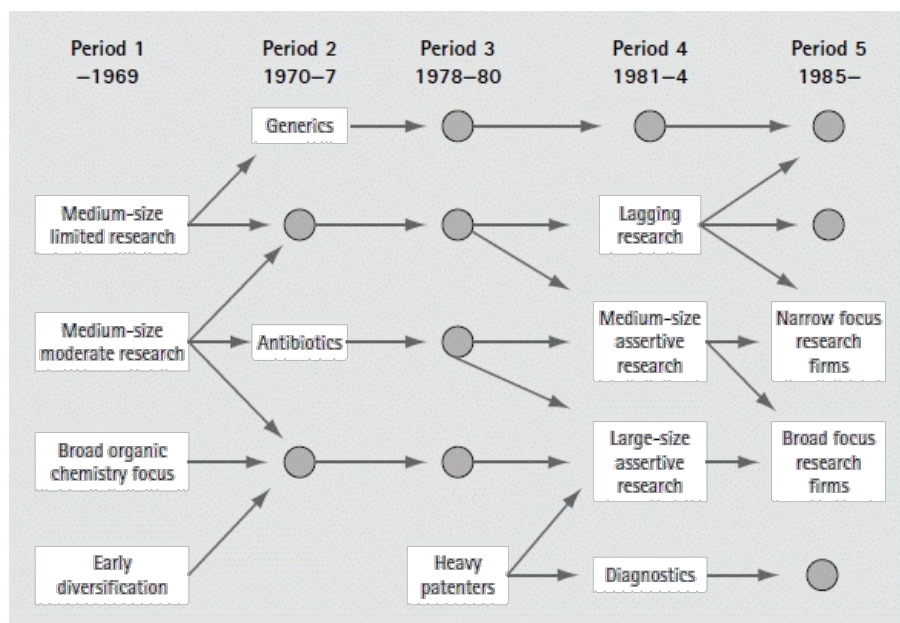


Fig. 10.9 Evolution of the US pharmaceutical industry

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groups evolve over time, and (ii) how individual firms can and do make investments to move from one group to another (but not always successfully).⁵

⁵ See the original paper for detail on the changes in technology, legislation, and firm strategy that instigated the breakpoints in the history. The paper also gives detail on individual firms and their mobility patterns.

Table 10.2 looks at the way in which the European entrants constructed and pursued their entry strategies into the United States. The 'gateway' describes the historic strength of each company. The 'entry point' is the strategic group through which entry is initially made—the hypothesis being that entry takes place through the groups with the lowest mobility barriers. The 'mode' describes the nature of the growth strategies and the 'expansion path' indicates the strategic groups to which the entrants aspire. Table 10.3 shows how group membership evolved over time—note how aspirations are not always fulfilled.

This paper is a *dynamic* strategic groups analysis in an evolutionary and a historical context. It shows how a strategic groups analysis can identify and explore both similarities among and differences between competitors over time. In particular it contributes to the analysis of entry strategies with two important conclusions. First, firms enter and improve competitive position in the market in an established sequence (of moves through strategic groups). Second, firms' upward movement through strategic space is limited by the scope and strategic asset structure of the multinational parent. In other words the resources of the European parent drug manufacturer were central to the strategic development and operational effectiveness of their US subsidiaries. Such resource differences can lead to differences in the

Table 10.2 Entry paths into the US pharmaceutical industry

Firms	Initial gateway	Entry point	Mode	Expansion path
Swiss firms	Large research	Organic chemistry	direct investment	follow organic firms
ICI & Hoechst	Large research	Organic chemistry	acquire and invest	follow organic firms
Glaxo	Medium research	Medium-size ltd research	acquire and invest	focused marketing
Beecham	Traditional antibiotic	Medium-size ltd research	acquire and invest	follow antibiotic firms
Boots	Medium research	Medium-size ltd research	acquire and invest	attempt expansion
Burroughs	Medium research	Medium-size ltd research	direct investment	focused research

Source: Bogner, Thomas, and McGee 1996: 98.

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Table 10.3 Entry and expansion paths: non-organic chemical firms

Firm	Period 1—1969 —1969	Period 2 1970—7 1970—7	Period 3 1978—80 1978—80	Period 4 1981—4 1981—4	Period 5 1985— 1985—
Beecham	medium-size ltd research	medium-size ltd research	traditional antibiotic	large-size assertive research	large-size assertive research
Glaxo			medium-size ltd research	medium-size assertive research	medium-size assertive research
Boots		medium-size ltd research	generic-like	lagging research	lagging research
Burroughs	medium-size moderate research	medium-size ltd research	medium-size ltd research	medium-size assertive research	narrow focus research firm

Source: Bogner, Thomas, and McGee 1996: 98

way that firms attempt to directly enter new markets, and entry and expansion strategies may vary by market as well as by firm resources due to entry barrier and resource interactions.

With a strategic group lens, it is possible to analyse the mobility patterns of firms and to develop an understanding of the dynamics of industries. In this case, hypotheses concerning sequential entry processes and paths were explored. These are similar to the sequential entry strategies analysed in the reprographics industry (Ghazanfar 1984). A variant of this can be seen in the 'newgame' strategies explored for the personal computer industry (Steffens 1987, 1994). Steffens describes 'newgames' as follows:

Newgame strategies do not seek to emulate competitors' resource structures, but rather, they attempt to convert the existing incumbent's strengths into weaknesses. This they do by introducing and developing a radically different structure of value chain for the industry. Such moves not only create new strategic groups, but may also raise mobility barriers to reduce the degrees of freedom available to members of other specific strategic groups in such a way as to reduce their levels of profitability and performance. (1994: 14)

Table 10.4 is an extract from Steffens's analysis and illustrates how a fundamentally new strategy concept ('conceptual change' in the table) requires a major change in the value chain. The introduction of the IBM PC required an entirely new technical design as well as a new customer focus that had implications for all elements of the chain. The entry of a newly started-up Compaq with its new portable required a complete overhaul of the value chain in order to create both technical and value superiority over the earlier portable from the giant corporation Toshiba. At a later

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Table 10.4 Newgame strategies in the US personal computer industry

Stage of evolution and/or product	Company	Type of company	Conceptual change	Focus of change in value chain
Entry of giants 1981—2	IBM and IBM PC	Giant computer industry leader	Professional expansion and legitimization of the PC into the corporate market	Technical design through entire chain
Consolidation	Compaq portable	Small start-up	An IBM compatible portable with technical superiority and value over industry leader	Research and product design and all cost elements in chain
Maturation to saturation 1988	Dell Packard-	Start-ups and	Very low-cost IBM clones. PC as a commodity with	Production Assembly Marketing

...ation, 1999
-93 Bell distributors easy access and Production low distribution Pricing Distribution

Source: Extracted and adapted from Steffens (1994: table 8.1, p. 395).

stage in the industry's evolution, Dell and Packard-Bell as new start-ups challenged the industry giant, IBM, as very low-cost clones (commodities) with new low-cost, easy access distribution. Newgames are about negating existing entry and mobility barriers. But the history of the PC industry shows that mobility barriers tend to decline over time and, in this instance, losses or low profits have become the norm in the PC industry. The framework of a strategic groups analysis provides the interpretation of the industry's evolution over twenty years, six periods of relative stability, and a constant press of new entrants with newgames (Steffen: 1994: fig. 8.3, p. 381).

10.3.4 Common Features

There are a number of common features in these two papers that can be extended to other studies of dynamics. The first is the *interpretation* of industry history in terms of periods of relative stability punctuated by external disturbances or triggers that cause realignments and restructuring. Eventually there is a transition into another period of stability within which firms compete within well-understood rules and assumptions. The periods of stability enable the identification of stable strategies

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and therefore stable groups (Fiegenbaum and Thomas 1990; Ghazanfar 1984; Ghazanfar, McGee, and Thomas 1987).

The second commonality is the use of the experience and data of these stable periods to identify the dimensions of the groups (in contrast to the ad hoc theorizing) thus yielding a *framework* within which competition over time and industry dynamics can be analysed. The pharmaceutical study was particularly explicit in using statistical procedures on objective data whereas the food study relied more on a synthesis of a wide range of industry material and experience.

The third feature is the careful definition of strategic groups dimensions according to asset and resource characteristics (Lippman and Rumelt 1982; Rumelt 1984). The essence of groups is the use of asset 'inputs' rather than 'output' variables like performance. Thus, product and market scope variables, research intensity, and economies of scope variables are variables of direct interest.

Fourthly, the dimensions are validated against a longer run historical perspective in order to assess the ways in which change is rooted in long-term accretion of these tangible and intangible assets and in notions of asset complementarity. This is an explicitly theoretical check on data driven variables to avoid errors arising from misspecification of the time frames of recent history (Teece 1988).

The fifth feature is that the analysis allows the emergence of multiple groups showing very diverse strategic approaches. This confirms the utility of a strategic group approach in 'fuzzy' industry sets where boundaries can be very difficult to draw. With this approach the boundaries are set by the strategies themselves and the interaction within groups and between unlike groups can then be analysed in terms of the alternative applications in the marketplace of their asset sets. This approach also has the merit of providing an explicit definition of the mobility barriers. Thus, the asset investments required for change can be directly identified. The pharmaceutical study shows this *ex post*, and the food study *ex ante*, but the procedure is identical. In short, strategic groups analysis provides a powerful *language* for interpreting variety.

Therefore, sixth, the analysis of mobility becomes possible. The pharmaceutical study tracks the shifts across groups by European firms as they build up strength to compete in the US market. The food study uses the idea of feasible strategic space to show areas where new groups can develop given the external triggers for change. Both show the role of mergers and acquisitions, for pharmaceuticals in retrospect (with pay-offs yet to come), for food processing in seeing them as a key process in restructuring the assets sets. The difference in the two studies here lies in the evolutionary nature of the pharmaceuticals industry compared to possible revolutionary changes taking place in food.

A further, seventh, similarity is the analysis of a piece of an industry against a global context. Thus, the pharmaceutical industry shows the evolution of European firms in a US market but the backdrop is the global industry. The food study looks only at Europe but acknowledges the importance of the changing global context. In

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other words, a strategic groups approach does not necessarily require a full specification of the complete model in order to analyse the phenomena of interest as long as the interactions between the partial model and the full model can be captured in the understanding of how the asset structures operate in the market. However, both studies do need to provide a rather fuller description of the global context in order to fully defend this proposition.

10.4 Strategic Groups and Cognitive Communities

Strategic groups reflect asset choices and investments made by firms. The majority of research is based on the outcomes of these investment decisions, these being naturally subject to observation and measurement. However, outcomes are not necessarily the same as intentions whether because of mistakes in translating intent into action, changes in the environment, or competitor behaviour. Thus, strategic groups as observed might be an imperfect measure of strategic positioning as originally intended by firms. This observation leads to the notion of how 'management cognitions' regarding the composition and capabilities of firms might be used to identify groups of like-minded firms, or 'cognitive communities'. According to Thomas, Pollock, and Gorman (1987)

Managers develop these 'cognitive maps' of their firms and their environment through trial and error, through observation of the activities and outcomes of others, and through trade publications, formal instruction, and interactions with others within the industry. This process results in a socially constructed understanding of the structure of the industry and what it takes to compete, (p. 9)

The theoretical background of this research is in cognitive science. Stubbart and Ramaprasad (1990) describe the nature and scope of cognitive analysis in the following way:

Cognitive science characterizes minds... as intentional, representational, and computational. In addition, it stresses the significance of tracking the overt manifestations of intelligent behaviour: intelligent strategic behaviour in strategic management—that is, observing what strategists do. These four themes span philosophy, cognitive psychology, artificial intelligence, and anthropology, respectively. A cognitive science approach... uses these four themes to comprehend managerial minds: fathoming managers' strategic intentions, deciphering their representational knowledge about strategy, studying their reasoning processes and recording a description of managerial behaviour in strategic management settings. In short, cognitive science applied to strategic management means

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that scholars must research, model, understand and extend the mind(s) of strategic managers. (pp. 251–2)

Research on cognitive communities was developed by researchers' interests in how management of different firms perceive the competitive environment and act on the basis of its perception. The argument is that there is a difference between what has traditionally been defined as an objective environment and what top management perceives. Top management takes decisions on the basis of how it perceives the environment and the way it sees that the activities of the firms and its competitors might have tangible effects on strategy reformulation and subsequent industry structure: 'Material decisions ultimately reflect the intuition and cognitive constructions of decision-makers. At a cognitive level, business competition must be analyzed in terms of the mental models of decision-makers and how such mental models lead to a particular interpretation of the competitive milieu' (Porac, Thomas, and Baden-Fuller 1989: 398).

Thomas and Carroll (1994) argue that two definitions of cognitive communities can be identified. A weak definition limits the analysis to similarity of cognitive community. It is argued that individuals sharing similar beliefs about a given transaction will be more likely to interact among themselves. Furthermore, they may influence each other through the diffusion of information. A strong definition requires further active interactions, mutual influence, and evidence of collective efforts. These have also been defined as *cognitive oligopolies* (Porac, Thomas, and Baden-Fuller 1989) to indicate the importance of interaction between firms. A cognitive community could therefore extend the boundaries of individual rationality by pooling existing information and cognitions.

Porac, Thomas, and Baden-Fuller (1989) examined the relevance of managerial cognition for strategic groups analysis. They indicated that industry participants share perceptions about strategic commonalities among firms, and that participants cluster competitors in subtle ways not reflected in extant research on strategic groups. They also argued that decision-makers' perceptions and cognitions are phenomena that can be expected to influence industry evolution. They therefore called for complementing traditional strategic groups' analysis with a cognitivebased type of research, 'When attempting to understand the strategic interactions occurring within and among groups of similar firms, the social psychological reality of "the group" must be taken into account' (ibid. 413). Strategic groups analysis is powerful in assessing *ex post* similarities and differences among firms regardless of strategic intent. However, to provide an aid to decision-making, it is necessary to examine managerial perceptions and how they influence strategy formulation. Bogner and Thomas (1993) and Reger and Huff (1993) have also proposed similar arguments.

In two classic studies of the Scottish knitwear industry, Porac, Thomas, and Baden-Fuller (1989) and Porac et al. (1995) examined how the mental models of

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managers in individual firms help to sustain the traditional competitive structure of this industry. The sharing of these mental maps make up the norms or the 'recipes' (following Spender 1989) for doing business. Shared beliefs establish the identity of individual firms and help to create a stable transactional network in which the actions of rivals can be interpreted.

Figure 10.10 and Table 10.5 illustrate the results for the Scottish knitwear industry. The figure is a schematic without dimensions that identifies the main groups. Note that mental maps do not, unlike conventional strategic groups, have conventional strategy dimensions explicitly attached. Thus, the concepts of 'mid-market niche' as opposed to 'mass-market contract' carry with them implications for future strategy and for the interpretation of the strategies of others, but the groups themselves are not uniquely defined by particular specific strategies. Table 10.5 contains an abbreviated narrative summary of the groups' diagnostic self-perceptions. The notion of mid-market firms contains elements of geography (location), size, production specialization, and customer segments. You can think of mental maps of this kind as complex aggregations of multiple strategic dimensions into distinct, addressable types. Thus, mental maps are more realistic but more complex. But they are more intractable in terms of our earlier criteria because they are not sufficiently simple to provide a language for interpretation or a basis for prediction.

By using a cognitive perspective, it is also possible to address the problem of the underlying staticism that characterizes strategic groups' research. In both strategic groups and cognitive communities, top management has some external reference points influencing its decision activities. However, in cognitive research the reference points change because *sense-making* is a continuous process, with a continuous dynamic. In strategic groups, *sense-making* is not a continuous process; management has a clear cognitive structure of industry and competition, and this state remains until changes take place in the industry. However, alternative assumptions of continuous, incremental change can be argued to be equally plausible.

Nevertheless, there are a number of problems with cognitive research (Reger and Huff 1993). The existence and persistence of mental maps might lead individuals to ignore contradictory data (e.g. Prahalad and Bettis 1986). They may not, therefore, reflect evidence from a changing world. Cognitive structures are also based on incomplete knowledge and, according to Schwenk (1984), even the simplest inferences are frequently biased. Weick (1995) also notes that there is little understanding of how cognitive structures develop. The focus of cognitive studies is on attending to cues in the environment, interpreting the meaning of such cues, and then internalizing these interpretations via concrete activities. Meaning is created when cues are linked with already learned or developing cognitive structures (Porac, Thomas, and Baden-Fuller 1989). However, what is left unspecified is 'how the cues got there in the first place and how these particular cues were singled out from an ongoing flow of experience. Also unspecified are how the interpretations and

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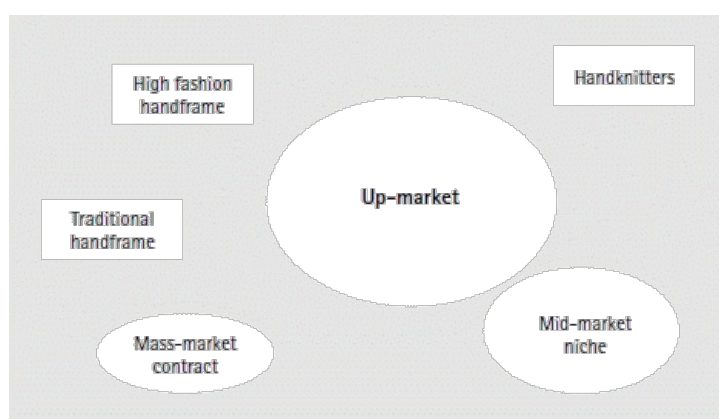


Fig. 10.10 The Scottish knitwear industry

Table 10.5 The Scottish knitwear industry: narrative summary of the cluster groups' diagnostic self-perceptions

Cluster	Verbal label and description
1	'High fashion handframe' firms using hand assembly and linking methods to produce designer knitwear. Sales of around £100,000. Locationally concentrated in Edinburgh.
2	'Handknitters' using hand assembly to produce traditional and designer specialty knitwear. Small, with sales of about £50,000. Concentrated in the Western Isles.
3	'Traditional handframe' firms using linking and hand assembly to produce 'Shetland' type garments. Sales of about £50,000, and concentrated in the Shetland and Orkney Islands off the North coast.

- 4 'Up-market' firms using large-scale fully fashion machines and a variety of assembly methods to produce classic knitwear. Large, with sales averaging £2–3 m with some as large as £20 m. Concentrated in the Borders area around Hawick.
- 5 'Mid-market niche' firms using both fully fashion and cheaper cut and sew technology to produce a variety of styles. Also large, with sales of around £4 m. Concentrated in Ayrshire on the West coast.
- 6 'Mass market contract' firms using mainly cut and sew and cheap overlocking and cup seaming. Medium in size, sales around £1.2 m. Concentrated in Glasgow.

Source: Porac, Thomas, and Baden-Fuller 1989.

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meanings of these cues were then altered and made more explicit and sensible, as a result of "concrete activities" (Weick 1995: 8).

The idea of cognitive communities 'Seems more evolutionary than planned, having developed over several decades in response to problems encountered in the market place' (Porac, Thomas, and Baden-Fuller 1989: 404). There is no doubt that cognitive approaches to research suggest interesting possibilities for strategy researchers interested in the dynamics of firms' strategies, especially for the area related to the processes that underlie changes in strategies. There has been little attention given to the relationship between performance of firms and the dynamics of their strategies, but these issues are at the heart of strategic groups' research and of strategy research (Rumelt, Schendel, and Teece 1991). Furthermore, when the focus of analysis is on the outcome of strategy, i.e. on industrial and business change, it will be essential to complement cognitive analysis with other approaches in order to understand the mechanisms that underpin the dynamics of the industry change.

10.5 Strategic Groups and Population Ecology of Organizations⁶

⁶ See Curto (1998) for an extensive discussion.

Ecological approaches to the study of population of organizations have developed out of the seminal paper by Hannan and Freeman in 1977, 'The Population Ecology of Organizations'. Hannan and Freeman argued the advantages of using population ecology models originating from biology to study and explain the emergence, growth, and decline of populations of organizations.

Within population ecology, the existence of different organizational forms is explained by the existence of different environments (niches). Growth of an organizational species and its stability over time is a function of (a) the quantity of resources that a specific environment can offer, and (b) of competition with other species living in the same environment. The same territory can provide a plurality of niches to a plurality of species that use different resources, but if a second population *migrates* to the same niche and makes use of the same resources, there will be competition among species. The more similar populations are, the more difficult it will be for the same environment to sustain two populations in equilibrium. The tougher competition for scarce resources is, the more likely it will be that the less apt organization will be eliminated.

The existence in the environment of (a) limited resources, (b) competition, and (c) stability explains the phenomena of stability, of homogeneity within species, and

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of isomorphism (i.e. the existence of an ideal match between the niche and an organizational form). Isomorphism can result either because non-optimal forms are selected out of a community of organizations or because organizational decision-makers learn optimal decisions and adjust organizational behaviour accordingly. Although it is recognized that a selective view must be complemented with an adaptive one, population ecology focuses exclusively on selection processes. This is justified by the existence of *structural inertia* that constrains alternatives available to firms. The implications are that if radical changes occur in the environment, organizations will tend to be relatively inert to environmental changes, and therefore will be selected out. Inertial pressure is due to both internal structural arrangements and environmental constraints.

As the focus of population ecologists is on the dynamics of populations of organizations, performance is also an important issue. However, while performance had traditionally been measured in management research with financial ratios, population ecologists introduced different measures of performance, typically rates of deaths and survival of organizations over time. Consequently, the focus of empirical research is on longitudinal analysis.

The attention being on populations of firms with similar characteristics in relation to a number of criteria and on the performance of populations over time within a certain environment, it is not surprising that there have been studies proposing population ecology of organizations as a theoretical framework for strategic groups research. Two researchers have analysed strategic groups from a population ecology perspective: Boeker (1991) and Carroll and Swaminathan (1992). Their idea was to look at strategic groups as *species* and to

analyse their dynamics within the same competitive environment.

Carroll and Swaminathan (1992) argue that the absence of a strong relationship between strategy and performance may be due to two methodological aspects: (a) how strategic groups are identified and (b) how performance is measured. In their view groups should be identified on the basis of criteria relating to organizational form rather than on the basis of criteria that attempt to identify the strategies of firms, as the latter are vague and ambiguous, and therefore open to wide interpretation. By organizational form, Carroll and Swaminathan mean 'much more than the formal structure of the organization—it includes all factors that define a population's niche, including especially environmental factors' (p. 68). Interestingly, Boeker (1991) and Carroll and Swaminathan (1992) use the same industry (the US brewing industry) for their analysis but use different criteria to identify strategic groups and therefore cluster groups differently. Boeker (1991) identifies three groups of brewers: *national firms*, *regional firms*, and *local firms*. Carroll and Swaminathan (1992) also identify three groups, but different ones: *mass producers*, *microbreweries*, and *brewpubs*. Thus, it is not obvious that using a population ecology approach to study strategic groups provides unequivocal results.

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At a theoretical level, there are interesting similarities and differences between the theory of strategic groups and organizational ecology. Researchers of both approaches argue the existence of mechanisms inhibiting firms from changing their strategy (*mobility barriers* and *structural inertia*) and in both approaches the focus is on analysis of groups (*strategic groups and environments*).

Similarly to strategic groups theory, population ecology is deterministic in its characteristics. However, the determinants are opposites in the two theories. In strategic groups, performance is determined by strategy. In population ecology, the environment (the group) determines the fortunes of businesses. Hannan and Freeman do recognize that adaptive and selective views ought to be seen as complementary rather than alternative. However, the whole theory of population ecology and models deriving from it are based on the fundamental assumption that it is the environment that optimizes. This is similar in style and approach to economists who argue that the firm does not matter.

Beyond the methodological problems of how to identify organizational species, the emphasis on the role of the environment creates notable difficulties for using population ecology for strategic groups research. Furthermore, the deterministic nature of population ecology, with its focus on the environment, means that little attention is paid to the autonomous nature of industrial and business change over time. Analysts may find this approach useful in assessing the rate and direction of change in an environment of firms, but firm strategists will find little to help them formulate strategy in response to changes in the environment.

10.6 Conclusion

A simple and basic question has occupied the attention of researchers and practitioners for as long as the strategy of businesses has been discussed—'with whom, and how, do firms compete?' (Thomas, Pollock, and Gorman 1987). Different approaches to this question have been based on alternative perspectives based on the unit of analysis. The concept of industry has been too 'coarse-grained' to allow for useful generalizations. The introduction of industry structure analysis provided a framework for analysis and a language for discussion. It provided a basis for categorizing types of competition and for describing the dimensions of firm strategy. But it did not seek to say that industry structure determines strategy or performance. Nor is it sufficient to say that all firms are unique and that competition is therefore of minor concern. To answer the question we need a level of aggregation more fine-grained than industry analysis but at a level of aggregation

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commonly greater than the firm. The concept of strategic groups provides a level of aggregation between the firm and the industry and permits multidimensional analyses of patterns of competition and firm-to-firm rivalry.

This chapter has summarized the intellectual antecedents and theoretical underpinnings of the concept of strategic groups (Section 10.1). It has summarized the implications for the analysis of competition and for our understanding of the relative performance of firms (Section 10.2). Notions of strategic mapping and the way in which strategic group analyses can be conducted were shown in Section 10.3. Also in Section 10.3 we portrayed a selected number of studies to illustrate the potential power of this form of analysis. In Section 10.4 we extended the idea of maps and groups to include mental maps and the whole idea of management cognition. Finally, in Section 10.5 we drew a further extension towards the population ecology of organizations. By borrowing concepts of organizational species and natural selection from biology, we can see some interesting parallels to and complementarities with essentially economic approaches like strategic groups.

Let us conclude with a few general observations.

1. There is no one 'best' strategy for a firm. Firms can profitably follow different strategies in the same industry. The idea of strategic groups provides evidence for the existence of multiple 'good' strategies.
2. The similarities between firms are captured within group structures and are evidenced by the differential nature of mobility barriers between groups. The existence of these barriers enables different strategies to be sustained over time.
3. Strategic groups analysis has not provided much ammunition or evidence for the analysis of differences between firms in the same group. In some important respects firms are still different, even unique. The differences might rest in the complex detail of strategy, particularly where strategic differences rest on complex interaction between elements of the strategy. Differences also occur in the implementation and execution of strategy. In other words, strategy is not everything. Nor are strategic groups everything relating to strategy.
4. Strategy is rooted in the resources and capabilities that have been developed over a long period of time. Strategic groups analysis can provide a historical framework for strategy analysis and can portray competitive dynamics and industry evolution.
5. The ability to capture strategy dynamics is limited by the essentially static nature of economic analysis. The economic approach is to compare different stable periods and assess changes between them. However, much of strategic thinking is continuous and incremental. The counter-argument is that strategic outcomes are influenced by economic possibilities and that this limits the opportunity for profitable strategic innovations. This debate between continuity and step-change will continue.

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6. The development of cognitive approaches to strategic thinking provides a potential linkage between strategic intent and strategic outcomes. The juxtaposition of cognitive and economic approaches might reveal more about the nature of strategy innovations and their successful adoption, and strategy as a process over time.

References

Bain, J. S. (1956). *Barriers to New Competition*. Cambridge, Mass.:Harvard University Press.

—(1968). *Industrial Organization*. New York:Wiley.

Boeker, W (1991). 'Organizational Strategy: An Ecological Perspective'. *Academy of Management Journal* , 34/3: 613–35. [Link](#)

Bogner, W. C., and Thomas, H. (1993), 'The Role of Competitive Groups in Strategy Formulation: A Dynamic Integration of two Competing Models', *Journal of Management Studies* , 30, 51–67. [Link](#)

— —(1996). *Drugs to Market: Creating Value and Advantage in the Pharmaceuticals Industry* . Oxford:Pergamon Press.

— —and McGee, J (1996). 'A Longitudinal Study of the Competitive Positions and Entry Paths of European Firms in the U.S. Pharmaceutical Market'. *Strategic Management Journal* , 17/2: 85–107. [Link](#)

Carroll, G. R., and Swaminathan, A. (1992). 'The Organizational Ecology of Strategic Groups in the American Brewing Industry from 1975 to 1990'. *Industrial and Corporate Change* , 1: 65–97. [Link](#) [OUP Resource](#)

Caves, R., and Porter, M. E. (1977). "From Entry Barriers to Mobility Barriers" *Quarterly Journal of Economics* 91: 241–61. [Link](#)

Curto, F. (1998). 'Strategic Groups, Industry Structure and Firms' Strategies: Theory and Evidence from the UK Grocery Retailing Industry'. Ph.D. dissertation, University of Warwick.

Fiegenbaum, A., and Thomas, H. (1990). "Strategic Groups and Performance: The U.S. Insurance Industry 1980–84" *Strategic Management Journal* 11: 197–215. [Link](#)

— Tang, M. J., and Thomas, H. (1990). "Strategic Time Periods and Strategic Group Research: Concepts and an Empirical Example" *Journal of Management Studies* 27: 133–48. [Link](#)

Ghazanfar, A. (1984). 'An Analysis of Competition in the Reprographics Industry in the United Kingdom 1980–1980'. Ph.D. dissertation, University of London.

—McGee, J., and Thomas, H. (1987). 'The Impact of Technological Change on Industry Structure and Corporate Strategy: The Case of the Reprographics Industry in the United Kingdom', in A. Pettigrew (ed.), *The Management of Strategic Change*. Oxford: Basil Blackwell, 166–91.

Hannan, M. T., and Freeman, J. (1977). "The Population Ecology of Organizations" *American Journal of Sociology* 82: 929–64. [Link](#)

Hatten, K. J. (1974). 'Strategic Models in the Brewing Industry'. Ph.D. dissertation, Purdue University.

Hunt, M. (1972). 'Competition in the Major Home Appliance Industry, 1960–70'. Ph.D. dissertation, Harvard University.

end p.298

Johnson, G., and Scholes, K. (1999). *Exploring Corporate Strategy*. Hemel Hempstead:Prentice-Hall.

Ketchen, D. J., and Shook, C. L. (1996). "The Application of Cluster Analysis in Strategic Management Research: An Analysis and Critique" *Strategic Management Journal* 17: 441–58. [Link](#)

Lippman, S. A., and Rumelt, R. P. (1982). 'Uncertain Instability: An Analysis of Interfirm Differences in Efficiency under Competition'. *Bell Journal of Economics*, 13/2: 418–38. [Link](#)

McGee, J., and Segal-Horn, S. (1990). 'Strategic Space and Industry Dynamics: The Implications for International Marketing Strategy'. *Journal of Marketing Management*, 6/3:175–93.

———. (1991). 'Will There be a European Food Processing Industry?', in S. Young and J. Hamill (eds.), *Europe and the Multinationals*. Aldershot: Edward Elgar Publishing.

——— and Thomas, H. (1986). 'Strategic Groups: Theory, Research & Taxonomy'. *Strategic Management Journal*, 7/2: 141–60. [Link](#)

——— and Pruett, M. (1995). 'Strategic Groups, the Analysis of Market Structure and Industry Dynamics'. *British Journal of Management*, 6/Special Issue: 1–14. [Link](#)

Mason, E. S. (1939). "Price and Production Policies of Large Scale Enterprise" *American Economic Review* 29: 61–74.

Newman, H. H. (1973). 'Strategic Groups and the Structure-Performance Relationship: A Study with Respect to the Chemical Process Industries'. Ph.D. dissertation, Harvard University.

Porac, J. E., Thomas, H., and Baden-Fuller, C. (1989). "Competitive Groups as Cognitive Communities: The Case of Scottish Knitwear Manufacturers" *Journal of Management Studies* 26: 397–416. [Link](#)

——— Wilson, F., Paton, D., and Kanfer, A. (1995). "Rivalry and the Industry Model of Scottish Knitwear Producers" *Administrative Science Quarterly* 40: 203–27. [Link](#)

Porter, M. E. (1973). 'Retailer Power, Manufacturing Strategy and Performance in Consumer Goods Industries'. Ph.D. dissertation, Harvard University.

——— (1979). "The Structure within Industries and Company Performance" *Review of Economics and Statistics* 61, May: 214–27. [Link](#)

——— (1980). *Competitive Strategy*. New York:Free Press.

——— (1985). *Competitive Advantage*. New York:Free Press.

Prahalad, C. K., and Bettis, R. P. (1986). "The Dominant Logic: A New Link between Diversity and Strategy" *Strategic Management Journal* 7: 485–501.

Reger, R. K., and Huff, A. S. (1993). "Strategic Groups: A Cognitive Perspective" *Strategic Management Journal* 14: 103–24. [Link](#)

Rumelt, R. P. (1984). 'Towards a Strategic Theory of the Firm', in R. B. Lamb (ed.), *Competitive Strategic Management*. Englewood Cliffs, NJ: Prentice-Hall, 566–70.

——— Schendel, D. E., and Teece, D. J. (1991). *Fundamental Issues in Strategy: A Research Agenda*. Boston:Harvard Business School Press.

Scherer, F. M. (1980). *Industrial Market Structure and Economic Performance*. Chicago:Rand-McNally.

Schwenk, C. R. (1984). "Cognitive Simplification Processes in Strategic Decision-Making" *Strategic Management Journal* 5: 111–28. [Link](#)

Sjostrom, C. (1995). 'Corporate Effects on Industry Competition: A Strategic Groups Analysis'. D.Phil, dissertation, University of Oxford.

end p.299

Spender, J. C. (1989). *Industry Recipes: An Enquiry into the Nature and Sources of Managerial Judgement*. New York:Blackwell.

Steffens, J. (1987). 'Entry Behaviour and Competition in the Evolution of the United States Personal Computer Industry'. Ph.D. dissertation, University of London.

—(1994). *Newgames: Strategic Competition in the PC Revolution*. Oxford:Pergamon Press.

Stubbart, C. I., and Ramaprasad, A. (1990). 'Comments on the Empirical Articles and Recommendations for Future Research', in A. S. Huff (ed.), *Mapping Strategic Thought*. Chichester: John Wiley & Sons.

Teece, D. (ed.) (1988). *The Competitive Challenge*. Cambridge, Mass.: Ballinger.

Thomas, H., and Carroll, C. (1994). 'Theoretical and Empirical Links between Strategic Groups, Cognitive Communities and Networks of Interacting Firms', in H. Daems and H. Thomas (eds.), *Strategic Groups, Strategic Moves and Performance*. Oxford: Pergamon Press, 7–30.

— Pollock, T., and Gorman, P. (1987). 'Strategic Groups, Core Competences, and Global Competition: Reflections on the Puzzle of Competitive Strategy'. Working paper, University of Illinois, 3 Nov.

Weick, K. E. (1995). *Sensemaking in Organizations*. London:Sage Publications.

Case Study

The Consulting Industry in the New World of Information ⁷

⁷ This case study is extracted from an MBA project by Simon Kitchman, 'connections in the Wireless World', Warwick Business School, Sept. 2000.

Does the Internet change everything? The impact of the Internet on consulting has been widely reported (Brown 1999; Colvin 2000; Moran 2000; Stepanek 2000). The main thrust of these reports is that the old guard 'just doesn't get it', leading to the influx of a new breed of firms with a different consulting model for an e-services market estimated to grow from \$12.9 billion in 1999 to \$80 billion in 2003 (Stepanek 2000). There are a number of important differences from the traditional approach and assumptions in the consulting industry.

First, e-business demands consulting at much faster speed. First-mover advantage and high levels of uncertainty make it more important for companies to iterate, learn, and reiterate: 'There is no time for separate advice, the situation demands an approach of do, learn and adjust' (*Financial Times*, July 2000). This has led to a typical engagement of 90–180 days, compared to the many months or even years spent on enterprise resource planning (ERP), the mainstay of consulting revenues in the 1990s (Stepanek 2000). Fees are more likely to be on a fixed project basis than the time-plus-costs model, which encourages overruns. The greater number of projects carried out in a year also accelerates learning.

Secondly, technology and strategy are now completely intertwined. Added to the need for speed, this demands an integrated approach that combines business strategy, creative

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design, and technological implementation within the same cross-functional team. Teams tend to be smaller, comprising 12–18 consultants rather than the small armies of ERP projects (Sammer 2000).

Thirdly, the consultant–client relationship is changing. E-business firms are often much more intimately involved with the organizations they advise. Equity in exchange for consulting is a common practice and e-firms can take on the entire operational requirements or incubation of a dot.com start-up. This kind of 'total immersion' is much closer to the behaviour of venture capitalists and represents a significant departure from the detached independence of the traditionalists (Colvin 2000).

Fourthly, given that talent is a key resource, e-firms have succeeded in attracting the brightest and the best from business schools (Hamel 1999: 83). This can be explained by differences in ownership structure and culture. Most e-firms are publicly quoted and offer stock options to all staff. This is in sharp contrast to structures in which up-or-out rules apply and only the partners at the apex of the organization can hope to share in the greatest rewards—Milgrom and Roberts (1992) offer an explanation based on agency theory for this apparent disincentive. The culture of e-firms is much more relaxed, with no strict dress code, less travel, and 'sexy' working environments (Sweeney 2000). They also have a compelling sense of vision, with Sapient, for example, claiming it is 'changing the way *the world works*' (Sapient 2000). The combined effect of all these can be seen in staff attrition, with Scient claiming a rate of 11 per cent versus an industry average of 25 per cent (Scient 2000). The skills shortage that exists in e-business is even more marked in the wireless arena where very few people have any experience of the complex blend of skills required.

How successful has this new breed of e-firms been? They have enjoyed triple digit growth (Stepanek 2000), with approximately 80 per cent of their business coming from Fortune 1000 companies, the hunting ground of traditional consultants. According to a Forrester survey, 76 per cent of companies do not look to their usual suppliers for advice on e-business, although the size of projects is typically much smaller at \$1–3 million (Sweeney 2000). E-firms may also be guilty of claiming more than they actually deliver: even the top performers in a survey of FTSE 500 clients earn unimpressive scores. No single provider offers an end-to-end service and there is a perceived need for firms to help structure complementary offerings (Forrester Research 2000).

Response of the Incumbents

Almost every firm has either repositioned itself as Internet-savvy or set up a discrete e-business practice. Andersen Consulting claims that 30 to 40 per cent of its projects now have e-commerce content (Brown 1999), and IBM's e-business services were worth \$3 billion last year (IBM 2000b). Andersen has created its own venture capital unit and McKinsey is taking a stake in some of its own clients for the first time. McKinsey is also adopting 'parallel processing', with strategic framing and implementation happening concurrently, and less data-driven analysis (Sweeney 2000). Andersen, McKinsey, and PricewaterhouseCoopers (PwC) are exploring the use of internal talent exchanges in an attempt to retain staff by giving them greater control over their own careers. Many firms are adopting new compensation models with greater risk-based elements, such as PwC's share unit plan (Sammer 2000). Andersen has almost doubled its number of partners (Kennedy Information Research Group). All of this suggests that the incumbents recognize the need to remould themselves,

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10 Strategic Groups: Theory and Practice

if they are to provide picks and shovels for the Internet Gold Rush. However, to replicate the capabilities of the upstarts, they need to realign themselves on many dimensions, not just one or two. Of course, that is much harder with a large organization, with its embedded values and structure, than it is when starting from scratch.

Enter the Vendors

The threat to consulting incumbents is not confined to the e-firms. Many hardware and software vendors are attempting to move up the food chain and emulate the success of IBM Global Services: 'All equipment vendors are moving towards a solution-selling focus that helps customers harness value from products more quickly' (Arnold et al. 1998).

In the wireless space, almost every vendor claims to offer consulting as part of its end-to-end service. Some, like Ericsson Business Consulting created in January 1999 (Baladi (1999), are quite explicit about their objectives: 'Ericsson is undergoing a fundamental shift from being a technology supplier to also becoming a leading consultancy' (www.ericsson.com, Aug. 2000). There are several motivations for these moves. In the new economy, information is the most valuable element and consulting offers higher margins than selling boxes. Vendors also recognize that consultants wield considerable influence over the purchasing decision for hardware and software. By moving into that space, they can gain significant pull-through revenues. For example, IBM operates on the basis that for every \$1 in consulting fees, \$3 will be generated for other services and products (IBM 2000a).

Scale and Scope, Mergers and Acquisitions

Although the emergence of new competition is reshaping the consulting industry, its effects are only beginning to be felt on the incumbent oligopoly shown in Table 10.6. Taking the total value of the global consulting market as \$62 billion (O'Shea 1997), the ten-firm concentration ratio is 78 per cent and the five-firm ratio is 51 per cent. As Segal-Horn (1993) predicted, economies of scale and scope mean that the largest multinational firms enjoy a huge concentration of market power. Despite their rapid organic growth, the e-firms are still minnows by comparison—Sapient, one of the largest, has 2,800 employees and revenues of only \$319 million.

Consolidation seems set to continue with a recent spate of mergers, acquisitions, alliances, and joint ventures. Cap Gemini has acquired Ernst & Young for \$5 billion (echoing the purchase of AT Kearney by EDS in 1995). Andersen and Microsoft have combined to form Avenue, which plans to have 5,000 consultants helping to sell Microsoft-based Internet services (Colvin 2000). From the vendor side, Hewlett-Packard has announced plans to buy PwC for £14 billion (*Sunday Times*, Sept. 2000). Cisco has invested \$835 million for a 5 per cent stake in a joint venture with Cap Gemini, and taken a 20 per cent stake in KPMG. This is indicative of its strategy to partner with services firms in ecosystems, rather than build up an internal consulting practice (*Consulting Magazine*, Mar. 2000).

A separate driver at work is regulatory pressure by the SEC in the United States for accounting firms to divest their consulting arms because of the potential for conflict of interest. This lies behind KPMG Consulting's planned partial flotation at \$2.5 billion (*Consulting*

Magazine, Sept. 2000).

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Table 10.6 Consulting firms by revenue

Firm	Revenue (\$m)	Consultants	\$Revenue per consultant
IBM (est)	8,043		65,000123,738
Andersen	7,514		53,248141,113
PwC	7,170		40,560176,775
Deloitte	5,050		28,625176,419
Ernst & Young	4,050		17,348233,456
CSC	3,640		22,000165,455
KPMG	3,500		17,000205,882
Cap Gemini	3,161		25,337124,758
McKinsey	2,900		5,670511,464
Mercer	1,950		14,100138,298
Arthur Andersen	1,400		9,810142,712

Source: Colvin 2000.

The 'Telco' View

The attitude of telcos to vendors maybe critical for the relationship between consulting and the wireless world. As we have already noted, vendors favour deep relationships across global markets with one or two other key vendors, with perhaps occasional strategic input from a specialist. Other suppliers are regarded as point solution providers, to whom the primary vendor may decide to subcontract some elements (IBM 2000a). If telcos, rather than brands, portals, or enterprises, are the key players in this space, these conservative attitudes will make it very difficult for consulting firms to gain a foothold without the aid of the telco equipment vendors.

Sense and Respond?

To enjoy economies of scale and scope, consulting firms leverage their knowledge and offer services with minimum customization to their clients. This underpins their business model, with large numbers of young inexperienced consultants charged at high hourly rates feeding the high income of a few senior consultants. At worst, this can result in projects where little more than the name is changed from one client to the next (O'Shea 1997). This model may prove inadequate in an environment characterized by high levels of instability. The challenge will be to develop a more dynamic approach that enables clients to feel they are getting a service tailored to their individual needs.

Strategic Groups

One could group consulting firms based on any number of factors such as size, ownership structure, market segmentation, and so on. Figure 10.11 shows a grouping along two dimensions: product/service focus and speed of response. Focus means the degree of

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specialization in a particular area versus the offering of an integrated, end-to-end service to a wide variety of clients from different industries. Responsiveness means both how quickly a firm can move from analysis to execution (this could be quantified by average project length), and how swiftly it has adapted to environmental change. Clearly, it would take a variety of metrics to assess each dimension and one would then have to weight each one. Therefore, the assessment in Figure 10.11 is based on qualitative observations and subjective judgement. Naturally, the groups described below do not encompass all consulting firms and undoubtedly there are some hybrids, which have the characteristics of more than one group.

Big 5

This refers to the consulting arm of large accounting firms, Ernst & Young, Pricewaterhouse Coopers, KPMG, Arthur Andersen, and Deloitte Touche. Their strengths lie in large-scale projects, long-term relationships, and deep knowledge of vertical industries. Their entry point to consulting came with the introduction of information technology to accounting departments. Whilst this bias remains today, they offer a wide range of services including business strategy, enterprise resource planning, IT consulting and outsourcing, and change and knowledge management. Their natural inclination is to extend assignments to as many layers over as long a time frame as possible. Combined with their size, this results in slow responsiveness.

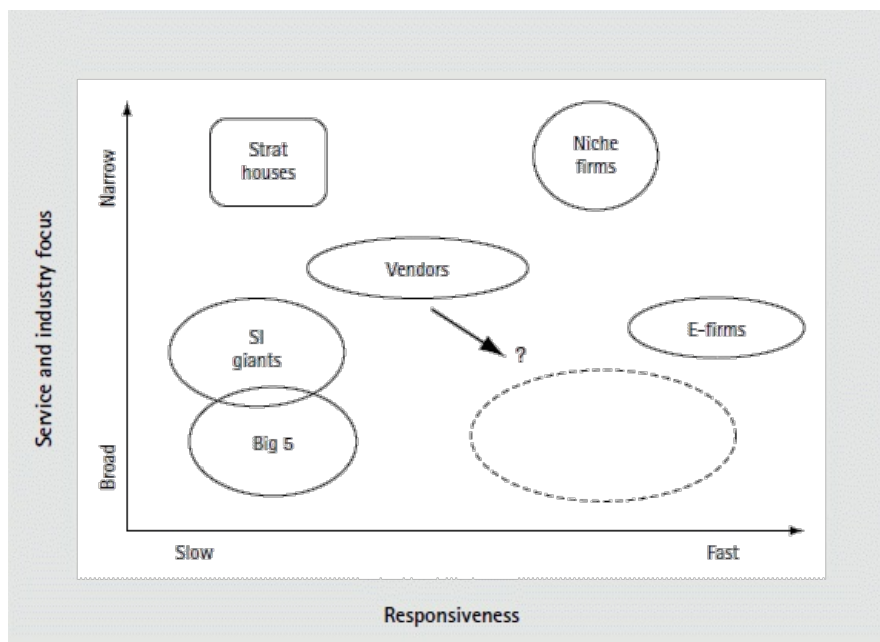


Fig. 10.11 Strategic groups in the consulting industry

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SI Giants

Systems Integration is dominated by a few huge organizations: IBM, Andersen Consulting, CSC, EDS, and Cap Gemini. Between them, they control most of the world's important databases. Whilst they often compete with the Big 5, they are typically selected for their expertise in complex, large-scale IT assignments rather than business strategy. Their industry experience is broad, though perhaps not as deep as that of the Big 5. Recently, Andersen and IBM have added services to create an integrated e-business offering. Size and history slow their response speeds.

Vendors

As we have already seen, hardware and software vendors are entering the consulting market. In the wireless world, key players include Nokia, Ericsson, Hewlett-Packard, Oracle, Cisco, Nortel, Lucent, Siemens, and Unisys. In many ways, they are attempting to emulate IBM's successful reinvention of itself as a services provider. Their strengths are their technological understanding and monopoly on market access. Their weaknesses are the lack of independent consulting experience in many industries and across service lines. They are not a homogenous group in terms of speed of response: whilst most are regarded as slow, Cisco is seen as one of the most dynamic companies in the fast-moving Internet space.

Strat Houses

These include McKinsey, Bain, Boston Consulting Group, Booz Allen Hamilton, Mercer, Monitor, and numerous others. Typically organized as partnerships, they command fees of up to \$500,000 per consultant per annum (four times that for the outsourcing of computer services). Weak on implementation, they provide an intellectual approach rooted in the design, planning, and positioning schools of strategy. Their greatest asset is probably their access to clients at the CEO level via the old-boy network. Whilst covering all industries, they focus exclusively on strategy and do not offer end-to-end integration. The pursuit of analytical rigour is often at the expense of speed: months of work can result in little more than a thick report.

Niche Firms

These firms are even more tightly focused than the Strat Houses. There are a number that specialize in strategy and research in the digital arena, including Analysys, Decipher, Informed Sources, Ovum, and Spectrum. They offer deep knowledge of the telco, media, and Internet industries, often advising regulators and government on strategic or business modelling issues. Their small size, independence, and narrow focus make them nimble and able to punch beyond their weight in terms of influence.

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E-firms

This group is highly fragmented, with many players including Viant, Scient, Sapient, Proxicom, Razorfish, Agency.com, Organic, IXL, marchFIRST, Digitas, and Cambridge Technology Partners. Although coming from diverse backgrounds (web design, advertising, systems integration, direct marketing, and pure plays), all have moved to offer an end-to-end integrated service focused on the Internet. The enthusiasm of investors and favourable demand conditions have enabled these publicly traded companies to build global scale quickly, often through multiple acquisitions. With strong cultures and a sophisticated understanding of knowledge management, fast response seems embedded in e-firms. However, as well as coping with their own rapid growth, they now face a number of other challenges. The bursting of the e-bubble has resulted in plummeting stock prices (Viant's market capitalization has fallen from \$2 billion to \$236 million during six months in 2000, for instance), which will restrict further expansion. A slowing in demand growth has made it imperative that they begin to differentiate from one another. The maturing of e-business means there is a growing need for vertical industry knowledge.

White Spaces and Other Opportunities

Figure 10.11 throws an interesting light on current industry moves. Cap Gemini's acquisition of Ernst & Young appears to be designed to broaden the focus of the Vendors and improve channel access. The partnership between IBM and the Strategy House, Mercer, increases the ability of both parties to claim an end-to-end service. IBM's merger of its consulting and systems integration businesses into Business Innovation Services formalizes the breadth of its offering. All of these moves ignore the dimension of speed of response.

One of the benefits of strategic group analysis is that it can highlight white spaces—areas not currently occupied by any group—that represent opportunities to extract future rents (McGee and Thomas 1992). Thus, we can see a large space in the bottom right, 'broad and fast' quadrant. While this would represent the optimum strategy for the wireless world, it requires competencies that in some ways are juxtaposed—these constitute mobility barriers. What kind of organization could offer complete breadth at the same time as being agile enough to respond quickly to environmental changes?

The Strat Houses and Niche Firms are pursuing narrow differentiation strategies and seem unlikely to want to compete in this space. Niche Firms maybe targets for those who want to buy some speed, although it is doubtful whether the qualities that make them successful can be preserved through the acquisition process. All but the most prestigious Strat Houses may find their position increasingly difficult unless they can provide a faster response. One solution could be to break firms into 'Virtual niche firms', harnessing their reputational assets without the dead weight of organizational inertia.

Although the E-firms are currently best positioned to move into this space, to do so would require major investments in new capabilities. This will be hard to finance given current market conditions in 2000. Nevertheless, one might expect a few players such as Sapient and Scient to attempt this. The rest appear vulnerable to consolidation.

The Big 5 and SI Giants will have to struggle against legacy structures and thinking in order to reposition themselves. Some members of the Big 5 seem to lack any clear sense of direction.

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10 Strategic Groups: Theory and Practice

The Vendors are a mixed bunch, but their lack of tenure as consultants may be an advantage: learning new skills can be easier than unlearning old ones. Cisco has proved itself adept at strategic acquisition and choreographing its entire business web in delivering value. Although its origins are in network equipment, Cisco describes its value proposition as 'advice and the intellectual property around it' (Tapscott, Ticoll, and Lowy 2000). This could be the firm most capable of success in this space.

References

Arnold, S., Reed, G. A., and Roche, P. J. (1999). 'Wireless, not Profitless'. *McKinsey Quarterly*, 4, 112.

Baladi, P. (1999). 'Knowledge and Competence Management: Ericsson Business Consulting'. *Business Strategy Review*, 10/4 (Winter): 20–8. [Link](#)

Brown, E. (1999). 'The E-Consultants'. *Fortune*, 12 Apr.

Colvin, G. (2000). 'Old Consultants Never Die: They Just Go E'. *Fortune*, 12 June.

Forrester Research (2000). 'Scoring Europe's E-business Help'. Feb.

Hamel, G. (1999). 'Bringing Silicon Valley Inside'. *Harvard Business Review*, Sept.–Oct: 70–84.

IBM (2000a). 'Cheryl Altany Wireless Consulting Unit BIS North'.

——(2000b). 'IBM.com Annual Report 1999'.

Kennedy Information Research Group (2000). 'E-services Report'. Apr.

McGee, J., and Thomas, H. (1992). 'Strategic Groups and Intra-Industry Competition', in D. E. Hussey (ed.), *International Review of Strategic Management*, Vol. 3, 77–98.

Milgrom, P., and Roberts, J. (1992). *Economics, Organization and Management*. Englewood Cliffs, NJ:Prentice-Hall International.

Moran, N. (2000). 'Impact on Consultancies'. *Financial Times*, 5 July.

O'Shea, J. (1997). *Dangerous Company: The Consulting Powerhouses and the Businesses They Save*. London: Nicholas Brealey.

Sammer, J. (2000). 'Paying for Performance'. *Consulting Magazine*, May.

Sapient (2000). 'Architects for the New Economy', www.sapient.com, Aug.

Scient (2000). 'Annual Report'.

Segal-Horn, S. (1993). 'The Internationalisation of Service Firms', in *Advances in Strategic Management*. Greenwich, Conn.: JAI Press, 31–55.

Stepanek, M. (2000). 'Clash of E-Consultants'. *Business Week*, 19 June.

Sweeney, J. (2000). 'McKinsey at the Crossroads'. *Consulting Magazine*, Jan.

Tapscott, D., Ticoll, D., and Lowy, A. (2000). *Digital Capital: Harnessing the Power of Business Webs*. London: Nicholas Brealey.

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11 Scenario Thinking and Strategic Modelling

R. G. Coyle

THE aim of this chapter is to introduce the art and practice of thinking intelligently about the unknowable future. It is about forecasting what *might* happen in the future, but not about predicting what *will* happen. After explaining why forecasting is important in strategy we will survey different approaches to that task. Some of these will be explained only in outline and most attention will be given to the use of *scenario thinking* to generate more than one view of the future. Scenarios drive choices so the chapter also includes some tools and techniques for evaluating strategic choices against the future's anticipated possibilities.

The chapter closes with some suggestions for further research and a summary of 'the art of the long view'.

11.1 Thinking about the Future

Suppose oneself to be, say, ten years hence and saying, 'If only I had known ten years ago that X was going to happen, I would have done A. As it was, I assumed that Y

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would come about and so I did B which turned out badly because it wasn't suitable when X happened.' Even worse, that person might have to say, 'Since I didn't even think about what *could* happen, I just went ahead and did B.'

To emphasize the point, van der Heijden (1996) shows that the oil industry took two years to recognize that there had been an oil crisis in 1973 and then five or six years to cut capacity, though closing a refinery takes nowhere near eight years. Losses ran into billions. The reason was simply that the industry as a whole was so used to steady growth that the possibility of a decline in demand was not conceived of. Shell, however, claim to have avoided the worst effects through their use of scenario thinking to sensitize their management to the future's possibilities. The reader should now think of some examples in which his or her firm, government agency, or non-profit organization got into difficulties because of failure to think about the possibility of change.

Only racing tipsters and fortune tellers are prepared to say what *will* happen and one might be unwise to bet the firm by basing strategic choices on such predictions. However, a reasonable person might say, in the present, 'I can see plausible reasons why X or Y *might* happen in the future. A would be good with X, and B with Y, but I am not happy about the risk of gambling on one choice. It would be sensible to try to find some alternative, C, which might not be ideal but will still be reasonably good if either X or Y happens. C would be *robust* against the future's uncertainties. Even if there is no C and I have to choose A or B, then at least I'll have assessed the business risks I might be running. *I'll be prepared for change.*'

Figure 11.1 shows several methods for dealing with change. The diagram is read from the bottom up but the fact that something is higher up the page does not mean that it is more important or useful; the order is for ease of explanation. The diagram should be referred to regularly as it is effectively a map for this chapter and its labels are headings for several subsequent sections.

The passive approach hopes that change will not happen or, if it does, that it will be small enough to ignore. Failing that, reliance is placed on being able to cope. This 'do nothing' strategy is sometimes perfectly acceptable as not all change is dramatic and not everything can be foreseen. Perhaps the first step in 'futures studies' is assessing whether the effort is necessary or possible. A firm of accountants, for example, knows that tax legislation changes frequently and that the precise changes cannot be predicted, but the firm can rely on its expertise to continue to advise its clients in the changed environment.

Sharing risk as a means of dealing with change is the basis of the insurance industry. One assures against certainties, such as death, and insures against possibilities, such as theft of one's car or loss of a ship at sea. However, the Lloyds insurance market was nearly destroyed by failing to anticipate that there might be a series of massive claims.

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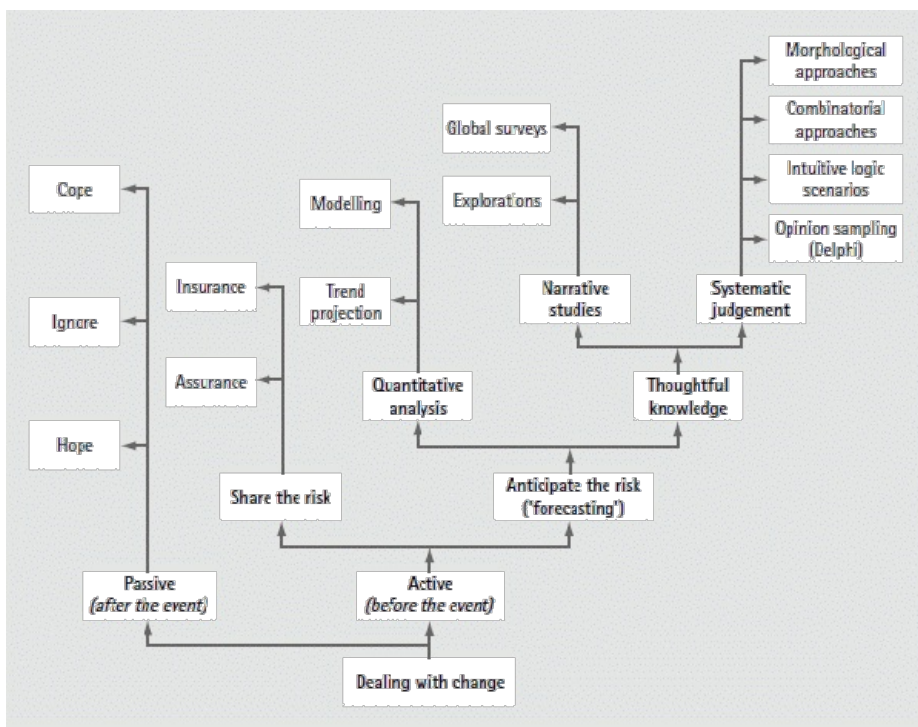


Fig. 11.1 Futures methodologies

11.2 Projection, Modelling, and Delphi

The first method of quantitative analysis uses data from the past to make projections of the future. For example, the UK Treasury, in common with most other finance ministries, uses a computer to process huge quantities of data on aspects of the economy over many previous years in order to make projections of, for instance, inflation for the next few years. This is *econometric modelling*; a branch of mathematics in which trends are 'fitted' to historical data and then projected into the future.

One might have expected a method strictly based on factual data to project rather well but the track record of econometric projections is poor. The Treasury forecast

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for inflation made at the end of 1997, when inflation was 2.6%, projected a 90% chance that it would be between 1% and 4.5% by the middle of 2000. The Government's target was 2.5% but actual inflation was 3.5% in May 1999, about at the top of the range of 90% chances for that time, and within only fifteen months of the projection being made.

In assessing a futures methodology, it is essential to grasp what basic assumption it makes as that will govern how far ahead it can forecast. The basic assumption of econometric forecasting is that past trends continue into the future so its limit of credibility is *as far as recent trends can be pushed into the future*. Its track record suggests that that is not very far.

A second category of quantitative futures methods is a collection of modelling approaches. One is *system dynamics* (Coyle 1996); a method of modelling and studying the interactions of the causal processes in a system as they play themselves out over time. The best-known example in futures studies is *The Limits To Growth* (Meadows et al. 1972). That represented the world's social and economic behaviour in terms of a set of presumed key variables, such as population, pollution, capital, natural resources, and quality of life. Relationships between these were postulated on the basis of whatever evidence could be found so that, for example, growth of capital was regarded as tending to increase pollution which, in turn, was taken to reduce human life span, leading eventually to a drop in population. The model reflected fairly closely the growth of population from 1900 to 1970, when the work was done, but as the simulated future unfolds, population continues to increase until, in about 2050, it suffers a severe collapse.

Clearly, any such model has considerable uncertainties in its data and causal processes, but the uncertainties are not necessarily vital, as it is not intended to predict precise events, just broad patterns of behaviour. For example, even when natural resources were imagined to be unlimited, the population collapse still occurred. However, with the simulated policy change of a large reduction in pollution per unit of capital, the population collapse was deferred and was much less severe.

That particular model attracted much criticism, for many reasons, and world modelling is no longer much in vogue. From our point of view, the main issue is the inherent assumption of that type of approach which is that present causal processes do not change in the future so its limit of credibility is *as long as current causal processes can be expected to last*. The world's behaviour was simulated for 200 years which seems, perhaps, to be stretching credibility too far. System dynamics is, however, very widely used for modelling corporate strategies where the limit of credibility is about ten years.

Other mathematical techniques exist, such as *cross-impact analysis*. For example, if there are certain improvements in metallurgy it might be possible to build more powerful jet engines, thus having a cross-impact on the potential development of faster or larger aircraft. Several such techniques are reviewed in a CD (Glenn 1999).

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Not surprisingly, cross-impact has been used in attempts to forecast technological advances (Jones and Twiss 1978, despite its age, is still excellent).

The main limitation of mathematical techniques, despite their apparent 'scientific' basis, is that very complex forces in society or technology have to be reduced to a formula. There is, therefore, apparent advantage in making use of the ability of human judges to cope with subtleties and nuances. Methods for using human judgement form the bulk of the rest of this chapter, but it is convenient to mention here the widely used *Delphi technique* because the Delphic judgements are processed by simple statistical techniques (Glenn 1999).

Delphi derives its name from the oracle of Ancient Greece which would always answer a question, albeit often ambiguously. In modern use, a reasonably large number of people who are assumed to be experts are asked independently to answer questions such as 'when will supersonic helicopters be feasible? Five years, ten years, twenty years, never?' They might also be asked for their reasons such as excessive cost, technical problems, or whatever. When the responses are received, they are collated anonymously in the form of, for example, 10% of respondents believe five years, 10% each for ten and twenty years, and 70% believe it will never happen. This compilation, and there will often be many questions, is then sent out again for the judges to revise their responses if they wish. This second round is again collated and is the final result of the survey. There are several more sophisticated methods of processing the data, but all essentially follow this pattern.

Delphi is quite widely used, but it has the serious disadvantage that people might revise their assessments in the second round to agree with the most popular answer. The maverick who thinks differently, and whose ideas may be the most important, may be suppressed in the data processing. In a recent example (Loveridge, Georghiou, and Nedeva 1995), the respondents were also asked to rate their knowledge of the issue from the expert who is designing supersonic helicopters to someone who is deeply knowledgeable in some other area of technology but knows little about helicopters. Surprisingly, the amateurs were willing to answer the questions and, even more so, the final answers frequently showed practically no difference between the assessments of experts and those of amateurs.¹

¹ Some ten years ago, an American newspaper, the *New York Times* perhaps, surveyed groups of experts and amateurs on their views of inflation and the like for five years hence. It is said, perhaps apocryphally, that when the survey was reviewed after five years, a group of garbage collectors had proved to be the most accurate.

The basic assumption of Delphi and its variants is that humans can make assessments of the future. Its limit of credibility is *as far as human judgement and imagination can stretch into the future*. The use of human insight is attractive but the weakness of Delphi is that the results cannot be traced back to the reasons for them; there is no 'audit trail'.

The rest of this chapter deals with methods to exploit human imagination and *thoughtful knowledge* more systematically. They can be a *narrative* written by one or

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two people or the *systematic judgement* of a team. In all cases, the basic assumption, and the limits of credibility, are the same as Delphi's.

11.3 Narrative Studies

A narrative study is usually a full-length book with the author's carefully researched views on some aspect of the future. There is a voluminous and growing literature from which only four sources have been selected to indicate the main types. The reading of narratives is, in fact, an essential part of the forecaster's art. They feed the imagination, and the essence of futures thinking is the imaginative

visualization of plausible possibilities.

There are two types of narratives, *explorations* and *global surveys*, though these are not mutually exclusive and it is futile to debate into which category a given narrative falls; the distinction is mainly for ease of discussion.

An *exploration* can seem somewhat speculative and might, therefore, be too easily dismissed. For example, a respected scientific journalist, Berry (1995), discusses what life might be like 500 years hence. His projections are firmly based on established science and the views of reputable scientists and his point is that, provided one looks far enough into the future, whatever one sees is certain to happen eventually. For example, he presents a reasoned and plausible basis for the statement that 'perhaps comparatively early in the twenty-first century, hundreds of thousands of people will have the chance to fly into space'. As a plausible possibility, what are its implications for long-term research and development in a company such as Boeing or British Aerospace? Might such firms find themselves saying 'if only we had imagined that mass space travel might plausibly happen we would have done ...'?

Of course, if a firm did invest in developing space capabilities, that might have the *self-fulfilling* effect of making the forecast become reality. On the other hand, if it regarded the forecast as unrealistic and did nothing, the effect might be *self-negating*. There is thus an intimate connection between forecasts and strategic actions. The point is not whether the forecast is 'right' or 'wrong', but whether it is useful.

Similar sources, though there are many others, are *The Future Now: Predicting the 21st Century* (Gribbin 1998) and *The Next World War* (Adams 1998).

Explorations are not science fiction, which is usually not very useful in forecasting. The basis of good SciFi is to explore human behaviour in the context of imagined technologies. It does not explain how they came about, whereas Berry

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and similar sources do consider, by careful analysis, how and why change might occur.

Global surveys differ from explorations in the sense that they take a much wider view and are presented as a connected chain of argument as opposed to a collection of topics. They are not necessarily global in the sense of dealing with the whole world, though that is sometimes the case. They are global in the sense of exploring at some length the wide ramifications of a topic.

To give but one instance, *The World in 2020* (Macrae 1994) is the first true scenario to be encountered in this chapter as it is *a story about the future*. Macrae, with copious notes and references, and in 300 pages, reviews where the world stands now and then discusses such driving forces as demography, resources and the environment, trade and finance, technology and government and society. That leads him to an assessment of where the world might stand in 2020 by regions such as North America, Europe, and East Asia. His conclusion is that, by then, the world will be a better place, though he fears difficulties after that.

Other sources are *The Clash of Civilisations* (Huntington 1997), *The Coming War with Japan* (Friedman and Lebard 1991), and *Preparing for the 21st Century* (Kennedy 1993).

A fascinating variant on this narrative form is *Virtual History: Alternatives and Counterfactuals* (Ferguson 1997), in which a group of distinguished historians explore the debate about whether it is legitimate to speculate on what might have been. Typical topics are 'what if Britain had stayed out of the First World War?'. The book closes with an essay, perhaps slightly tongue in cheek, covering the seventeenth century to the present, in which the Stuart Monarchy was not ended in 1688 but continued to the present and in which John F. Kennedy and Lyndon B. Johnson feature as the Presidents of the northern and southern American states of the British Empire. This is not, of course, futures studies but such excursions of the imagination illustrate the value to the student of the future of reading widely.

The fundamental assumption of the narrative forms is that perceptive and knowledgeable people can, by studying a large amount of information, form judgements about the future. It may be no accident that both Berry and Macrae are senior journalists, whose profession is to study and interpret disparate sources of information. It is important for futures analysts to keep abreast of such narratives as a source of information, insight into the thought of others, and to broaden one's own perceptions.

However, the global survey type of narrative has two weaknesses.

The first is that they tend to be about 300 pages long. How, then, should one react if, halfway through, one sees what might be a mistake, or an interpretation one cannot agree with?²

² For instance, Huntington (1997: 246) states that the first 'intercivilisational' war was the Soviet Afghan War of 1978–89, which makes the reader think of the Crusades as an earlier example.

Are these slips of the pen which do not matter or do they

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undermine confidence in the whole argument? This poses the difficult choice between continuing to accept an argument in which one has found flaws, of rejecting a vast amount of otherwise careful work, or of attempting to repeat the whole exercise oneself. None of these choices is palatable but the reader of narratives should study them critically, seeking for gems and sifting out dross.

The second limitation of global surveys is that they are a single chain of reasoning leading only to one view of what the future might hold. However, we argued earlier that strategic decisions ought to be robust against a *range* of future possibilities and a global survey which gets closer to that is *Russia 2010 and What It Means for the World* (Yergin and Gustafson 1994)- They create four possible future 'Russias' to which they give imaginative names such as 'Muddling Down' and 'Two Headed Eagle'. Further (p. 135), they link these into a diagram of scenario pathways into the future (from 1994), showing the potential for moves into two extreme cases of totalitarianism and decentralization, or via a middle road, but all paths ending at a single future condition of 'Capitalism Russian-style'.

This is very close in spirit to some of the methods to be considered later. The difference is that Yergin and Gustafson's study is founded on what might be called 'learned judgement' and leads to one outcome. We shall examine structured methods, drawing on judgement, but leading to several plausible futures.

To sum up, the last sentence of Macrae's book is the justification shared by all these narratives: 'The more we can understand about the way the world is changing in the run-up to 2020, the greater the chance we have of securing its future.' The rest of this chapter will seek to apply that thought to problems of strategic management.

11.4 Scenarios as Stories of the Future

The term 'scenario' is often used to mean a picture of some point in the future but that is unhelpful. For example 'a scenario in which Australia is a republic' describes a condition but does not explain how it came about. It does not consider other paths in which Australia becomes a dictatorship, remains a monarchy, or ... Similarly, simply saying that *Macbeth* ends with him being killed gives no understanding of the complex motives and events which led to that outcome.

Just as a play or a novel is a story about unfolding events, the dictionary defines a scenario as 'a predicted sequence of events'. Responsible forecasters, however, never claim to predict so we will modify that to:

A scenario is a justified and traceable sequence of events
which might plausibly be imagined to occur in the future.

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Just as a novel is a story in which time passes, its purpose being to entertain, a scenario is a story about the future, its purpose being to stimulate strategic thought and to guard against betting the firm on one expectation. To pursue the theatrical analogy, scenarios are rehearsals for the future (Schwartz 1996). Ringland (1998) calls scenarios 'a well-developed memory of the future'. A scenario should, therefore, be a story of a path into the future, not a description of an end state. Unfortunately, both senses are used in the literature, even by authorities on the scenario process.

Just as a novel is not true, no one expects a scenario to turn out to be true. Indeed, the probability of any forecast of the future turning out to be exactly correct in all aspects is about zero. However, just as a good novel has the valuable and practical effect of deepening one's insights into the variety of human behaviour and motivations³

³ The now neglected works of C. P. Snow are a case in point.

so the futures scenario has the valuable and practical effect of deepening the strategist's insights into the variety and complexity of the world into which his or her decisions must unfold. As we have seen, a scenario may be self-fulfilling if its attractions are such that people actively seek to make it come about. Equally, it may be self-negating if its horrors make one try to avoid it. The true value of a scenario is whether anyone changes their behaviour or decisions as a result of reading its story.

A novel, however, is only one story about the time in which its characters live. Strategic thinking requires more than one story about the future in which decisions must live. The stories in the scenario set are required to be equally plausible, *but there must be no suggestion that one scenario is more or less probable than another*. Thinking about the future is a necessary, but not sufficient, part of strategy. One also requires some means of deciding what to do about the future's anticipated variety. That is why this chapter has the title of 'Scenario Thinking *and* Strategic Modelling'.

We must now turn to the *systematic judgement* approaches and, in the next three sections, consider some forms of scenario development. After that we shall turn to the problems and techniques of strategic modelling.

In essence, there are three approaches to scenario development: intuitive logic in which the scenario is derived by consideration of the significant uncertainties but without the use of a defined analytical process; combinatorial approaches which consider all possible combinations of the extremes of uncertainty, retaining only those which are strongly consistent; morphological approaches in which the scenario team eliminate anomalies from a formal description of a social field and develop time line scenarios from the remaining consistencies. All three approaches depend *fundamentally* on imagination and insight. The combinatorial and morphological methods have some similarities but also important differences.

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11.5 Intuitive Logic Scenarios

Scenario thinking has its modern origin in the Cold War. Much thought went into thinking about driving forces and chains of events which might lead to conflict between Nato and the Warsaw Pact and into how conflict might proceed if it happened. One case was an analysis of how nuclear war might occur and what its consequences might be. The resulting story was so appalling that it led to the doctrine of Mutual Assured Destruction which has been credited with achieving a stable balance which did not lead to nuclear war; an excellent, and highly valuable, case of a self-negating forecast.

11.5.1 The Shell Scenario Process

Shell Oil were first to use this type of scenario in business and have put much effort into learning how to develop them. Indeed, two prominent figures in forecasting worked at Shell (Schwartz 1996; van der Heijden 1996). Their wisdom and experience can be summarized only briefly; the serious student must read the originals.

Broadly, their scenario-writing is based on conversation and study of data. They emphasize that creating scenarios is an art of shared imagination and insight; indeed, their books are respectively entitled *Scenarios: The Art of Strategic Conversation* and *The Art of the Long View*. The key idea is that a scenario is a kind of strategic 'wind tunnel' in which the ability of a strategic decision to 'fly' in the variety of circumstances an uncertain future might hold can be tested. Just as a wind tunnel for testing a supersonic fighter might be unsuitable for an airliner, so must the scenario be appropriate to the decisions in question.

In outline, the Shell process is as follows (Schwartz 1996):

- **The Decision.** The focus of effort must, in Schwartz's view, be on the decision context, such as whether or not to build a billion-dollar oil facility, and a scenario cannot be developed in isolation. The first step, therefore, is to select the key factors in the immediate environment that will influence the success or failure of that decision; customer behaviour, perhaps, or technological change.
- **Driving Forces.** The significant forces which impinge on those factors have now to be identified. They can be categorized under the well-known PEST acronym: Political, Economic, Social, and Technological, but they add another, E for Environmental. Other factors might be Resources and Conflict; perhaps included under Environment or perhaps treated separately. The keys are not to force oneself into a straitjacket and not to consider the whole world, but only those factors relevant to this decision context. Under these headings some forces are essentially constant, such as that the adult population twenty years hence has

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already been born. However, there might be critical uncertainties, such as the proportion of adults in single-person households and those couples who might choose to remain childless. The constant factors must, of course, be the same in all scenarios and the differences lie in the uncertain driving forces.

This process requires much thought; Ringland (1998) calls it 'intuitive logic'. Gait *et al.* (1997) describe how it can be supported by writing ideas on hexagons, which can be rearranged on a magnetic board to help to identify themes and group them into patterns.

Finally, driving forces are ranked according to their importance for the decision and their uncertainty. Some might be discarded so that one ends with a few factors which are both important for this decision and are uncertain.

- **Writing the Story.** Novels have themes, such as love or adventure, and the scenario story requires a broad logic or theme. Schwartz suggests several ideas such as 'Challenge and Response'. Perhaps London's position as a centre for financial services is challenged by Frankfurt and Tokyo; what are the drivers and uncertainties which will affect the viability of a strategic response? Other themes are 'Winners and Losers' and 'Infinite Possibility'. The point is not what these themes are but to emphasize the imaginative act of getting into the deepest essence of the decision and thinking, as it were, of the type of wind tunnel that will test its ability to fly.

It is extremely important to think of a simple, memorable, name for each scenario which will immediately call to mind its essence. For example, Ringland (1998) describes the Mont Fleur scenarios, developed at the time of negotiations for transition to inclusive democracy

in South Africa, and Table 11.1 makes it clear that the descriptive name strikingly encapsulates each scenario.

It is important to note that there are *four* Mont Fleur scenarios, because that is what the issues required. By contrast, there is a temptation to have three scenarios, calling them Best Case, Worst Case, and Business as Usual. The names are not

Table 11.1 The Mont Fleur scenario names

Scenario number	Summary	Descriptive name
1	Negotiations do not achieve a settlement – non-representative government	Ostrich
2	Transition not rapid and decisive – government that emerges is incapacitated	Lame Duck
3	Democratic government's policies are not sustainable, collapse inevitable	Icarus
4	Government policies sustainable – South Africa can achieve democracy and growth	Flight of the Flamingos

Source: Reproduced by permission from Ringland (1998).

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imaginative and there is an assumption that things might get better or worse or they might not change. What if things could only get better or they could only get worse? The idea of Business as Usual implies no change, and that is one description of the future which, by definition, is rather implausible. *The key is to have as many or as few scenarios as the uncertainties around the decision require and to describe them by strikingly memorable names.*

- **Implications.** The final stage of the Shell process is to assess the implications of a scenario, and techniques for doing so are described later in this chapter. Those approaches derive from other work and are not necessarily those used in Shell. Having assessed the implications, Schwartz argues that *leading indicators* have to be established as a means of identifying which scenario is closest to the truth as time passes. Since, however, the value of a scenario lies in making people think, and no scenario claims to be a prediction, the value of these indicators is not clear.

11.5.2 Scenario Cases

An excellent way of developing the mindset needed for scenario thinking is to study examples. Ringland (1998) and Gait et al. (1997) have case studies of their own, and others', work. There is, moreover, no single ideal way of developing scenarios and Ringland, in particular, describes ways in which different organizations have developed their own approach and learned how to use it.

11.6 Combinatorial Scenarios

Von Reibnitz (1988), as with all scenario workers, emphasizes that scenarios are an act of imagination and judgement but supports their development by a process which first searches all combinations of the uncertainties and then eliminates those which are not internally consistent.

The initial idea is shown in Table 11.2. In this instance, the client in question has identified numerous factors in the problem, only a few of which are shown in Table 11.2. Each is allowed to have two extreme conditions, such as High and Low. The client then makes judgements such as 'GNP Growth is consistent with Success in New Technologies'. In this case, the consistency is deemed to be strong and is given a rating of 2, moderate consistency being rated at 1. However, it is judged that Flop in Structural Change would not be consistent with Success in New Technologies, which is rated at -1. Von Reibnitz's method does allow for strong inconsistency, rated at -2, but she states that this is rarely used in practice. A rating of 0 means no

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Table 11.2 Consistency matrix

Consistency matrix		1		2		3		4	
		a	b	a	b	a	b	a	b
(1) New technologies	(a) Success								
	(b) Flop		x						
(2) GNP	(a) Growth	2	0						
	(b) Decline	0	1		x				
(3) Structural change	(a) Success	2	-1	2	-1				
	(b) Flop	-1	2	0	2			x	

(4) Unemployment rate	(a) Higher	0	1	0	2	0	1	
								x
	(b) Lower	1	0	2	-1	1	0	

Source: Reproduced by permission from von Reibnitz (1988: 45).

effect. A consistency matrix can be as large as required and, apparently, more than 100 factors can be considered.

Simply by looking at Table 11.2, it is clear that a combination of success with new technology, growth in GNP, successful structural change, and lower unemployment does not involve any contradictions; all the numbers are positive. Similarly, failure of new technology, declining GNP, failure of structural change, and lower unemployment do not involve any negative ratings and so is also consistent, albeit very different from the previous instance. Von Reibnitz uses a proprietary computer program to test all the possible combinations for their consistency.

Von Reibnitz's approach also tests what she terms internal stability, though without giving details of the method. She states that, typically, out of one thousand combinations only about thirty are strongly consistent and, of those, only about fifteen will be stable and, of those, a few will appear which are consistent, stable, and very different from one another.

Her approach, like all the methods described in this chapter, has strengths and weaknesses. It has the advantage of exploring a large number of possibilities before selecting only a few, as opposed to pre-selecting only a few for detailed exploration. Its concept of identifying and avoiding logical contradictions is powerful and is very close to the morphological methods discussed below. Its weakness is that each factor is limited only to two extreme conditions; GNP either rises or falls, it does not

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remain unchanged. Many factors can be dealt with whereas the morphological methods described below are restricted to not more than seven. That may or may not be a strength of the approach as the limit of seven arises from the inability of humans to grasp more than that number of factors at once and hence to see an overall picture. When the combinatorial approach handles, say, 100 factors it will not be possible to form an appreciation of the complete pattern of circumstances. A final weakness is that it seems to be difficult to trace a path from the present into the futures her technique picks out.

11.7 Morphological Methods

Morphology means 'the study of the whole form and structure of anything'. The idea has been used in engineering to imagine all possible types of aircraft by considering combinations of engine type, numbers, and power, airframe shape, and all the other aspects of an aircraft. That led to a very large number of hypothetical aircraft, many of which would, literally, never be able to get off the ground. When those anomalies were eliminated, there was a residue of possibilities representing new concepts in aircraft design that had not previously been imagined.

11.7.1 Field Anomaly Relaxation (FAR)

In morphological forecasting, the principle is to visualize the societal or business environment in which a policy has to be made as a field of interactions between component aspects such as economic growth, political stability, and so forth. Each of the components of the field may have several conceivable conditions; economic growth may be high, low, stagnant, and so on. The idea is to create 'filing space' for all plausible possibilities. One of the possibilities for the political aspect might, for instance, be 'instability' and it is easy to see that a world which was politically unstable could not, at the same time, have high economic growth. Such a world could not exist, either now or in the future. Such anomalies can be eliminated from the field, hence the name *Field Anomaly Relaxation*, or FAR, for this scenario approach. FAR differs from von Reibnitz's method in that GNP, for example, is not restricted just to growth or decline but might also be allowed to be unchanged, grow slowly, decline very rapidly, or whatever is needed.

FAR also differs from the intuitive logic approach as it is not directed to supporting a specific decision. Rather, it aims to provide a backdrop of internally

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consistent futures as contexts for policy formulation and decision-making. The contexts should normally not be tailored to any specific decision, as was the case with the Shell process. Rather, they should be potentially applicable for broader policy-making and decision analysis across the organization as a whole by providing consistent and coherent views of the future.

FAR's origins lie in the 1960s when the Douglas Aircraft Company was trying to develop ten-year corporate plans for its four divisions building various types of military and civil aircraft. The idea was that the plans from the divisions for such matters as skilled labour could

be added to produce an overall corporate plan. Doubts were raised about this apparently logical idea and it became clear that the world-views of the sets of planners were different. Civil aircraft had assumed a peaceful world and an associated demand for skilled labour to build X aircraft per year. The military side had a world-view involving conflict and, hence, required labour to build Y military aircraft per year. These two world-views could not be compatible and the plans were not additive. That led to a research effort to compose internally consistent world-views as, so to speak, stage settings as backgrounds to the company's thinking. As mentioned above, these views did not deal with the details of particular aircraft but with the field of interactions in which the aircraft planners had to work.⁴

⁴ I am grateful to Dr Russell Rhyne for providing this glimpse of the history of a methodology.

That early work led to the development of FAR, the method being due to Rhyne (1981, 1995a), who applied it to a wide range of social fields in which business and governmental policies might have to live. His account of its application to problems of Indonesian defence in the 1970s (Rhyne 1995b published twenty years after the work) is a masterpiece of scenario thinking, especially for its painful honesty about all the things that went wrong in the management and organization of the project. More recent applications are to regional problems in the South-West Pacific (Coyle and McGlone 1995) and the South China Sea (Coyle and Yong 1996). It has also been used in several confidential applications in the writer's consultancy work for governmental and commercial clients. Since it involves a very systematic procedure, it requires description at greater length than the intuitive logic of the Shell approach.

FAR has a number of attractive features: it is fundamentally based on imagination, insight, and judgement exactly as in the Shell process; it gives a clear audit trail of the logic underlying the scenarios it produces; all conceivable options are examined before discarding those which are infeasible, as is the case with von Reibnitz's approach; the scenarios are true scenarios in that they are traceable paths into the future; finally, it generates as many or as few scenarios as the case calls for and is not restricted to only two or three pre-selected themes. Readers should evaluate these features in the ensuing discussion and, and this is critically important, form their own assessments of FAR's weaknesses *vis-à-vis* those of the methods already considered.

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The FAR process is best performed by a small study team supported by a steering group of decision-makers. It is a four-stage process, as shown in Figure 11.2. Step 1 calls for one to develop some kind of imaginative view of the future into which the decision must unfold. Step 2 is very much as the Shell process and requires one to identify the critical uncertainties and their ranges of possibility expressed in a matrix. Step 3 eliminates the anomalies after which, in Step 4, the surviving configurations can be strung together to form scenario outlines.

FAR is cyclic in that the scenarios developed in Step 4 will, ideally, make one think more deeply about the future and hence lead to better scenarios. This convergence towards a solution is called Relaxation in engineering, hence the full name of Field Anomaly Relaxation. In practice, the first cycle may produce such good scenarios that the added effort may not be worthwhile. In any case, decision-makers may require the scenarios urgently as a basis for judgement and time may not be available for a second cycle.

Whether there are one or two iterations, the process ends by using the scenario outlines as the plots around which stories of the future can be written. FAR leads to a collection of short stories rather than one extended narrative. In use by the author it typically leads to about four scenarios, though Rhyne's work often gave rise to about ten.

We now illustrate that process using the South China Sea case study which sought to develop unofficial scenarios as contexts for policy-making on Singapore's trade and defence relationships with, and economic support for, other nations in the region.

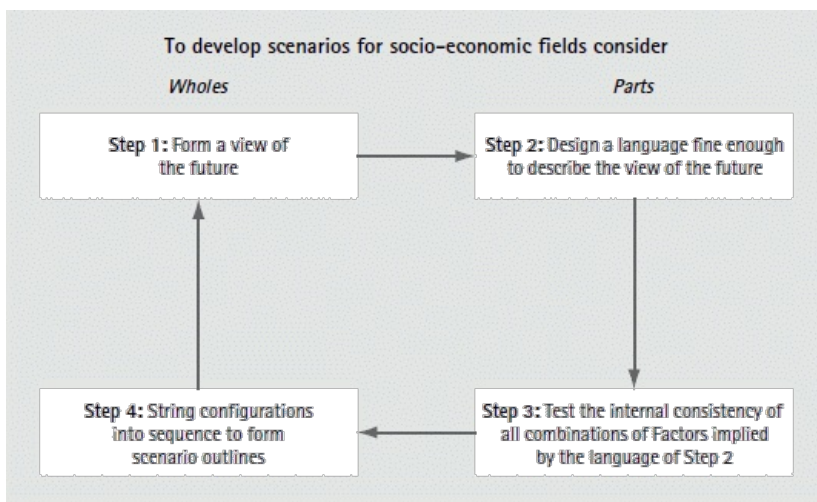


Fig. 11.2 The FAR cycle (after Rhyne)

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- Step 1: Visualise the Future

This is best done by asking five or six members of the steering group to write short essays in which they imagine what the future might be like in the South China Sea region. They might be allowed to choose their own themes or they might be given guidance, such as 'write about a gloomy future'. That does not necessarily mean that one aims at a gloomy scenario, the aim is to tease out the factors they see as significant in the region's future and it may turn out that a gloomy scenario will not emerge from the final analysis. The same process works well whether the context is the socio-economic field for a business firm, the industry in which it operates, or transport planning for a city. It is, however, vital that the essayists work independently and that they draw on deep knowledge of the problem domain using whatever data and information is available. The end result is a narrative, somewhat on the lines of Macrae's work, though *much* shorter.

Teasing out the factors is most easily done by using mind maps (Buzan 1993). These allow one to string together individual comments by the essayists into a picture of the things they mentioned. Not uncommonly, they make the project team think of other aspects. The mind map for the South China Sea appears in Figure 11.3.

- Step 2: Develop a Language for the Problem

The radiating branches in Figure 11.3 show that China, Economic Growth, and so forth are themes in the essays and hence are aspects of the problem. One need not use those branch labels exactly, as they are only a convenient way of abstracting ideas from the texts of the essays. Instead, one seeks a *gestalt* appreciation of the web of factors; in other words, a 'perception of a pattern or structure possessing qualities as a whole that cannot be described merely as a sum of its parts'. This is the most imaginative step in FAR and may need two or three tries before the right language can be found.

It is very important that the main themes, or Sectors as they are called in FAR, be arranged to make a memorable acronym, ESPARC in this case. Thus, the Economic Dimension is first only because it is first in ESPARC, not because it is the most important Sector. ESPARC has now become a word, otherwise meaningless, which is a meta-language for this problem. It is also important that each Sector name is supported by thorough documentation of what is meant by, say, China's attitude. Finally, it is essential that there be not more than seven Sectors as that is the maximum that the human mind can grasp.

Each Sector is broken down into a collection of so-called Factors. These are the fine detail of Sector behaviour and are chosen to give what we earlier called 'filling space' for all plausible possibilities. Each Factor is, again, supported by explanatory documentation, even though it is summarized in a pithy phrase in the matrix. In this case, the end result is shown in Table 11.3. There is no theoretical limit to the number of Factors for each Sector but experience suggests that seven is a convenient, though not overriding, maximum.

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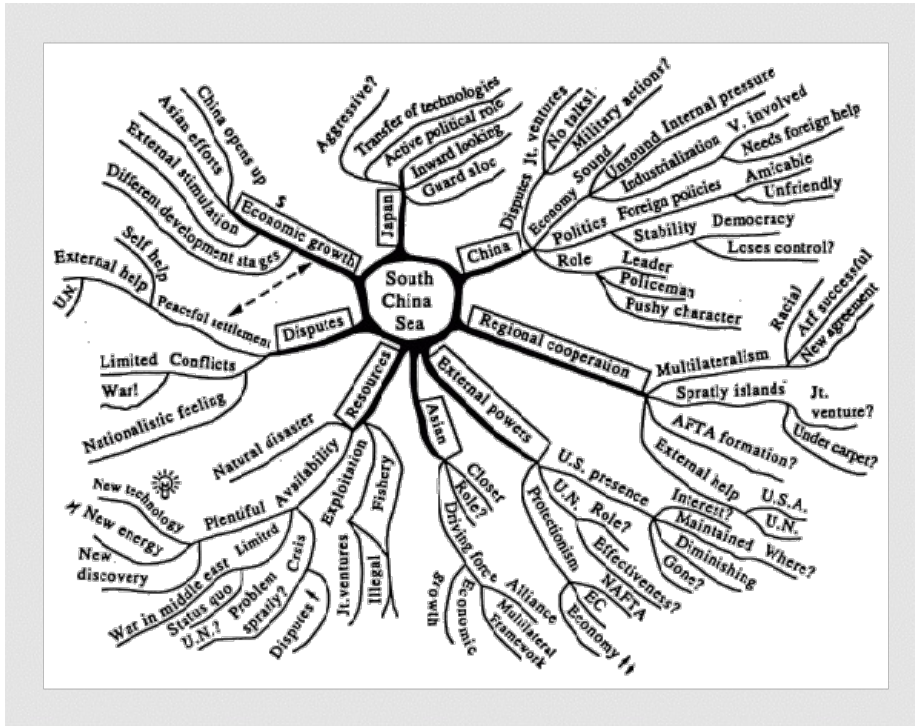


Fig. 11.3 The South China mind map

The sequences of the Factors in the columns of Table 11.3 are chosen simply for convenience. In the Economic Dimension column, for instance, the progression from E1, Rosy growth, to E4, Negative growth, has no greater significance than that it makes for easy reading of the filing space of possibilities for the economic aspects of the problem. Further, and this is the vital point, the arrangement in the columns does *not* mean that a Factor can only change to the next adjacent state. Again using E as the example, if the current condition is E2, Fair growth, then, if things get better, the only possible move is to E1, but if they get worse, the move could be to either E3 or to E4. Similarly, if China's attitude now is C3, then it could change to C1, C5, or C6 and does not have to move via C2 or C4. In short, the identifying numbers on the Factors are no more important than the labels of files in a filing cabinet. Reading one file in a cabinet does not force one to read only the adjacent file. *In FAR, the numbers are only labels and have no other significance.*

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Table 11.3 ESPARC Sector/Factor array

E	S	P	A	R	C
Economic Dimension	Political Stability	External Power Dimension	Regional Coop/ Alliance	Resource Pressure	China's Attitude
E1: Rosy growth	S1: Strong and stable	P1: Effective and very influential	A1: Close cooperation	R1: Low pressure	C1: Leader and policeman
E2: Fair growth	S2: Fairly stable	P2: Fairly influential	A2: Loose multilateralism	R2: Moderate pressure	C2: One of us
E3: Stifled growth	S3: Shaky	P3: Limited influence	A3: No multilateralism	R3: High pressure	C3: Minds own business
E4: Negative growth	S4: Unstable		A4: Enmity	R4: Crisis situation	C4: Pushy, verbally C5: Forceful, military C6: Warlike

• Step 3: Test for Internal Consistency

A 'world' for the South China Sea can be described by taking one Factor from each Sector. For example E2S2P3A2R2C3 can be appreciated, in the *gestalt* sense, as a world in which self-help is underway. The reader needs to study the table to see this. The use of ESPARC and its subscripts is, at first, confusing, but repeated applications in practice or as student projects have shown that one rapidly becomes fluent in the meta-language so that E2S2P3A2R2C3 takes on a meaning of its own.

Unfortunately, Table 11.3 has 4,608 combinations of ESPARC, and that number of possible worlds is far too large to be useful. In a larger case, 7 Sectors and 7 Factors would give 823,543 combinations. What makes FAR work is the *gestalt* appreciation that one could not conceive of a world in which the economic dimension was E1, Rosy growth throughout the region and, at the same time, China was warlike, C6. That is an anomalous world and eliminating it from the problem reduces the number of worlds to 4,416.⁵

⁵ There are 192 combinations in the SPAR columns (43 * 3) and 24 in E and C. When the pair E1 and C1 is eliminated, 23 of those remain, or 192 of the total have been eliminated. In a 7 x 7 matrix, eliminating the first anomaly removes 16,807 combinations.

Naturally, the whole FAR process is supported by software.

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The end result is shown in Table 11.4 in which 0 denotes a combination which is manifestly inconsistent and 1 indicates probably inconsistent, 2 is probably consistent and 3 means certainly consistent. Eliminating those with scores of 0 and 1 leaves 91 survivors. When these are examined as whole patterns, using the *gestalt* criterion of 'could I imagine a world like that?', a further 15 were eliminated. This is supported by the consistency ratings. With six Sectors, there are 15 pairwise combinations all of which have to be reasonably consistent for the configuration as a whole to be consistent. Of course, if any one of the pairs is inconsistent, the whole configuration is inconsistent. If the maximum possible score for a given pair is 3, the maximum for a 6-member configuration is 45 and any configurations scoring less than, say, 35, can be eliminated.⁶

⁶ The reason for this apparently arbitrary step is that a 6-member configuration has 15 pairs. If 5 of them are strongly consistent and rated at 3, but 10 are only moderately so, rated at 2, the configuration as a whole becomes suspect. Clearly, 5 threes and 10 twos come to 35.

This process is analogous to von Reibnitz's approach.

Further *gestalt* inspection allows one to cluster individual configurations which describe similar worlds, the end result being 26 clusters.

Table 11.4 The ESPARC Sector/ Factor pair matrix

	S S S S	P P P	A A A A	R R R R	C C C C C
	1 2 3 4	1 2 3	1 2 3 4	1 2 3 4	1 2 3 4 5 6
	3 2 0 0	2 2 2	3 2 1 0	3 3 1 0	1 3 2 1 1 0
E1	3 3 1 0	2 2 2	3 3 1 0	3 3 1 0	3 3 3 1 1 0
E2	1 2 3 1	2 2 2	1 1 3 3	1 2 3 1	1 1 3 3 1
E3	0 1 3 3	2 2 2	0 1 2 3	1 1 3 3	1 1 2 3 3
E4					
S1		3 2 2	3 2 1 0	3 2 0 0	1 3 2 0 0 0
S2		2 3 2	2 3 1 0	2 3 1 0	2 3 2 1 1 0
S3		1 2 3	1 2 3 1	1 2 3 2	1 1 2 3 1 1
S4		0 1 3	0 1 3 3	1 1 3 3	1 1 2 3 3 3
P1			2 2 2 1	3 2 1 1	2 3 3 1 1 1
P2			2 2 2 1	3 3 2 1	3 3 3 2 1 1
P3			2 2 2 3	3 3 2 2	3 3 2 3 3 3
A1				3 2 1 0	1 3 2 1 0 0
A2				2 3 2 1	3 3 3 3 3 1
A3				2 3 3 2	1 1 3 3 2 1
A4				0 1 3 3	1 1 2 3 2 2
R1					1 3 1 1 0 0
R2					2 3 3 1 1 0
R3					3 1 1 3 3 1
R4					1 1 1 2 3 3

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- Step 4: Form Scenarios

The 26 clusters are not themselves scenarios but are the bricks from which scenarios are constructed and that is the stage of FAR most demanding of imagination and patience. The technique is to write each cluster onto a Post-It sticker with an identifying letter and a few words which characterize that cluster. A few examples are 'ASEAN (the Association of South-East Nations) starting to take shape', 'End of disputes over South China Sea (SCS) resources', 'World-wide energy crisis sparks severe tensions over the oil

resources of the SCS', and so on. The stickers are then simply manoeuvred on a board until they fall into sequences, always applying the *gestalt* appreciation of 'Can I see *this* world leading to *that* one?'. This process may take a week or so, not of full-time effort but of sessions looking at the board and intervals of other work while the ideas filter through the minds of the study team.

It is essential that the stickers and their labels be large enough to be legible while one walks round the room and thinks. Developing the sequences on a computer is bad practice though the results should, of course, be recorded using a graphics package.

For the South China Sea, the end result is shown in Figure 11.4 in which there are four groups of paths. The solid lines indicate transitions which the team could visualize with confidence, the dotted lines are transitions which were seen as less plausible. For example, there are plausible paths to P but, beyond that, if the less plausible transitions do not occur, the state P will simply continue with Asia never fully developing its own identity. State C might be reached fairly quickly from A, or more slowly via B. State S is a resource crisis elsewhere in the world and, since assessing the plausibility of that is somewhat beyond the frame of reference of this study, it is shown as a 'wild card' which would be the triggering agent of a move from a rather unpleasant world, R, to even less attractive cases such as Z and M. The message in this case is that Asia is unlikely to cause its own catastrophe but may be forced into one by events elsewhere.

The idea that closely comparable configurations might be clustered together is shown by notations such as E2S1/2P2/3A2R2C2, for configuration F, and elsewhere in the tree.

Writing text scenarios is now easy. Each configuration in the tree has, it will be recalled, a few words describing its essence. For example, those for A, C, and N are:

A: Situation in South China Sea (SCS) as in 1994

C: Self-help in process: ASEAN Regional Forum and other multilateral framework taken off; but still an uncertain time depending on China's next move

N: Cooperation among regional countries and external power(s) to bring about a stable climate in the face of an unpredictable China; disputes in SCS remain low in profile.

That might now be written as the first part of a short story of the future:

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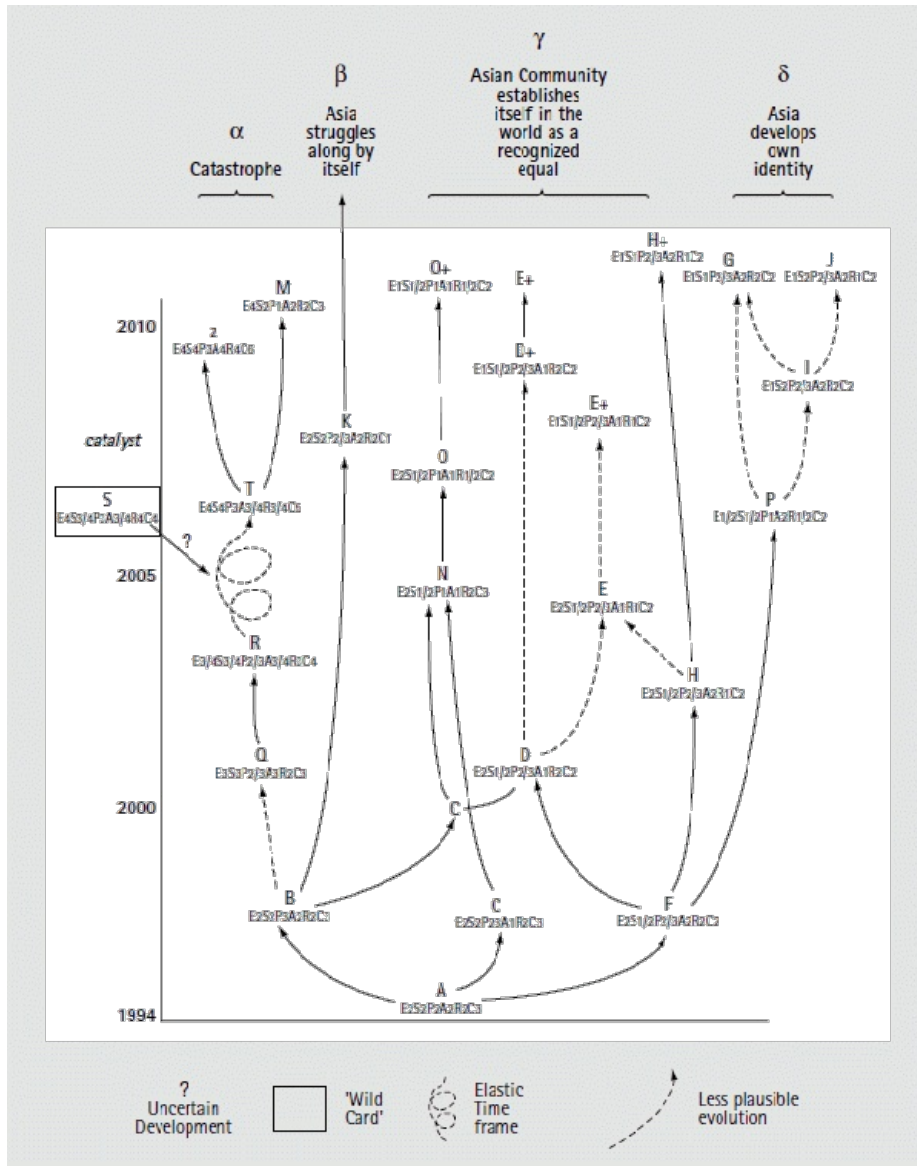


Fig. 11.4 The South China futures tree

end p.329

The first years after 1994 saw a growing trend to self-help through the aegis of the ASEAN Regional Forum and other multinational mechanisms, though there was still uncertainty about China's intentions. Thereafter, China's unpredictability continued to be a concern but, because her own needs for economic development and political stability made her continue to mind her own business, it was possible, though progress was slow, to improve co-operation and develop stability. Fortunately, disputes, especially those involving the Spratly Islands, remained low-key.

The short stories are an audit trail in that they trace a sequence by which, say, end condition α might be reached. The audit trail both explains the logic and is a means by which the scenario, in both senses of a path and an end condition, can be challenged, revised, and improved upon. As with all scenarios, the stories do not have to be true, their purpose is to sensitize strategy formulation to the uncertainties of the future.⁷

⁷ It is obvious that, if any one scenario is even half true, all the rest must be false. That does not make them valueless.

Their value will lie in making decision-makers think about the robustness of their choices in the face of the future's vagaries, and not seek the illusion of an optimal decision.

11.7.2 Extended FAR

Usually, in a FAR Sector/Factor array, a Factor is not constrained to move only to the adjacent condition but can change to any other value in its column. In some cases, though, such as some corporate modelling studies, the Sector/Factor matrix can be so written as to preclude large movements. For that condition, Powell and Coyle (1997) have developed an approach which they call EFAR, for Extended FAR. It relies on defining the Sector/Factor matrix in such a way that the Factors in a given Sector form a natural progression, as it were 'up and down' a scale. An example is the company's share price, the filing space for which is, say, £2.50, £3.00, £3.50, and so on up to £5.00. Share prices for large companies do not normally change in large steps so, if the present price is £4.00, the only feasible moves are by one step to £3.50 or £4.50 or, just possibly, by two steps.

EFAR works by first eliminating anomalies, as in standard FAR. The next step is to define rules such as that no one Factor can move more than two steps at a time or that there can be no more than four steps in total across the whole Sector/Factor array. Given such pragmatic judgements, the surviving configurations can easily be grouped into clusters from which sequences and scenarios can be developed.

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11.7.3 Applications of FAR

The FAR method has been applied to a range of problems and it is not restricted to the geopolitics of regions such as the South China Sea. A few examples, mainly unpublished, are: corporate strategy in an aerospace company; management buy-out in a high-technology firm; the future of a school district; regional economic development; national park development policies; planning the reconstruction of a nation's mining industry; management of border controls between two countries; and in several military planning applications.

11.8 Normative Scenarios

The customary basis of scenario work is to appraise the future's possibilities, the conclusion being, in effect, 'Here is what might plausibly happen. You, Decision-Maker, would be prudent to be aware of these possibilities and make sure that your decisions are robust against them'. The underlying emphasis is that the future is something to be lived with but that not much can be done to make it any different. In the example of the oil price crisis from the beginning of this chapter, the thrust was that, by not thinking of the possibility that the demand for oil would fall, the industry got into serious trouble. Scenario thinking might have enabled the industry to insulate itself better against that shock, but the industry could not have prevented the shock.

There is, however, no reason in principle why scenario thinking cannot be used to shape the future, though Wood and Christakis (1984) are among the few to have shown how that might be thought about. Their case study describes the use of several futures techniques, including FAR, to study planning and economic development in the North Piedmont region of Virginia. One of their main concerns was to develop a process by which concerned citizens could take part in the planning process.

Their FAR analysis shows two futures for the North Piedmont which we will simply identify as Good and Bad, from their point of view. Although in scenario work there should be no concept that one future is more probable than another—they should, in Rhyne's phrase, be 'comparably plausible'—Wood and Christakis regard Bad as most likely to happen. Both Good and Bad are described by the equivalent of an ESPARC configuration and simply by comparing the Sector/Factor array descriptors of the two cases they are able to arrive at a set of planning gaps, one for each of the seven Sectors in their array. A similar approach, developed independently, will be encountered in the case of Littleworth and Thrupp, below.

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11.9 Strategic Modelling

In the practical formulation of strategy, scenario thinking leaves open the question of 'what do we do with the scenarios now that we have them?'. To deal with that takes us into the realm of *strategic modellings* which we shall examine a few approaches to the evaluation and creation of strategic options. Three points must be established before we do so:

1. The first is that the 'hard' Operational Research methods such as queuing theory and mathematical programming, in which problems are expressed in strictly formal mathematical terms, are of little use in strategic thinking. They do have their role in management; for example, it is doubtful if oil refineries could now be operated without the aid of linear programming, but that method does not help with the issue of expansion or reduction of refinery capacity in the face of uncertainty. An exception is game theory, described by Powell elsewhere in this Handbook, but that is more due to the scope it offers to imagination when choices and options are structured and evaluated, and less because of the underlying mathematics.

2. The second is that the methods to be described are 'soft' in that they depend on systematic thought and tables of words rather than equations with numbers. They are intended to promote imagination about the somewhat open-ended problems of the future rather than to give optimal solutions to the well-defined tasks of the present. The reader would do well to ponder the seeming paradox that the most important problems, such as the survival and prosperity of the firm, are so hard, in the sense of difficult, that they can only be addressed by soft, creative thinking, methods.
3. Thirdly, the following approaches are not the only ones available nor is there a 'right' way of using them. There is, of course, only one correct way of solving a triviality such as a quadratic equation, but there are no 'correct' ways of doing the harder problem of resource analysis. If, therefore, the reader thinks of another way of tackling strategic issues, so much the better.

In summary, since strategic thinking is so fundamentally an act of imagination, there is much advantage in the use of simple tables or matrices to display the results of imagination so as to stimulate further insight. Much of this section is devoted to that type of approach.

11.9.1 Some Matrix Techniques

Van der Heijden uses a deceptively simple table of the consequences of the Mont Fleur scenarios which were shown in Table 11.1. His approach is to rate strategic options against scenarios using + and – signs to indicate how much better or worse each option is relative to carrying on with the present policy (colour coding could

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also be used). The 'do nothing' option should always be considered when evaluating strategic choices because change is not automatically for the better. His assessments are shown in Table 11.5 in which a blank indicates no advantage or disadvantage relative to 'continue as is'.

Van der Heijden stresses strongly that the object is not to decide which option should be accepted, in fact it is clear from Table 11.5 that none of the options is robust against the future's uncertainties. The aim is to stimulate work towards improving the proposal. It is also clear that the world of the Flamingos is so attractive that effort might be devoted to help to bring it about so that long-term investments might prosper.

Table 11.5 says nothing about how the options were selected in the first place though van der Heijden mentions the use of SWOT—Strengths, Weaknesses, Opportunities, and Threats—which we shall see later in the case of Littleworth and Thrupp.

Table 11.5 Scenario/option matrix

	Ostrich scenario	Lame Duck scenario	Icarus scenario	Flamingos scenario
Withdraw Continue as is	+		–	–
Short-term investments	–		+ +	+
Long-term investments	– – –	– –		++ +

Source: Reproduced by permission, van der Heijden (1996: 234).

There are other techniques and Gait et al. (1997) describe the Idon Scenario Matrix, Idon being their trade mark. Space does not permit a full explanation, but the framework is shown in Table 11.6; the reader should turn to the source for a full account. Starting with a blank matrix, the first stages are to identify the scenarios and the decision options which are written in the top row and the left-hand column. The matrix will handle as many scenarios and options as desired and is not limited to four and three as in this example. One then takes each decision option in turn and works across the rows, asking the question 'what would be the consequences of pursuing option 1 in scenarios A, B ...'. This is the meaning of 1A and so on which stand for 'this could cause problems unless we ...', or 'to get the best out of this we would have to arrange to ...'. Once a row has been completed, the key step is to rephrase its option as a very specific choice which will be as robust as possible in the range of scenarios. The final stage is to work down each column and identify the core competence which would be needed in each of the scenarios.

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Table 11.6 Idon scenario matrix

	Scenario A	Scenario B	Scenario C	Scenario D	
Decision Option 1	1A	1B	1C	1D	Robust Option 1
Decision Option 2	2A	2B	2C	2D	Robust Option 2
Decision Option 3	3A	3B	3C	3D	Robust Option 3
	Competence A	Competence B	Competence C	Competence D	

Source: Reproduced by permission, Gait et al. (1997: 107).

It is clear that this approach depends on imagination, as all scenario techniques should, and that it calls for much well-managed debate

and argument. The matrix should not, of course, be seen as a form to be laboriously completed but as a foundation to stimulate insight and to record the results of thought.

11.10 A Process of Strategic Analysis

We are now about to embark on a case study in strategic analysis for an imaginary firm (which is heavily disguised and rather simplified from a real analysis). In doing so, we shall use a series of techniques and it will be useful to have a preview of how they relate to the management problem in question, as we must not become trapped by the idea of using techniques: the essence is to shed light on a strategic problem.

This template for strategic analysis is shown in Figure 11.5 and will call for some explanation. First, let us say that this approach has been found to work well and the reader will probably find it helpful for the Coyle (forthcoming) case study later in this chapter. However, it is not the definitive template which must always be used and the skilled practitioner remains alert to the possibilities of using other methods when they might be more fruitful in a given case. At this stage, we are simply going to mention some techniques and show how they relate to the problem domain. The techniques themselves will be explained as we explore the case study in the next section. For now, the reader should simply get the idea that there is a template for analysis and have some picture of what it contains.

Figure 11.5 is divided into two halves for the problem-solving domain and the analytical tools which bear on its facets. The first stage is to think about what the future might hold and the right-hand side suggests that this is the province of

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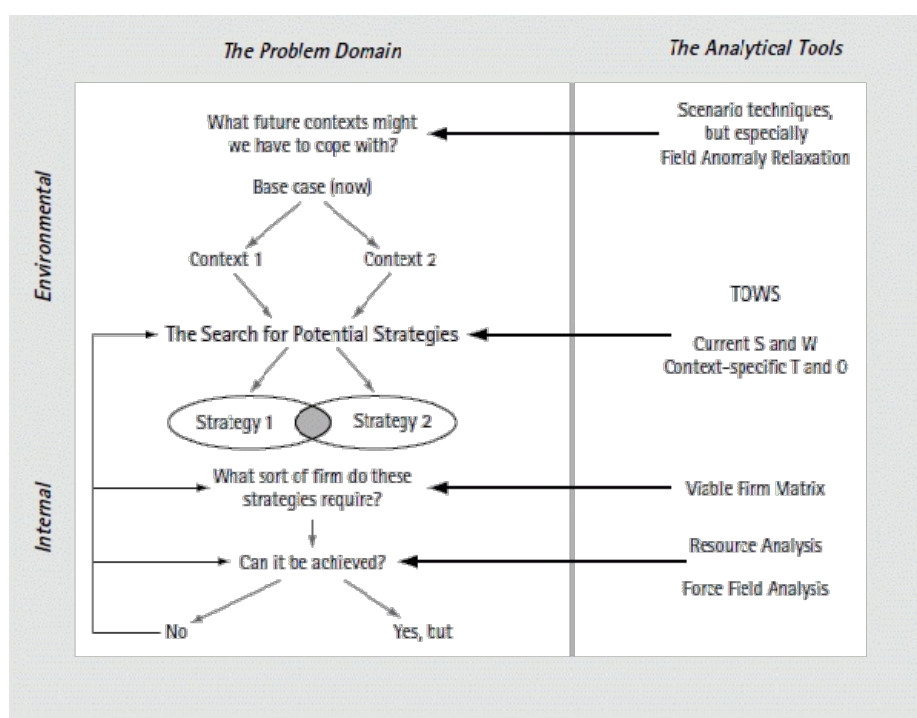


Fig. 11.5 The process of strategic analysis

scenario techniques and, especially, FAR. The outcome of that, in the problem domain, is more than one future context (there might in practice be several) and a test of the usefulness of those contexts is whether or not there is a plausible path by which each might be reached from the present. It is a strength of FAR that it produces such paths. There is, of course nothing at all wrong in using some other scenario method if it might work better for a given problem.

Next, one must cross the boundary from the external to the internal worlds in the search for potential strategies and, for that, we will introduce the idea of analysing Threats, Opportunities, Weaknesses and Strengths, or TOWS.⁸

⁸ This is usually called SWOT, but it seems to be more fruitful when one starts to think about the external world before considering the business's strengths and weaknesses.

The aim is to find strategies suited to the future contexts and, as shown by the ellipses, there is often some common overlap between

them.

Having a set of strategies is all very well but how can they be implemented? Can they, in fact, be implemented at all? That calls for thought about what sort of firm this is going to have to be and for that we shall use the idea of the Viable Firm, shown

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in a matrix. The idea is to 'design' a firm which can viably implement the strategies which have been identified. This new firm may be different in all sorts of ways from the present business so the question arises of whether or not it can be achieved.

The end results are that the strategies are viable, perhaps with some reservations, as shown by 'Yes, but', or that they are not viable and the template loops back to one or more earlier stages. We will now explain the techniques in more detail in the context of a real case.

11.11 The Case of Littleworth and Thrupp

The management of professional service firms—lawyers, accountants, architects, and so forth—does not seem to receive much attention in the literature (though see Maister 1993, for an illuminating discussion). In fact they offer many interesting cases for analysis and in this section we shall explore strategy formulation.

Littleworth and Thrupp (L and T) are a firm of solicitors with about ten equity partners, supported by additional qualified lawyers and other staff. They have built an enviable practice in dealing with claims arising out of motor accidents, normally working for the insurance company of either the guilty or the innocent driver. Some of their cases involve only minor damage and bruising, others are much more tragic. Resolving even a simple case can easily take a year. L and T's fees are normally recovered from the insurance company of the guilty driver.⁹

⁹ This is, of course, *heavily* adapted from a real case with a professional firm in a completely different domain. No reference is intended to any real firm of solicitors and Littleworth and Thrupp are villages near Oxford. The changes to the insurance market, described below, are entirely fictional. For the benefit of non-British readers, a solicitor in England and Wales is, so to speak, a personal lawyer. They deal with such matters as wills and property, divorce, and, as in this case, negotiation of settlements. If a settlement cannot be agreed, the solicitor may represent his clients in the lower courts. For more serious matters, a solicitor will brief a barrister, a separate discipline in British law, to appear in the higher courts. Current changes in legal processes will allow some solicitors to appear as advocates in the higher courts.

L and T have a healthy client base both from insurance companies they have represented in the past, and also those they have defeated, and from the accident victims they have successfully represented. These are often business or professional people able to commission legal work on behalf of their own firms and who may now come to L and T for such services. In general, L and T have not hitherto seen much need to seek such work though that may not be sustainable in the fairly near future.

L and T's scenario thinking has revealed a number of drivers of change and questions over the future of L and T:

- Insurance companies, concerned at the expense of dealing with these claims, may set up their own in-house legal departments to do the work—less work for L and T?

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- The insurance companies may try in-house work but fail so the market may fall and rise—volatility for L and T?
- There seems to be an increased tendency to litigiousness over matters once seen as trifling—more work for L and T?
- Increased emphasis on health and safety at work—potential work for L and T in an area not very different from their present expertise?
- The Human Rights Act of October 2000 will mean that human rights claims, such as immigration appeals, can be dealt with in Britain rather than at the European Court in Strasbourg—different work for L and T? (but an area in which they have no track record).

All told, it seems that L and T may be moving into uncharted waters and some strategic thinking may be in order. Some strategic modelling may help L and T's partners to plan their future. Four approaches will be used. None of these approaches is as simple as at first appears. In practice, they are best applied by a working team of the problem proprietors, L and T's partners in this case, with the aid of an experienced facilitator.

11.11.1 Tows Analysis

The first is TOWS; which is SWOT in an order that emphasizes the external drivers as opposed to the internal factors. L and T's TOWS matrix is in Table 11.7 and incorporates one or two factors not mentioned above. SWOT or TOWS analyses are sometimes rightly criticized because it is not always obvious what is an Opportunity and what is a Threat. Some of L and T's senior people are about to retire, is that an opportunity to bring in new blood or a threat because of the loss of experience? Is it both? As we shall see in Table 11.8

this can become a non-debate as the real power of TOWS comes out when one compares the four sets of factors, in pairs or clusters as imagination dictates.¹⁰

¹⁰ I am grateful to Lt. Col. Warwick Comer-Stone, a former student, for helping to develop this approach.

Table 11.8 is deliberately incomplete, as shown by the question marks, and the reader should work it through in more detail. It will be seen that fairly clear strategic themes emerge, such as developing other business areas, as well as some fairly specific actions such as linking with the local university. Recall, though, that there are no right answers and tables such as this are no more than aids to imagination and inspiration.

11.11.2 Viable Firm Analysis¹¹

¹¹ The author asserts his right to be recognized as the originator of this name and methodology.

It is clear that L and T might be in for turbulent times and that the form and shape, or morphology, of the firm might change. That suggests a FAR-type approach of

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Table 11.7 Stage 1 of Littleworth and Thrupp's TOWS analysis

Threats	Opportunities
T1 Pressure to reduce costs of legal work	01 Some partners and senior staff near retirement
T2 Insurance companies may move in-house	02 Solicitors now allowed to appear in higher courts
T3 Barriers to entry in other branches of legal work	03 Human Rights Act
	04 Emphasis on health and safety matters
	05 Possibly increased litigiousness
	06 Local university has strong department of law
Weaknesses	Strengths
W1 Firm has traditionally worked in one legal area	S1 Good list of clients
W2 Hard to recruit good people	S2 Recent investment in modern IT
	S3 Strong financial position

thinking about the themes in the firm and allowing for filing space for all reasonable possibilities; a Viable Firm Matrix (VFM). In this case, though, we do not aim to develop scenario time lines but to evaluate what sorts of things are possible for L and T, not only as it now is, but as it might become.¹²

¹² This kind of matrix can also be used by L and T to analyse their competitors.

The reader should study it carefully before going further. Note the acronym SLOMARC; a pronounceable but meaningless word in English but a meta-language for L and T. LAWYERS also has seven unique letters and, with some changes to the wording, might have been fitted to the column headings in Table 11.9, but would not be a good choice as it does have an English meaning.

L and T's current position is S4L203M1A4R3C3—the reader should highlight this, and other configurations, on a copy of Table 11.9—the firm is in a comfortable position, and has been for quite some time. Its equity partners are content with that position. It looks after the existing insurance company clients and occasionally takes general legal work from personal clients but more as a favour than anything else. The firm is both successful and contented.¹³

¹³ It is one of the banalities of management teaching that a firm must grow or die. A rather interesting counter-case is the Yorkshire tea-shop company Betty's Café. This has, for many years, maintained only five cafés, each with a shop selling the firm's cakes, a bakery, and a mail-order supply of teas, coffees, and so forth. Customers are prepared to queue for up to 45 minutes to get in and, though the provender is outstanding, it is not cheap. The family who own Betty's probably work hard and should have a very nice lifestyle from what must be a prosperous firm.

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Table 11.8 Stage 2 of Littleworth and Thrupp's TOWS matrix

Threats	Opportunities
T1 Pressure to reduce costs of legal work	01 Some partners and senior staff near retirement
T2 Insurance companies may move in-house	02 Solicitors now allowed to appear in higher courts
T3 Barriers to entry in other branches of legal work	03 Human Rights Act
	04 Emphasis on health and safety matters

05 Possibly increased litigiousness
 06 Local university has strong department of law

Weaknesses

	W1.T2 Aim at new areas	W3, 01 Offer promotion chances
W1 Firm has traditionally worked in one legal area	???	W1, 06 Use academic lawyers to broaden expertise
W2 Hard to recruit good people		W2, 06 Develop links with local university-offer work experience? ???

Strengths

	T1, S2, S3 Reduce fees ???	S3, 01, 05 Offer better pay and training
S1 Good list of clients		
S2 Recent investment in modern IT		S1, 04 Use client base to develop work in Health and Safety
S3 Strong financial position		???

What, however, happens if L and T have *not* done their strategic homework and the insurance companies, over the next few years, build up a substantial in-house activity and that market segment moves to L4?

One way to use the VFM is to work across the OMARC columns, bearing in mind that there is never a 'right' answer and that we are studying a case of an unanticipated change. Looking at Marketing: M2 is not feasible, as there are no longer many existing clients, M3 and M5 cannot be reached as the firm has little reputation outside accident work. They are forced back to M4. Such a firm certainly

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Table 11.9 Littleworth and Thrupp's viable firm matrix

Scope for Expansion in Other Markets	Traditional Accident Litigation Market	Practice objective and strategy	Strategic Objective	Marketing Policy	Practice characteristics	Human Resource Position	Skill and Capability Base
S	L	O	M	A	R	C	
S1 Excellent. Seen as having excellent legal expertise in a wide range of cases	L1 Increased litigiousness brings some growth in market	O1 Aim for rapid growth in size and value	M1 Concentrate on a well-established client base. Rely on reputation and contacts to bring in work	A1 One of the very few firms seen as a lawyer of first recourse for most types of problem	R1 Highly qualified people see employment with firm as a good career step. Very high quality of work. High motivation and pay	C1 Wide range of skills at cutting edge. Skill base retained by recruitment of people with those skills	
S2 Very good. Seen as having very good legal expertise in a range of niche markets	L2 Steady flow of work at about present level	O2 Aim for good growth in size and value	M2 Careful attention to existing clients, some effort at getting new ones	A2 A well-known and respected firm with a good client base in both market areas	R2 Fairly easy to recruit and retain good people. Consistently good work quality. Above average motivation and pay	C2 Planned and actively managed portfolio of skills with strong attention to training for skill development	
S3 Reasonable. Expertise acknowledged but serious competition from other firms	L3 Volatility (up and down) in frequency and volume of work for next few years	O3 Aim to remain pretty much the same size and value	M3 Constant monitoring of market to exploit established reputation	A3 Reputation and client base growing steadily but not yet in the big league	R3 Not easy to recruit and retain good people. Some variation in work quality. Average motivation and pay	C3 Consciously chosen, but limited, portfolio with recruitment of people with those skills	
S4 Limited. Some cases because of personal contacts	L4 Some use of insurance companies' in-house lawyers leads to significantly reduced level of work	O4 A smaller firm, designed to be survivable in difficult and changed circumstances	M4 Promise anything to a few existing clients	A4 Good reputation but not widely known outside its traditional market	R4 A few highly expert individuals. With good support	C4 Concentration on 1 or 2 skills areas with no skill development	
S5 Poor. Limited of insurance	L5 Widespread use of insurance	O5 Seek survival (and possibly some growth) by	M5 Actively seek	A5 One among			

legal expertise outside traditional base	companies' in-house lawyers leads to collapse of market	Some growth by merger/partnership with complementary firm	clients in a selected range of legal fields	many small firms of reasonable quality	R5 Filling slots with warm bodies
		O6 Struggle to save the firm		A6 A doubtful quantity which may not last much longer	

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cannot grow and even O3 will be unlikely to be attainable so the best case is likely to be O4, or even worse. A firm which is trying to survive will not do well in recruitment, reputation, or skills so the end result is likely to be a swift transition to S5L5O4M4A6R5C4.

Let us now suppose that L and T have thought ahead about the prospects of L4, L3, or even L5? They now use the VFM in a different way. S3 will not help them withstand the diminution of their existing business. S1 is not attainable (in the near term), so S2 has to be the objective. To do that requires R2 and C2, which are things the firm can change, and which will allow a combination of M5 and A2 to be realized. That combination would require O2 in order to make R2 really feasible by attracting good people to a firm with a future. It may be fortunate that some of the existing equity partners are about to retire which both makes space for new people and removes the obstacle of the established view of the firm.

The end result is an intended strategy of moving to the viable position of S2L4O2M5A2R2C2. In such a case, if L stays at 1 or 2, there is no detriment to L and T, though they dare not risk the firm on that hope. However, intending and achieving are two different things so it is now necessary to study the gaps between the current state and this ideal and see what has to be done to remedy them. This leads to a *resource analysis*.

11.11.3 L and T's Resource Analysis Matrix

The idea of resource analysis is very simple and is shown in Table 11.10. One simply uses the VFM descriptors as column headings and makes rough assessments of the firm's present and required capabilities; a four-point scale is useful. In the first row, for example, the 2 under From means that the firm is only fair; numbers are too small and pressure of work is too high. To get from C3 to C2 would call for an improvement to 3; numbers need to be increased a little and pressure of work reduced to allow for the skill development. Similarly, in the second row, there needs to be a significant improvement in the range of legal skills which individuals at L and T should be able to practise. Attempts to be more precise, such as 3.5, are futile. The total of 23 gap points is not significant in itself, apart from reflecting the fact that there are ten areas which call for appreciable improvement. Before deciding that this is an impossible task, L and T's principals study the forces at work in the firm which might inhibit improvement and the possible countervailing effects.

11.11.4 Force Field Analysis

An illustrative Force Field Analysis (FFA) for L and T is shown in Figure 11.6. The vertical scale is labelled with the current state and the target to be achieved,

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Table 11.10 Littleworth and Thrupp's resource analysis

Sector	Sub-category	From	To	Gaps
		C3 Consciously chosen, but limited, portfolio with recruitment of people with those skills	C2 <i>Planned and managed portfolio of skills with strong attention to training for skill development</i>	
C Skills and Capabilities	Numbers and pressure of work	2	3	1
	Individuals' range of	2	4	2

	skills	-	.	-
	Training effort	1	3	2
	Equipment	3	3	0
	Buildings and facilities	3	3	0
	Effectiveness of principals' time management	2	4	2
	Support systems	2	4	2
	R3 Not easy to recruit and retain good people		R2 Fairly easy to recruit and retain good people.	
	Some variation in work quality. Average motivation and pay		Consistently good work quality. Above average motivation and pay	
R Human Resources	Recruitment techniques	2	4	2
	Work quality and consistency	2	3	1
	Pay and conditions	2	3	1
	A4 Good reputation but not yet widely known outside its traditional market		A2 A well-known and respected firm with a good client base in both market areas	
A Attitude and Reputation	Corporate visibility	1	3	2
	Internal culture	2	4	2
	M1 Concentrate on a well-established client base. Rely on reputation and contacts to bring in work		M5 Actively seek clients in a selected range of legal fields	
M Marketing	Contact list	2	4	2
	Marketing staff	1	3	2
	Marketing skills	1	3	2
	Promotional techniques	2	3	1
NET				
EFFECT OF GAPS				23

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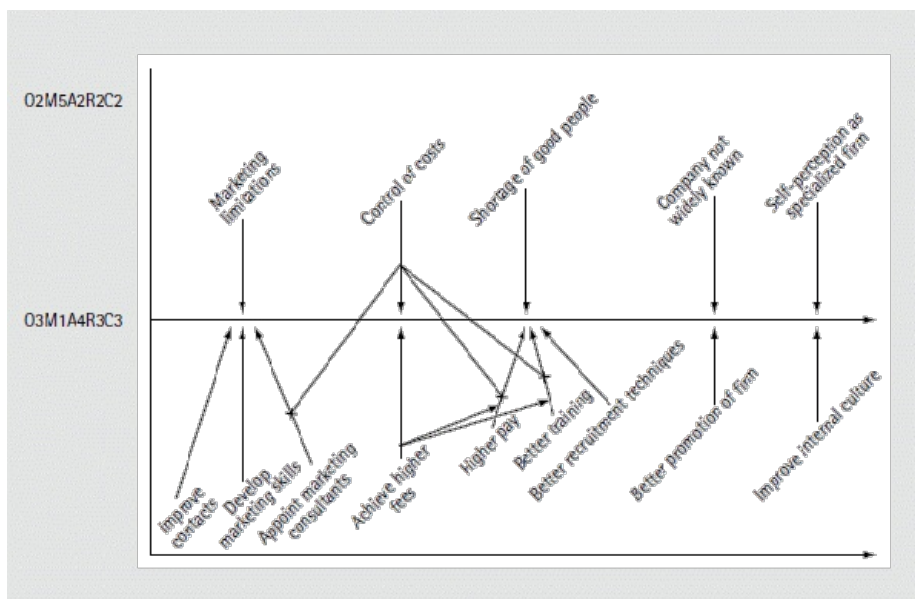


Fig. 11.6 Littleworth and Thrupp's force field analysis

the distance between the two labels being a symbolic indicator of what has to be achieved. The horizontal scale simply gives space for the downward forces of inhibitors and the upward direction of actuators. For example, the diagram suggests that the marketing limitations might be overcome by three approaches. The self-perception inhibitor requires an improvement to internal culture.

Diagonal arrows suggest that achieving higher fees (fee levels are much higher in, for instance, commercial law than in accident negotiations) would simultaneously support higher pay and better training. The inhibitor of the need to control costs, which is a natural reaction in a firm under pressure, has crosses on its divergent arrows to show that they might prevent actuators from operating. Arrows can be drawn with thicker lines to show strong effects. Above all, this method calls for imagination, brainstorming, and challenges to the organization's received wisdom.

Cost control seems to be a fairly critical factor but L and T were described as having good financial reserves. Should they now spend that money to achieve a bright new future, and let costs be less of a determinant, or should the partners liquidate their equity and retire? Is there an alternative—let some partners retire with their equity share, recruit some fresh people with different expertise and balance the firm between making the insurance work generate cash and using

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that to develop a new practice? Is there still another alternative? What does resource analysis and FFA reveal about their feasibility? This is where the power of imagination and the discipline of scenario thinking and strategic modelling can come together to generate a robust future for Littleworth and Thrupp.

These questions are the crux of this firm's strategy. Because they involve personal choices and values, no amount of scenario thinking or strategic modelling will resolve them. Much the same is true in almost all really strategic choices. The futures approaches, however, enabled the final form of the problem to be seen and the argument is traceable and can be challenged and revised if necessary.

None of this is rocket science and, like any simple method, the results look very obvious afterwards. Doing it in practice is sometimes rather more mind-bending than it seems when it is written down.¹⁴

¹⁴ This material is difficult to teach by lectures alone as most of it is very easy to explain. It is most effectively dealt with by having students work in syndicates taking a problem right through all its stages, reporting back to other syndicates as they go (there are several more strategic analysis techniques but space limitations preclude a full discussion).

11.12 Research Topics in Futures Studies

Futures studies have been in use for countless generations, even back to the Delphic oracle. Often they were practised as prediction but even in the more responsible form of forecasting they have a fifty-year history. Despite that, there is little agreement on principles and techniques and the field has not yet achieved the maturity of standard textbooks and widespread teaching in universities which has been

reached by, say, operational research. The field has been largely shaped by some influential and highly innovative practitioners and may now be ripe for research-based development.

All the methods of scenario thinking and strategic modelling have strengths and weaknesses and the reader should now go back to the beginning of Section 11.5 and make his or her own assessment. That should suggest several research topics which might usefully be undertaken. Successful completion of those might, in turn, start to provide the basis from which a set of techniques and styles might turn into a discipline, reliant as ever on imagination, but likely to give results which are more clearly based on rigorous and accepted practice. Some truly imaginative research might be needed and some of the questions might be:

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- The most general question is whether one could find some generally accepted format in which scenarios and forecasts should be published.
- Narrative analyses have, as we argued, the strength of deep study and the weaknesses of leading only to one conclusion and the possibility of 'error' part way through. Is there some 'standard' form in which narratives might be written which would maximize the value and minimize the limitations of the method?
- The intuitive logic approach described earlier makes much use of data to detect trends and uncertainties. The data might be numerical statistics or, more usefully perhaps, text in the form of reports, newspaper articles, and the like. What types of database might most usefully be employed to sift this information? This is nothing to do with econometrics, it might be more akin to the analysis of textual material in linguistics or literary analysis.¹⁵

¹⁵ Is this similar to classical scholarship to detect from the nuances of style whether or not Homer's *Iliad* was written by Homer or by another Greek of the same name?

Police forces use large computer systems to analyse the statements of witnesses in major investigations; is that a fruitful line of thought?

- The morphological approaches of von Reibnitz, Rhyne, and this writer have much in common but also some differences. Is there a synthesis?
- Is there a better way than mind maps for teasing out sectors and factors to construct morphological matrices?
- How can one justify other than on the basis of 'it seems to fit' the development of scenario sequences in FAR?
- Are there better ways of doing strategic modelling than TOWS, VFM, resource analysis, and force field analysis?

The postgraduate student should think of, say, five other research questions, but there is no doubt that futures studies is a gold mine for MBA dissertations and PhD theses. The MBA student, or those undertaking similar projects, often works closely with an organization. While the details may be confidential, effort should be devoted to publishing a sanitized version of the work.

11.13 Summary: The Art of the Long View

We have examined several aspects of futures studies and strategic modelling. Not all material could be covered, though Coyle (1997) has described other approaches.

The essence of the matter is that human decisions have long-lasting effects. To give but one example, the decision by the then British government to set up a National Health Service which was universal and free at the point of use has had

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dramatic effects on the health of the British people and on their expectations and attitudes. When the NHS was founded in 1947 the following statements were true: medicine was simple and cheap, people were exhausted by war, poor, deferential, and grateful for what they received, the word of doctors and matrons was law.¹⁶

¹⁶ Matron, always a woman, was the chief nurse in a hospital and was a figure of great authority before whom even consultant surgeons trembled. The post of Matron no longer exists.

Fifty-odd years later none of those things is true.

In short, the uncertainties of technology, society, or politics call for one to rehearse the future so that choices can be more robust against its vagaries. To be sure, no one can predict, and forecasts cannot be accurate, especially if they become self-negating, but the underlying assumption of the whole effort is that one would be imprudent not even to try to think intelligently about the unknowable future and to practise the art of the long view.

That art is, however, fundamentally one of thought and imagination and does not lend itself to mathematical treatment. Such qualitative analysis seems to be highly speculative and difficult to justify. To an extent, that is the case, though the element of speculation is

decreased by the use of good documentation and clear audit trails, such as in FAR. The results can be explained, justified, and, as better insights emerge, they can be improved and become more acceptable to sceptical policy-makers and traditional analysts. Perhaps the intellectual and pragmatic bases for these approaches can be summarized in three points:

1. The consequences of policies and decisions can be very long-term and the uncertainties of the future in which they will have to fly can be so severe that a policy-maker would be imprudent to the point of recklessness not even to try to rehearse the future.
2. It is not required that one forecast be more probable than another—the members of a set of scenarios should be comparably plausible—still less that it be ‘right’. The value of scenarios is whether or not they make people think more deeply so as either to justify or modify their decisions.
3. The qualitative nature of the scenario process is not because we are not smart enough to think of mathematical ways of building scenarios. It is because all the truly important problems are so hard (difficult) that they can only be addressed by ‘soft’ methods which stimulate creative thought.

The final word is that strategic thinking is, as we have repeatedly remarked, *fundamentally* an act of imagination and vision. Gait et al. (1997) use the striking phrase ‘an intense exercise of imagination and judgement’. These tools and techniques are, therefore, no more than aids to imagination. They are a guard against ODIDTOT, which is the strategist’s nightmare—‘Oh Dear (or other expletive), I Didn’t Think Of That’.

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11.13 Monitoring events

The futures literature is voluminous and expanding rapidly. Even as this page was written, *The Sunday Telegraph* magazine section for 2 January 2000 carried an article entitled ‘The Shape of Things to Come’, including a contribution by Schwartz, whose scenario text was cited earlier. Keeping up with such a volume of output is nigh impossible but the student of the future needs to try.

However, reading scenarios which others have written is only part of the story and it is also necessary to try to monitor driving forces which might affect the field for which one is trying to forecast. Schwartz (1996) coins the delightful phrase ‘information hunting and gathering’ and devotes forty pages to describing what he monitors.

Few may have the time to emulate him but one excellent source is *The Economist* for its coverage of politics, science, business, and world affairs. A related source is the same publication’s annual series, the latest being *The World in 2000*. The academic literature appears in *Futures*, the new journal, *Foresight*, and others such as *Technological Forecasting and Social Change*.

A deeper understanding of the art of the long view is given by some of the sources cited here. If one were to choose only a few, one would be Macrae’s *World in 2020*, not so much for what it says but for the style of the narrative form. The scenario writers are Schwartz, van der Heijden, and Ringland. All three of these are valuable but, if only one can be read, it is a matter of tossing a coin and one cannot recommend one above the others.

References

Adams, J. (1998). *The Next World War*. London: Random House Publishers.

Berry, A. (1995). *The Next 500 Years: Life in the Coming Millennium*. London: Headline Book Publishing.

Buzan, T. (1993). *The Mind Map Book*. London: BBC Books.

Coyle, R. G. (1996). *System Dynamics Modelling: A Practical Approach*. London: Chapman and Hall/CRC Press.

— (1997). ‘The Nature and Value of Futures Studies’. *Futures*, 29/1: 77–93. 

— (forthcoming), *Tools for Strategic Thought*.

— and McGlone, G. (1995). ‘Projecting Scenarios for South-east Asia and the South-West Pacific’. *Futures*, 26/1: 65–79. 

— and Yong, Y. C. (1996). ‘A Scenario Projection for the South China Sea’. *Futures*, 28/3: 269–83.

Ferguson, N. (ed.) (1997). *Virtual History: Alternatives and Counterfactuals*. London: Picador Press.

end p.348

- Friedman, G., and Lebard, M. (1991). *The Coming War with Japan*. New York: St Martin's Press.
- Galt, M., Chicoine-Piper, G., Chicoine-Piper, N., Hodgson, A. (1997). *Idon Scenario Thinking*. Pitlochry, Perthshire: Idon Ltd.
- Glenn, J. (ed.) (1999). *Futures Research Methodology*, CD ROM. Washington, DC: American Council for the United Nations University.
- Gribbin, J. (ed.) (1998). *The Future Now: Predicting the 21st Century*. London: Weidenfeld and Nicolson.
- Huntington, S. P. (1997). *The Clash of Civilisations and the Remaking of World Order*. London: Simon and Schuster UK Ltd.
- Jones, H., and Twiss, B. (1978). *Forecasting Technology for Planning Decisions*. London and Basingstoke: Macmillan Press.
- Kennedy, P. (1993). *Preparing for the 21st Century*. London: HarperCollins Publishers.
- Loveridge, D., Georghiou, L., and Nedeva, M. (1995). *United Kingdom Technology Foresight Programme Delphi Survey*. Manchester: Policy Research in Engineering Science and Technology, University of Manchester.
- Macrae, H. (1994). *The World in 2020*. London: HarperCollins Publishers.
- Maister, D. H. (1993). *Managing the Professional Service Firm*. New York: Free Press Paperbacks.
- Meadows, D. H., et al. (1972). *The Limits to Growth* (UK edn). London: Earth Island Press.
- Powell, J., and Coyle, R. G. (1997). 'A Network-Based Approach to Strategic Business Planning'. *Journal of the Operational Research Society*, 48: 367–82.
- Rhyne, R. (1981). 'Whole-Pattern Futures Projection Using Field Anomaly Relaxation'. *Technological Forecasting and Social Change*, 19: 331–60. [Link](#)
- (1995a). 'Field Anomaly Relaxation: The Arts of Usage'. *Futures*, 27/6: 657–74. [Link](#)
- (1995b). *Evaluating Alternative Indonesian Sea-Sovereignty Systems*. Linthicum, Md.: Institute for Operations Research and the Management Sciences.
- Ringland, G. (1998). *Scenario Planning: Managing for the Future*. Chichester: John Wiley and Sons.
- Schwartz, P. (1996). *The Art of the Long View*. Chichester: John Wiley and Sons.
- van der Heijden, K. (1996). *Scenarios: The Art of Strategic Conversation*. Chichester: John Wiley and Sons.
- von Reibnitz, Ute (1988). *Scenario Techniques*. Hamburg: McGraw-Hill Book Company (translation from German). Only available from the author at 1842, Ave. des Templiers, F 06140 Vence, France.
- Wood, W. C., and Christakis, A. N. (1984). 'A Methodology for Conducting Futures-Oriented Workshops'. *Technological Forecasting and Social Change*, 26: 281–97. [Link](#)
- Yergin, D., and Gustafson, T. (1994). *Russia 2010 and What It Means for the World*. London: Nicholas Brealey Publishing.

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12 Analyzing Internal and Competitor Competences

Resources, Capabilities, and Management Processes

Ron Sanchez

12.1 The Concept of Competence in Contemporary Strategic Management

The objectives of this chapter are to explain the concept of organizational competences and its central role in contemporary strategic thinking about how a firm creates competitive advantages, to clarify the strategic roles of resources, capabilities, and management processes in creating organizational competences and competitive advantages, and to explain the essential aspects of a competence framework for the strategic analysis of organizations.

The emergence of the field of strategic management in the last decades of the twentieth century may be broadly divided into two major periods of development of foundational concepts and theory. Both periods of development have tried to

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contribute to answering the central concern of strategic management, which is understanding how a firm might achieve competitive advantage in its industry. The 1960s to mid-1980s witnessed the adoption of many ideas from industrial economics and game theory that greatly influence the way we think about the structure of industries and how the competitive positions of firms within an industry may result in competitive advantages for some firms. These economic perspectives, useful as they are for describing and analyzing competitive conditions at the *industry* level, nevertheless do not explain what goes on inside the 'black box' of each firm as it tries to identify and respond to opportunities to create competitive advantage in its industry. Beginning in the mid-1980s, a new stream of thinking in strategic management sought to open the 'black box' of the firm, to investigate what distinguishes firms internally from each other, and to understand why some firms manage to achieve competitive advantages in an industry while others fail to do so. This more internal perspective on the competitive interactions of firms has evolved into what we now call the *competence perspective* on strategic management.

Our discussion below of the internal analysis of firms generally follows the historical path of evolution of the central ideas that have shaped the way we now think about the sources of any competitive advantages that a firm may create. The first step in this evolution was the emergence in the mid-1980s of ideas about a firm's *resources* as potential sources of competitive advantage. This perspective was joined in the late 1980s by the recognition that the dynamic nature of a firm's *capabilities* may also be a source of competitive advantage. In the mid-1990s, insights into the essential role of a firm's *management processes* in creating, organizing, and directing its resources and capabilities added the third essential element in today's competence perspective on how firms achieve competitive advantage. Accordingly, our discussion of the competence perspective on the internal analysis of firms is organized in the following way.

Section 12.2 discusses *resources* as a concept for describing and analyzing firms in their competitive environments. We examine the characteristics of strategically important resources and the essential role that such resources play in achieving a sustained competitive advantage. A checklist for identifying and analyzing strategic resources summarizes the main insights into competitive advantage provided by the resource perspective. We also consider, however, why an internal analysis that focuses *only* on a firm's resources can never provide adequate basis for explaining or predicting the achievement of competitive advantage by a firm.

Section 12.3 examines the central ideas in strategic thinking about organizational *capabilities* as sources of competitive advantage. We consider the strategic importance of learning dynamics in processes of resource creation and use within organizations, and why learning dynamics that drive the creation of organizational capabilities may lead to the creation of sustained competitive advantage. We also caution that in analyzing a firm, not all organizational capabilities that may be identified within a firm should be regarded as potential sources of competitive

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advantage, because a firm's 'core capabilities' may also become 'core rigidities' that limit a firm's ability to create or maintain competitive advantage.

Section 12.4 discusses the analysis of the *management processes* an organization uses to identify, acquire, deploy, coordinate, maintain, and retire resources and capabilities. We explain why the internal strategic analysis of a firm would be incomplete without careful consideration of the management processes through which resources and capabilities must be transformed into competitive advantages.

In Section 12.5 we build on insights from our discussions of resources, dynamic capabilities, and management processes to complete a

competence framework for strategically analyzing organizations. The competence framework adds important *dynamic*, *systemic*, *cognitive*, and *holistic* dimensions of an organization that are essential to understanding how an organization creates and sustains competences and competitive advantages.

12.2 Resources in the Analysis of Firms

Strategic management's interest in understanding the role a firm's resources in achieving competitive advantages is rooted in the work of English economist Edith Penrose (1959), whose research focused on understanding the factors that determine how firms grow. Drawing on her observations of British firms in the 1950s, Penrose proposed that the availability of 'slack' physical and human resources within a firm stimulates a search by managers for opportunities to use available resources to expand a firm's activities. Penrose's interest in strategic uses of a firm's resources was revived in the 1980s by Birger Wernerfelt (1984), who was specifically interested in understanding the role that a firm's resources play in creating competitive advantage. Wernerfelt proposed that a firm that is a first mover in creating and using a given resource may achieve lower costs as it develops experience in using the resource more and more efficiently. Wernerfelt argued that the higher costs faced by firms acquiring and using a given resource for the first time (compared to the costs of the first mover in using the resource) create a *resource position barrier* that may give the first mover a sustained cost advantage in the use of that resource. Wernerfelt used the term *attractive resources* to refer to resources whose repeated use leads to lower costs (i.e. learning curve effects) because they are 'types of resources that can lead to high profits'.

Wernerfelt also proposed that resources play a critical role in strategies to create competitive advantage through diversification. When a firm can combine its current attractive resources in which it enjoys cost advantages with some new

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resources essential for competing in a new product market (e.g. distribution channels or brands), the firm may be able to extend its current cost advantages and resource position barrier to new product markets. Arguing that markets for attractive resources are imperfect because attractive resources become 'tied semi-permanently to the firm', Wernerfelt suggested that firms pursue mergers and acquisitions as means to acquire new attractive resources and to create new competitive advantage through new combinations of attractive resources that enjoy cost advantages.

Following on Wernerfelt's analysis, Jay Barney (1986, 1991) introduced a broad concept of firm resources that includes 'all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness' (Barney 1991:100). Barney also described resources as consisting of *physical capital* resources, *human capital* resources, and *organizational capital* resources. According to Barney, achieving a sustained competitive advantage requires the implementation of a 'value creating strategy' that cannot be implemented by current or potential competitors and whose strategic benefits cannot be duplicated by other firms. Arguing that no firm could implement a strategy that would lead to a sustained competitive advantage in an industry with 'homogeneous and perfectly mobile resources', Barney reasoned that only *heterogeneous and imperfectly mobile resources* can serve as the basis for a sustained competitive advantage.

In Barney's analysis, a firm's resources must meet four conditions to be considered heterogeneous and imperfectly mobile and thus a source of sustained competitive advantage.

1. Firm resources must be *valuable*; or more precisely, resources must be strategically useful in the sense that they can be used to exploit opportunities or neutralize competitive threats.
2. Firm resources must be *rare*, in the sense that they are not commonly possessed by competing or potentially competing firms.
3. Firm resources must be *imperfectly imitable* by competitors or would-be competitors. Imperfect imitability can result when firm resources have been created or acquired through unique historical conditions, when competing firms cannot understand how a firm's resources can be used to create competitive advantage, or when the use of a resource occurs in a context of 'social complexity' that competing firms cannot replicate.
4. A firm's resources must not be *substitutable*, in the sense that no equivalent valuable (useful), rare, and imperfectly imitable resources are available and can be used in lieu of the firm's resources.

Based on this analysis, Barney concludes that a firm's current endowments of such heterogeneous and imperfectly mobile resources determine its potential to achieve sustained competitive advantage.

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The implications of imperfect markets for strategically important resources were further studied by Ingmar Dierickx and Karel Cool (1989), who investigated ways in which the dynamic properties of processes of firms for building up certain kinds of resources may affect the 'rent earning potential' of those resources. Referring to a firm's processes of acquiring resource endowments as *asset stock accumulation*,

Dierickx and Cool identified four dynamic properties of asset stock accumulation that prevent competitors from perfectly and immediately replicating a firm's endowment of certain resources.

1. *Time compression diseconomies* create higher costs of acquiring certain kinds of resources for competitors who try to quickly replicate a firm's stock of those resources. In essence, time compression diseconomies occur when hurrying to put certain kinds of important resources in place raises the unit costs of building up those resources. Increasing the rate of investment in research and development, for example, may lead to higher unit costs in building up technology resources and thus to lower returns once those resources are in place. A firm that already has stocks of resources in place that are subject to time compression diseconomies will therefore enjoy a competitive advantage compared to competitors who face higher costs if they must move quickly to build up those resources.
2. *Asset mass efficiencies* make processes for increasing stocks of certain assets more efficient as the current stock of that asset increases. In other words, acquiring more of certain kinds of assets costs less (per unit acquired) when a firm already has a large stock of those assets in place. Asset mass efficiencies largely result from two effects: (i) already having some of a resource may make it easier to recognize, acquire, or develop more of the resource, and (ii) it may be easier to integrate more of a resource into a firm once the firm is already using the resource. As an illustration of the first effect, a firm that already has an internal technology resource may be better able to identify and respond to opportunities to develop the technology further than a firm that currently lacks the technology. The second effect is evident when, for example, a firm with a large distribution infrastructure already in place in a given area enjoys lower incremental costs of adding new dealers than would a firm that currently lacks significant distribution infrastructure in the same area.
3. *Asset stock interconnectedness* reduces the difficulty of increasing the stock of certain assets when stocks of other assets are already significant. A firm that has many loyal customers willing to offer suggestions for extending its product lines, for example, may be better able to identify opportunities to increase its stock of new products it offers than firms with low stocks of customer loyalty.
4. *Causal ambiguity* in asset stock accumulation results when it is not clear—perhaps even to a firm that has already built up a stock of a certain resource—what steps must be followed to increase the stock of that resource. It is unlikely to be evident to competitors, for example, exactly how an innovative firm goes about

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12 Analyzing Internal and Competitor Competences

increasing its stock of creative ideas for successful new products. When a firm already has an effective process of resource accumulation in place, causal ambiguity about exactly how that process works can make it difficult or impossible for competitors to identify and replicate the firm's process of resource creation. However, when causal ambiguity also exists within a firm that has been successful in building up its stock of an important resource—i.e. the firm's managers are not sure how the build up of the resource was accomplished—causal ambiguity may serve to limit the ability of the firm to build up additional stocks of the resource.

Systems perspectives on resources (Sanchez and Heene 1996; Morecroft, Sanchez, and Heene 2001) suggest some further properties of resources that affect their potential to contribute to the creation of competitive advantage. A systems perspective on resources recognizes that resources are normally *embedded* in a system that includes other resources and that the contribution of a resource to the creation of value depends on the other resources in the system in which it is used. Thus, the embeddedness of a resource may either help or hinder the realization of the potential of the resource to contribute to creating strategic advantage. Further, the ability to use a given resource in a system of use will vary directly with *the supply* of complementary resources in the system.

In addition, although resources that are rare, hard to imitate, and non-substitutable may contribute to creation of competitive advantage, some resources that are commonly available, not hard to imitate, and perhaps substitutable may also play a necessary role in achieving competitive advantage. Resources that enable a firm to connect to networks and that thereby enable a firm to capture network externalities may make an important—perhaps even necessary—contribution to achieving competitive advantage. For example, the resources needed to make or use products that can connect to telecommunication networks (the Internet, phone systems) may not be rare or difficult to imitate, but they may be essential to obtaining the network benefits of rapid global communication that may be crucial to creating and maintaining a competitive advantage.

The foregoing concepts have laid the foundation for our current understanding of the characteristics of strategically important resources and of the ways in which those resources can contribute to creating and sustaining competitive advantage. Table 12.1 summarizes these ideas in a checklist for identifying strategically important resources in firms. In using this checklist of strategic resource characteristics, however, it is important to remember that mere possession of strategic resources cannot be a source of competitive advantage. Only the *effective use* of strategic resources can create a competitive advantage. This essential requirement for creating competitive advantage brings us to our next perspective on the internal analysis of firms—the need to understand the *capabilities* of firms in using their resources.

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Table 12.1 Characteristics of resources that are important in creating and sustaining competitive advantage

Resources characteristics	Examples
<ul style="list-style-type: none">Resources whose repeated use can lead to <i>learning curve economies</i> (i.e. unit costs that fall with increasing experience)	Production systems
<ul style="list-style-type: none">Resources that can be combined with other resources to achieve reduced costs in new activities (i.e. through <i>diversification</i>)	Efficient distribution systems that can be used to distribute new kinds of products
<ul style="list-style-type: none">Resources that are <i>strategically useful, imperfectly imitable, and non-substitutable</i>	Well-known and respected brands
<ul style="list-style-type: none">Resources subject to <i>time-compression diseconomies</i> (i.e. costs of resource acquisition that increase with the speed of resource accumulation)	Technologies, brand awareness
<ul style="list-style-type: none">Resources subject to <i>asset mass efficiencies</i> (i.e. costs of resource acquisition that fall with increasing stocks of the resource)	Adding more dealers to an existing distribution infrastructure, brand leveraging
<ul style="list-style-type: none">Resources subject to <i>asset interconnectedness</i> (i.e. difficulty of resource acquisition is reduced because of presence of stocks of other resources)	Loyal customers help to identify new product opportunities
<ul style="list-style-type: none">Resources whose use is subject to <i>causal ambiguity</i> (i.e. best methods for effective use of resource are difficult or impossible to discover)	Innovation processes
<ul style="list-style-type: none">Resources whose effective use depends greatly on their <i>embeddedness</i> (i.e. effective resource use depends on relationships which other resources)	High-quality in products depends on system of resources working together
<ul style="list-style-type: none">Resources whose value is enhanced by <i>availability of complementary resources</i>	Maintaining market position depends on continuing supply of materials for production
<ul style="list-style-type: none">Resources that enable a firm to capture benefits of <i>network externalities</i>	Standard interconnect protocols in telecommunications networks

end p.356

12.3 Capabilities in the Analysis of Firms

Paralleling the development of ideas about resources in the 1980s was an effort to understand the role of firm *capabilities* as potential sources of competitive advantage. A number of ideas emerged in the late 1980s and early 1990s that began to shed light on the strategic importance of firms' relative capabilities in *creating* new resources, capabilities in achieving proficiency in *using* current resources, and capabilities in *devising new uses* for the resources that a firm currently has or can acquire.

After investigating processes that led to innovations in some large firms, Richard Nelson and Sidney Winter (1982) proposed that a firm's capabilities become embodied in *organizational routines*—the repeated patterns of activity that a firm adopts in its use of certain resources. Nelson and Winter also argued that an organization's learning occurs mostly within its existing routines and becomes largely focused on improving existing routines. Thus, a firm's current routinebased capabilities establish boundaries for most of the firm's learning processes and create *natural trajectories* of capability development within a firm.

A firm's ability to 'integrate, build, and reconfigure' the organizational routines that embody capabilities was studied by David Teece, Gary Pisano, and Amy Shuen (1990, 1997), who investigated how organizational processes of 'coordination and integration' and 'reconfiguration and transformation' of resources lead to the development of capabilities within firms. They argued that creating new capabilities requires building on experience gained in using existing capabilities—and therefore that a firm's current capabilities create *path dependencies* that constrain a firm's ability to change its capabilities in the near term. A firm's current routine-based capabilities, in effect, limit the firm's ability to create new capabilities and new routines—a view that reflects Nelson and Winter's notion of 'natural trajectories' that constrain the development of new capabilities. Teece, Pisano, and Shuen further point out that path dependencies in capability development make it possible for capabilities to be sources of competitive advantage, because path dependencies limit the ability of competing firms to replicate a successful firm's current capabilities.

An important cautionary note about path dependencies as sources of competitive advantage was raised by Dorothy Leonard-Barton (1992), who pointed out that path dependencies may also lead to longer term competitive *disadvantage* for firms that currently enjoy a competitive advantage because of their existing capabilities. Because firms can often reap immediate economic gains by becoming more proficient in using their existing capabilities, and because it is easier for firms to build new capabilities that are directly supported by their existing capabilities, what

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might be taken to be 'core capabilities' of a firm may also become 'core rigidities' that limit a firm's ability to develop significantly different kinds of capabilities. Whether a specific organizational capability of a firm is a source of advantage or disadvantage in the long run depends on the nature and rate of change in the strategic environment of the firm. Deep expertise in a given capability may become a source of disadvantage if a significant change in the environment obsoletes the strategic usefulness of that capability.

Rafael Amit and Paul Schoemaker (1993) used the term *strategic assets* to refer to 'the set of difficult to trade and imitate, scarce, appropriable, and specialized resources and capabilities that bestow a firm's competitive advantage'. They proposed that specific strategic

assets will be difficult or impossible to obtain at various points in time—i.e. there will be failures to form efficient markets to supply those assets. Amit and Schoemaker argued that strategic assets currently subject to market failures will be 'prime determinants of organizational rents' in an industry. *Organizational rents* refer to the economic profits that can be captured by an organization through its use of a resource or capability.

Organizational rents result when a firm can use a resource or capability to create value that is greater than the price demanded by the provider of the resource or capability. Amit and Schoemaker cautioned, however, that the strategic assets that allow the creation of organizational rents 'change and cannot be predicted with certainty' in an industry. Amit and Schoemaker observed that the inability to predict which strategic assets will be capable of generating organizational rents in the future, combined with the need to start developing today the strategic assets that will be needed in the future, leads to uncertainty, complexity, and social conflict in a firm's managerial processes. Managers in firms must therefore develop mutually acceptable processes for identifying possible futures (e.g. scenarios), for assessing which kinds of assets may become strategic assets in alternative futures, and for mediating organizational inertia and disputes when a firm seeks to change its set of strategic assets. Thus, Amit and Schoemaker established that the development of new resources and capabilities within a firm depends on cognitive and social processes in managerial decision-making—a perspective on the importance of management processes in developing firm resources and capabilities that we will elaborate in the next section.

The issue of organizational capabilities addressed by Amit and Schoemaker has been elaborated by researchers in the competence perspective (discussed further below), who have suggested a useful distinction between *skills*, *capabilities*, and *competences* in organizations. In the vocabulary of the competence perspective, *skills* are the abilities of individuals to perform specific tasks, *capabilities* are repeatable patterns of action that groups can perform in using resources and skills, and *competences* are the abilities of an organization to deploy and coordinate its capabilities in pursuing its goals. This hierarchy of abilities helps to clarify at what level of an organization a key ability exists, as well as to suggest the likely degree of

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complexity of the processes from which a given organizational ability is derived. The sustainability of a firm's competitive advantage is less certain when skills held by a few key individuals are critical to the competitive advantage of the firm, because key individuals can leave a firm. When competitive advantages are derived from capabilities of groups and from competences of the whole organization, the internal sustainability of a competitive advantage is comparatively much greater.

In the internal analysis of firms, the capabilities perspective helps us to identify the characteristics of the strategically important capabilities through which organizations develop and use resources to create competitive advantage. Table 12.2 summarizes the insights provided by the capabilities perspective in the form of a checklist for identifying and analyzing the strategically important capabilities of firms.

12.4 Management Processes in the Analysis of Firms

The resources and capabilities that a firm has available to it at any point in time depend directly on the specific *management processes* the firm uses to identify, acquire, use, and improve strategically important resources and capabilities. In dynamic competitive environments in which technological and market opportunities and threats are changing, an internal analysis that looks only at *current* stocks of a firm's resources and capabilities will not develop insights into the sustainability of any competitive advantages a firm may have. In dynamic environments, internal analysis of firms must include analysis of a firm's management processes that determine today the resources and capabilities the firm will have at its disposal tomorrow. Understanding how management processes select, develop, and use resources and capabilities is a central interest of the *competence perspective* in strategic management.

The competence perspective emerged in the 1990s as an approach for describing, analyzing, and managing the complex interplay of resources, capabilities, management processes, managerial cognitions, and economic and social interactions within and between firms that result in competitive advantage. Development of this integrative and essentially organizational perspective was originally stimulated by C. K. Prahalad and Gary Hamel's (1990, 1993) ideas about the 'core competences' of firms as the fundamental sources of competitive advantage. Based on their analysis of globally successful companies, Prahalad and Hamel proposed some characteristics of an organization's 'core competences' that began to suggest

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Table 12.2 Characteristics of capabilities that are important in creating and sustaining competitive advantage

Capability characteristics	Examples
• A <i>natural trajectory</i> of capability development already exists	

... natural trajectory of capability development already exists within an organization's current routines (i.e. an organization has already 'learned how to learn' to make its routines better)

- A capability is subject to important *path dependencies* (i.e. only firms that go through certain processes can create the capability)
- A capability is *not* becoming a *core rigidity* (i.e. the organization is still capable of changing its capabilities)
- A capability can generate *organizational rents* through resource use (i.e. the organization can use its capability to create value in excess of the costs of the resources it uses)
- An organization's ability does not depend just on skills of individuals, but on *capabilities of work groups* and/or on *competences of the organization* as a whole

A firm has established quality circles and *kaizen* processes that steadily improve the quality of its production activities

A firm has discovered the concerns that a large customer (for market segment) is most sensitive to and has learned to address those concerns effectively

A firm with current capabilities in print advertising is learning how to advertise effectively on the Internet

A consulting engineering firm knows how to select, subcontract, and organize other engineering firms in profitably performing large engineering projects

A talented creative director of an advertising firm may leave the firm, but the capabilities of the firm in managing promotional campaigns results from the skills of many people coordinated through supporting firm system

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some key aspects of the role that management processes play in creating core competences and achieving competitive advantage.

1. Core competences are derived from *sets of interrelated capabilities* that can be used in a number of products or businesses. Thus, a firm's management processes must be able to achieve an effective *integration* of the resources and capabilities available to the firm.
2. Core competences are fundamental organizational abilities that change more slowly than the products they make possible. In effect, a firm's management processes must be able to *detect and develop* fundamental technological, marketing, and other capabilities that can be used to provide a changing array of products to markets.

Building on these ideas, a general concept of organizational *competence* was developed in the 1990s. In this competence-based perspective on strategic management, competence is defined as 'the ability of a firm to sustain coordinated deployments of resources and capabilities in ways that enable a firm to achieve its goals' (Sanchez, Heene, and Thomas 1996). Extending the Prahalad and Hamel view that competition in product markets is only an expression of the more fundamental competition between firms to develop competences, the competence perspective in the 1990s focused on deepening our understanding of the management processes that initiate, direct, and support organizational processes for setting strategic goals and for building and leveraging competences in pursuit of those goals (Hamel and Heene 1994; Sanchez, Heene, and Thomas 1996; Heene and Sanchez 1997; Sanchez and Heene 1997; Sanchez 2001).

The central role of management processes in building and leveraging competences is indicated in the representation of a firm as an 'open system' of resource stocks and flows shown in Figure 12.1. The management processes a firm uses play a central role in determining how perceptions and evaluations of strategic threats and opportunities are generated within a firm, and how a firm decides to respond to perceived threats and opportunities by deploying and coordinating its available resources and capabilities. Thus, as indicated by the downward arrows below management processes in Figure 12.1, management processes drive the building up and leveraging (use) of resources and capabilities, which in turn create and sustain a firm's operations and products, which then determine whether a firm achieves competitive advantage in its product markets.

Just as management processes drive other organizational processes, the management processes a firm uses are influenced by a firm's 'strategic logic', which is the 'operative rationale' followed by management in defining the firm's strategic goals and in pursuing the achievement of those goals (Sanchez, Heene, and Thomas 1996). The relationship between a firm's management processes and its strategic logic must be seen as interactive—hence, the two-way arrow between

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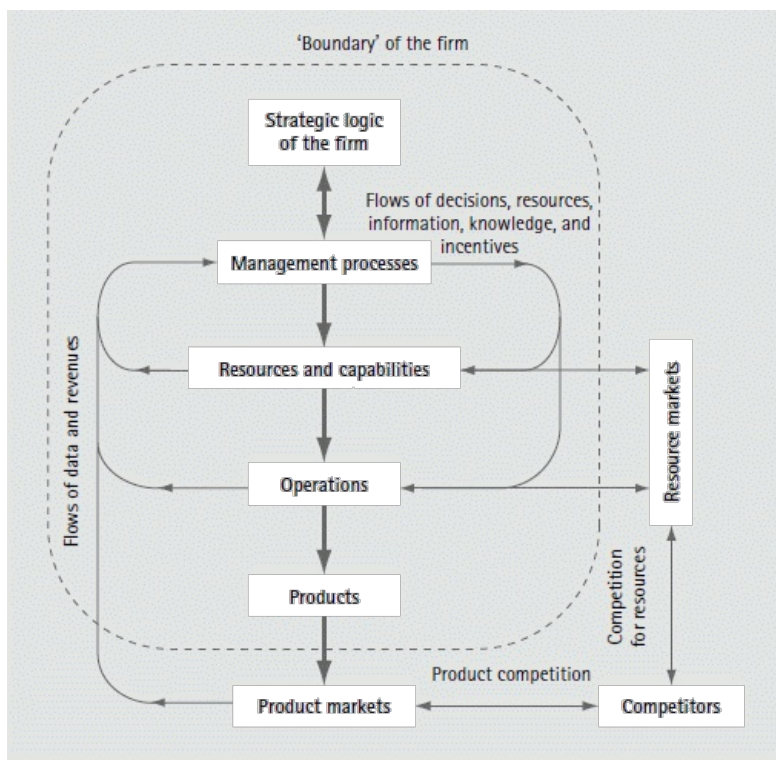


Fig. 12.1 View of the firm as an 'open system'

strategic logic and management processes in Figure 12.1. Information generated through management processes (such as assessments of the adequacy of its current resources and capabilities to achieve success in its markets) influences the goals a firm sets and the way it tries to achieve these goals, thereby shaping the evolving strategic logic of management. Thus, careful analysis of the management processes used in a firm can lead to insights into the underlying 'strategic intent' (Hamel and Prahalad 1989) of managers that motivates their adopting of goals for creating and using resources and capabilities.

In the open systems view of organizations suggested in Figure 12.1, management processes consist of a number of key organizational processes, as noted below.

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12.4.1 Gathering and Interpreting Data about the Environment of the Firm

What a firm perceives about its environment and the firm's internal condition depends greatly on the data that the firm routinely gathers externally and internally, as well as on the *interpretive framework* the firm uses to extract meaning (interpretation) from those data. Fundamentally, data consist of various kinds of measurements (sales, inventory, productivity, employee satisfaction) and descriptions (customer reactions to new products, opinions from distributors and suppliers). Meaning is extracted from some set of measurements and descriptions through processes of comparison with other measurements and descriptions. Comparison can be *temporal* (How does the current measured level or description compare with prior measurements and descriptions?) or *contextual* (How do our measured levels compare to competitors' levels? How do our processes benchmark against 'best in world' processes of other companies in other industries?).

The sensemaking ability of a firm—its ability to perceive significant changes in the opportunities and threats inherent in its environment—therefore depends on the data it gathers, on the comparisons it undertakes to extract meaning from data, and on the relative weight (importance and credibility) the firm's managers accord to the various meanings it derives from its comparisons of available data. A key aspect of analyzing the ability of a firm's management processes to support the effective creation and use of its resources and capabilities is therefore understanding the kinds and sources of data and interpretations that a firm's managers pay greatest attention to. Firms whose sensemaking processes are driven largely by data on current production, market share, and revenues gathered through *lower-order control loops*, as shown in Figure 12.2(a), are likely to suffer from 'cognitive myopia' that fails to detect significant changes in the environment of the firm (Sanchez and Heene 1996). An essential organizational corrective to the potential for cognitive myopia is establishment of *higher-order control loops*, as shown in Figure 12.2(b), that explicitly monitor the larger environment of the firm, that solicit diverse points of view that can challenge the current strategic logic of the firm, and that compare its management processes to those of 'best in world' firms both

within and outside the firm's industry.

12.4.2 Decision-Making about Task and Resource Allocations

A firm's sensemaking activities will eventually lead to decisions to respond to perceived opportunities and threats. The first steps in taking action are decisions about task allocations (assignments of responsibilities to people) and about what resources will be allocated to support the people given responsibility for performing

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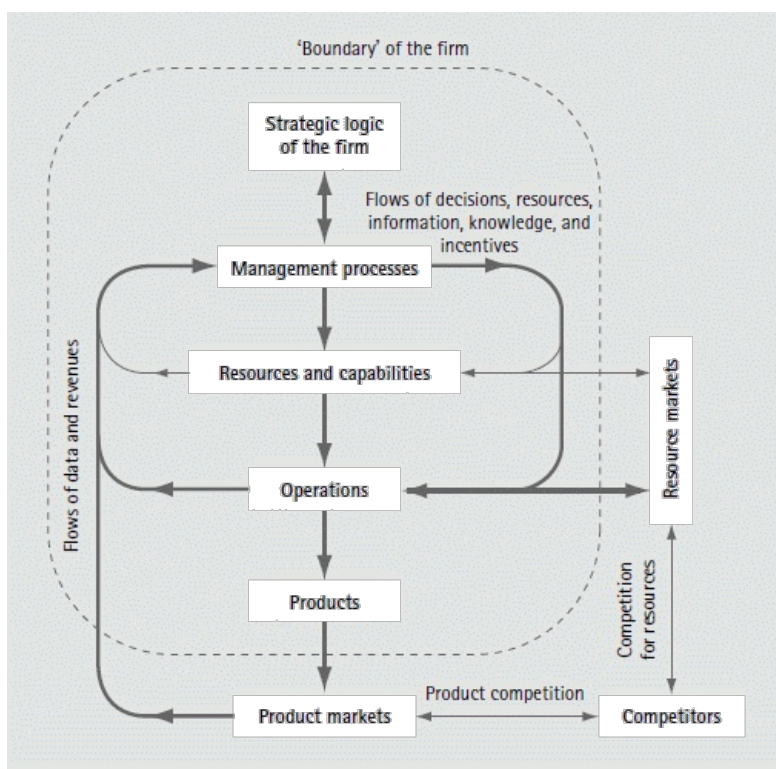


Fig. 12.2a 'Lower-order' control loops in the firm as an 'open system'

allocated tasks. Task and resource allocations reflect a firm's priorities for using and/ or improving its resources and capabilities. The tasks that an organization assigns to those perceived to be its most capable people tend to be those tasks to which current management attaches the greatest importance.

12.4.3 Communicating Decisions

Achieving coherence of action across an organization requires that management both make coherent strategic decisions about tasks and resource allocations and communicate those decisions clearly to people throughout the organization. The clarity and thoroughness with which management communicates goals and decisions greatly affects the ability of a firm to use its resources and capabilities to greatest strategic effect. Internal analysis of organizations should therefore include

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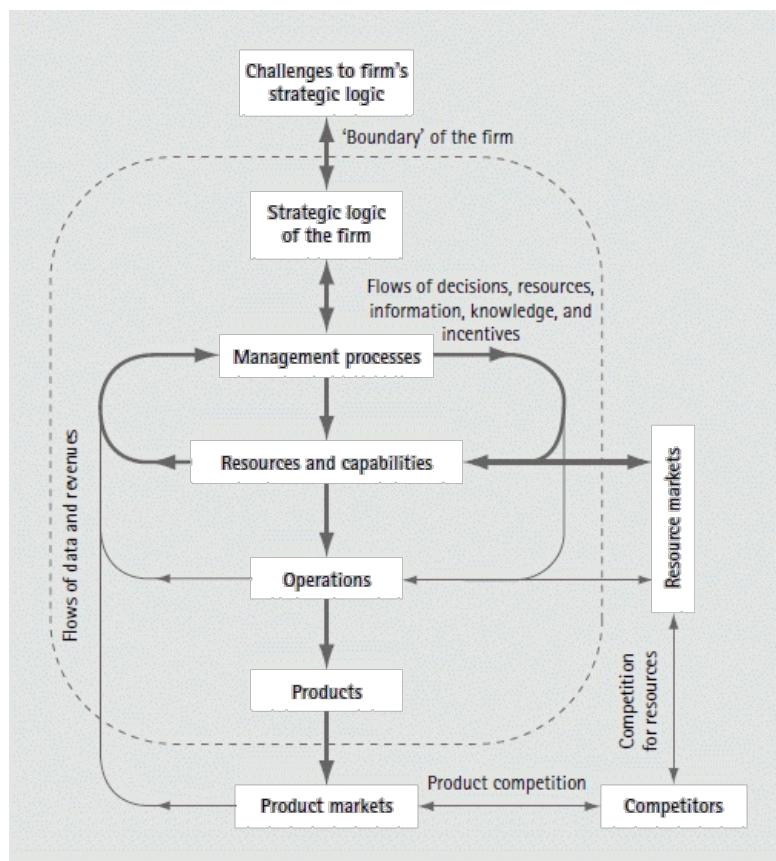


Fig. 12.2b 'High-order' control loops in the firm as an 'open system'

assessments of the effectiveness (e.g., frequency, content, specificity) of management's communication processes.

12.4.4 Acquiring and Using Resources and Capabilities

Firms must compete not just in product markets, but also in resource markets, where a firm must attract the best available resources and capabilities needed in its value-creating processes. Some of the resources a firm attracts may become 'internalized' within the firm (i.e. come under the effective control of the firm), while others may continue to reside in other firms but are 'addressable' by the firm when

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their services are needed. Analysis of a firm's resources should therefore include not just internalized resources, but also external resources which the firm can address when it needs the services of those resources. A firm's processes for engaging external resources on an ongoing but 'as needed' basis are of particular importance in analyzing the ability of a firm to leverage its own resources and capabilities more widely and quickly through effective use of external resources.

12.4.5 Disseminating Knowledge and Information

To assure the greatest possible effectiveness in the use of its resources and capabilities, an organization should have in place processes for efficiently disseminating relevant knowledge resources that may be useful in performing a given task to the people who have been allocated responsibility for that task. In addition, the effective coordination of resources and capabilities in performing tasks requires the dissemination of essential information about how the various resources and capabilities in a firm are expected to interact. An internal analysis of a firm should therefore include an assessment of its processes for leveraging knowledge and information effectively—i.e. processes for gathering, archiving, and redirecting knowledge and information to those people who can benefit from the use of that knowledge and information in performing their tasks.

12.4.6 Monitoring the Development and Use of Resources within the Firm

In addition to communicating tasks to be performed and the ways in which an organization's resources and capabilities are expected to interact in performing those tasks, management must also establish processes for monitoring how well a firm's various resources and capabilities are actually interacting and performing at any point in time. Monitoring requires establishing processes that can measure and describe other processes that create or use resources and capabilities. What a firm decides to measure and describe in monitoring its internal processes will both reflect and shape its managers' priorities for developing and using resources and capabilities.

12.4.7 Designing Incentives to Reward Providers of Key Resources and Capabilities

If managers believe that people are motivated by the possibility of receiving extra rewards in return for extra effort and superior performance, they will design incentive systems that provide various forms of performance-based compensation.

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Incentives may be broadly construed to include financial compensation, promotions, social recognition, choice of work assignments, flexible work hours, opportunities for developing new or improved skills, and other kinds of benefits. Analysis of a firm's incentive systems can therefore clarify the kinds of performance that are most valued by the firm (and thus the uses of resources and capabilities to which it attaches greatest importance), as well as the level of concern within the firm about achieving high levels of performance in using its resources and capabilities.

Table 12.3 provides a checklist for identifying and analyzing key aspects of a firm's management processes for acquiring and deploying resources and capabilities in processes of competence building and leveraging.

12.5 Competences in the Analysis of Firms

Analyses of a firm's resources, capabilities, and management processes are essential steps in developing insights into a firm's *competences*, which are now recognized in contemporary strategic thinking as the ultimate source of a firm's competitive advantages. Developing real understanding of a firm's competences, however, requires integration of these analyses to compose a *dynamic, systemic, cognitive, and holistic* view of a firm as a competence building and leveraging entity. We next consider these further *integrative* aspects of a firm that must be understood before any competences a firm may have can be adequately identified and assessed. We also consider the importance of assessing the *relative emphasis* that a firm places on competence building *versus* competence leveraging—i.e. the 'strategic balance' that a firm maintains in allocating resources to competence building and leveraging. Finally, we consider the need to understand how the *patterns* of competence leveraging undertaken by a firm compare to the patterns followed by other firms, and how diverging and converging *trajectories* of competence building give insights into future competitive positions of firms in industries.

12.5.1 Integrative Aspects of Competence Assessment

Dynamic aspects of competence describe a firm's ability to respond to changing opportunities and threats quickly, effectively, and at low cost. Key aspects of a firm's ability to manage the dynamics of its environment include the flexibility of its current resources and capabilities to be redeployed to new uses, the speed with which a firm can acquire new resources and capabilities, and the speed and

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Table 12.3 Characteristics of management processes that are important in creating and sustaining competitive advantage

Management process characteristics	Examples
<ul style="list-style-type: none">• The management processes are effective in coordinating interrelated capabilities	A firm can coordinate a network of component suppliers in developing a stream of new products
<ul style="list-style-type: none">• The management process <i>detects</i> and <i>develops</i> fundamental technological, marketing, and other capabilities	Managers direct R&D investments to create 'platform' technologies for future generations of products
<ul style="list-style-type: none">• The management process includes <i>higher-order control loops</i> that challenge the organization's current strategic logic and management processes, as well as lower-order control loops that monitor current operations	A firm hires managers from other industries to bring new perspectives to their current management processes
<ul style="list-style-type: none">• The management processes lead to clear task <i>allocations</i> and <i>adequate resource</i> allocations to support tasks	Objectives of projects undertaken within the firm are clearly defined and fully funded
<ul style="list-style-type: none">• The management process includes <i>effective communication</i> processes	Management holds meetings to explain the firm's strategic initiatives to all employees, not just top management
	A firm effectively uses resources in a number of other

- The management processes are effective in *acquiring/accessing and using resources* inside and outside the firm
- The management process *disseminates knowledge and information* to activities within the organization that can apply the knowledge and information
- The management process effectively *monitors task performance*
- The management process *provides appropriate incentives* that attract providers of key resources and capabilities

A firm effectively uses resources in a number of other firms in producing, distributing, and servicing its products

A firm has a process for codifying different forms of knowledge it develops and directing new knowledge to employees working on related topics

Performance objects and measures are well defined and reviewed on a regular basis with each person and group

Talented people in their fields join the company and stay

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effectiveness with which the firm can deploy new combinations of resources and capabilities to meet new opportunities and threats (Sanchez 1995).

Systemic aspects of competence describe a firm's ability to *interrelate and coordinate* current resources and capabilities in configuring effective systems for acquiring, developing, and using current and future resources and capabilities. In assessing this aspect of competence, it is essential to evaluate a firm's processes for identifying, accessing, and coordinating 'firm-addressable resources' located beyond the legal boundaries of the firm, as well as the firm's processes for coordinating its own internal resources and capabilities.

Cognitive aspects of competence concern the *sensemaking* processes of a firm through which its managers and other employees try to understand the strategically important opportunities and threats the firm faces in its environment, and what strategic logic for acquiring and deploying specific resources and capabilities would give the firm its best chance of responding advantageously to those opportunities and threats. An essential feature of the sensemaking process in a firm is the mental models that a firm's managers use to reduce the complexity of the firm's environment to a cognitively manageable level. The mental models of managers can be distinguished by the environmental and internal variables that managers are aware of and monitor (as well as by the variables that are not included in a model) and by the ways in which those variables are interrelated in the mental models (as well as by the absence of certain interrelationships between variables in those models). A further consideration is the extent to which the mental models of top managers of a firm have or lack congruence and the extent to which processes exist in the firm for discussing and achieving congruence among the mental models of top managers.

Holistic aspects of competence essentially relate to the need of an organization as an open system of resource stocks and flows to attract strategically useful resources and capabilities on an ongoing basis. In essence, attracting strategically useful resources and capabilities to a firm's value-creating processes requires that a firm have effective processes for *distributing* the value it creates to all providers of resources and capabilities that are essential to maintain its competence building and leveraging processes (Sanchez and Heene, forthcoming). Thus, the incentives that a firm provides to employees, suppliers, customers, and the community—as well as to providers of financial resources—are important predictors of how successful the firm will be in attracting the best available resources and capabilities.

12.5.2 Relative Emphasis on Competence Building versus Competence Leveraging

Firms can be distinguished strategically by the relative emphasis that each firm places on leveraging existing competences versus building new competences. Competence

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leveraging consists of activities in which a firm uses same or 'like kind' resources and capabilities that it deploys and coordinates in familiar ways—e.g. in providing essentially the same kinds of products and services to similar markets. Competence leveraging also includes expansionary activities of a firm when the firm is essentially 'doing more of the same thing'—such as setting up more retail outlets selling the same kinds of products in the same ways, or adding new production capacity using the same technologies and methods to make more of the same products.

Competence building occurs when a firm undertakes to acquire and use new kinds of resources and capabilities (i.e. *qualitatively* different resources and capabilities), and/or to deploy and coordinate current or new resources and capabilities in new ways—for example, to offer new kinds of products and services to new kinds of markets. Competence building therefore requires organizational learning about new kinds of resources and capabilities that may be available to a firm, new ways of attracting or accessing new resources and capabilities,

new ways of coordinating, and new uses (products and services) for resources and capabilities.

An important question in the analysis of firms is the relative emphasis a firm currently places on competence leveraging *versus* competence building. Figure 12.3 represents the essential relationships between the two activities. A competence building effort, if successful, creates new competences. Leveraging those competences creates value in the marketplace that generates flows of resources (cash,

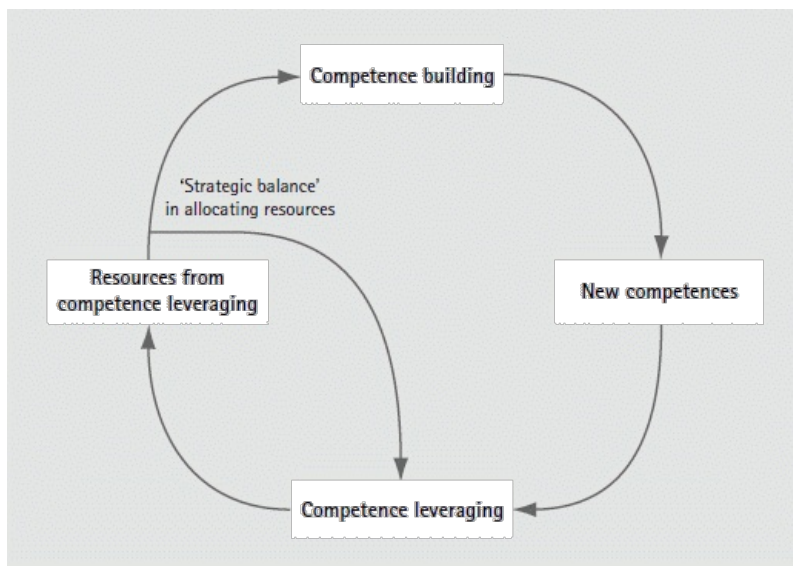


Fig. 12.3 Interdependence of a firm's competence building and competence leveraging activities

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reputation, brand equity, etc.) that can then be invested either in more competence leveraging (doing more of the same) or in competence building (learning how to do new things).

The strategic options (Sanchez 1993, 1995) of a firm to create and use competitive advantages in the long run depend on the *strategic balance* that a firm's managers maintain in allocating available resources and capabilities to activities of competence leveraging *versus* competence building. If a firm invests adequately in building new competences while it is also leveraging its current competences, a 'Virtuous circle' may result in which the firm is able to maintain or even increase its relative competitive advantages in the long run. When a firm's investments in competence building are not adequate to recognize and respond to evolving opportunities and threats in its environment, however, a 'Vicious circle' results in which inadequate competence building leads to gradual erosion of competitive advantage, which leads to reduced ability of the firm to generate resource flows through competence leveraging, which leads to reduced ability to invest in competence building, which leads to reduced levels of competence building, which leads to further loss of competitive advantage, and so on, in a downward spiral of progressive loss of competence and competitive advantage.

Assessing whether a given firm is likely to be engaged in a virtuous or vicious circle of competence leveraging and building in the long run is not simply a matter of comparing its current investments in competence building activities to those of other firms in its industry. Since the generation of resource flows needed to invest in competence building depends on a firm's current competence leveraging activities, there will usually be an optimal balance to be struck between (i) committing current resource flows to expansions of competence leveraging to increase resource flows *in the near term*, and (ii) committing current resource flows to competence building to generate new resource flows *in the long term*. Failure to manage the dynamics of resource generation and use can lead to financial crises that can interrupt a 'Virtuous circle' of resource development and use and throw a firm into a 'Vicious circle' of deteriorating competences. Thus, assessing a firm's strategic balance in allocating resource flows also requires assessing the *timing* of the resource flows that can result from current investments in competence leveraging *versus* competence building.

12.5.3 Patterns of Competence Leveraging and Trajectories of Competence Building

In assessing the sustainability of competitive advantages that may be derived from a firm's competences, it is essential to compare a firm's competence leveraging and building activities to those of other firms that are current or potential competitors.

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The essential features of the current competitive environment in an industry will be determined by firms' respective patterns of competence leveraging. A current competitive context may be considered stable when the competitive interactions of firms follow well established, similar patterns of competence leveraging and building—i.e. each firm competes over time by using essentially the same resources and capabilities deployed and coordinated in similar ways. In such contexts, the relative competitive positions that firms occupy will be stable and will be determined largely by the competence building activities they have undertaken in the past.

Competence-based competitive dynamics result, however, when changes in the opportunities or threats perceived by managers in a firm lead to changes in the firm's goals. In such circumstances, a firm's managers may decide to expand the firm's competence leveraging or to undertake competence building activities. Expansion of a firm's competence leveraging activities (for example, through geographical expansion) may have little impact if there is ample unserved demand to absorb the products and services that result from the firm's expanded competence leveraging activities. When demand for the firm's products is already well served, however, expanded competence leveraging by one firm will change the intensity of competitive interactions in the industry as firms compete more aggressively to attract and retain customers.

When confronting increasing intensity of competition in leveraging current competences, managers in at least some firms may decide to begin new competence-building activities that have the potential to change the nature of competition in the long run. When firms in an industry are embarking on significant competence-building activities, it is essential to look beyond the current sets of competitors in an industry to identify firms whose converging or diverging competence-building activities suggest significant changes in the future competitive landscape.

Figure 12.4 suggests how the future competitive positions of firms can be assessed today based on their current *trajectories* of competence-building activities. *Converging competence groups* identify firms that are dissimilar in their current competence-leveraging activities, but that are pursuing competence-building trajectories that will lead to possession of similar competences in the future. *Diverging competence groups* identify firms that currently have similar competences, but that are building different kinds of new competences and thus appear to be migrating to different competitive arenas in the future. Assessment of a firm's competences and the sustainability of any competitive advantages it may derive from those competences therefore requires not just analysis of a firm's current competence leveraging activities, but also analysis of convergence and divergence in the competence-building activities of current and potential competitors.

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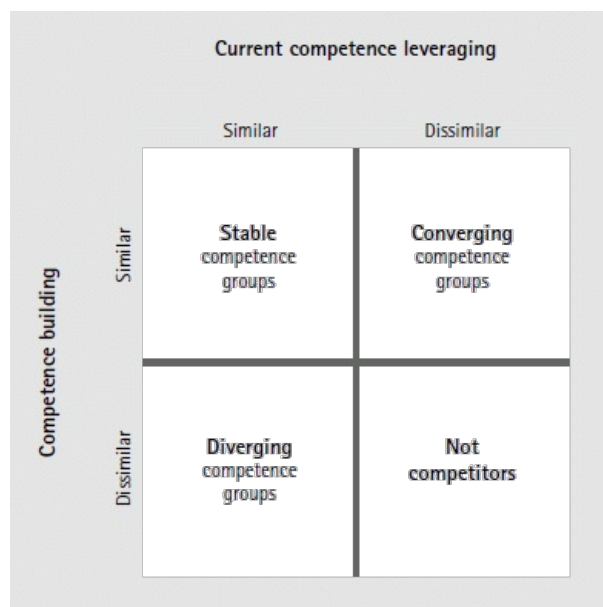


Fig. 12.4 Classification of future competitors based on competence building activities

12.6 Conclusions

This chapter develops a *competence framework* for the internal analysis of firms and of their potential to create and sustain strategic

competitive advantages. We first considered the characteristics of *resources* that have the potential to contribute to the creation and sustaining of competitive advantage. We then considered how *capabilities* that take time to develop may also help to maintain competitive advantages for firms that were first movers in developing such capabilities. To create competitive advantage, however, resources and capabilities must be deployed and coordinated effectively. We therefore considered the essential role of *management processes* in organizational sensemaking (perceiving opportunities and threats and deciding appropriate responses) and action taking (responding to opportunities and threats by acquiring and using resources and capabilities in coordinated processes).

Resources, capabilities, and management systems provide the main building blocks for analysis of organizational competences. We also considered, however, why fully assessing the competences of an organization requires further analysis of

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certain dynamic, systemic, cognitive, and holistic aspects of the way a firm tries to achieve a coherent integration of its resources, capabilities, and management processes. We also emphasized the importance of analyzing the strategic balance a firm maintains in allocating resources to its competence leveraging *versus* competence building activities. We concluded by explaining how analysis of firms' diverging or converging competence-building trajectories can yield insights into the future evolution of competitive landscapes in an industry.

References

Amit, Rafael, and Schoemaker, Paul (1993). 'Strategic Assets and Organizational Rents'. *Strategic Management Journal*, 14: 33–46.



Barney, Jay B. (1986). 'Strategic Factor Markets: Expectations, Luck, and Business Strategy'. *Management Science*, 32: 1231–41.



——— (1991). 'Firm Resources and Sustained Competitive Advantage'. *Journal of Management*, 17/1: 99–120.

Dierickx, Ingmar, and Cool, Karel (1989). 'Asset Stock Accumulation and Sustainability of Competitive Advantage'. *Management Science*, 35/12: 1504–11.

Hamel, Gary, and Prahalad, C. K. (1989). 'Strategic Intent'. *Harvard Business Review*, May/June: 63–76.

——— and Heeme, Aimé (eds.) (1994). *Competence-Based Competition*. New York: John Wiley & Sons.

Heene, Aimé, and Sanchez, Ron (eds.) (1997). *Competence-Based Strategic Management*. Chichester: John Wiley & Sons.

Leonard-Barton, Dorothy (1992). 'Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development'. *Strategic Management Journal*, 13: 111–25.

Morecroft, John, Sanchez, Ron, and Heene, Aimé (eds.) (2001). *A Systems Perspective on Resources, Capabilities, and Management Processes*. Oxford: Elsevier Pergamon.

Nelson, Richard, and Winter, Sidney (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Belknap Press.

Penrose, Edith (1959). *The Theory of the Growth of the Firm*. Oxford: Oxford University Press.

Prahalad, C. K., and Hamel, Gary (1990). 'The Core Competencies of the Corporation'. *Harvard Business Review*, 68/3: 79–93.

——— (1993). 'Strategy as Stretch and Leverage'. *Harvard Business Review*, Mar.-Apr.: 75–84.

Sanchez, Ron (1993). 'Strategic Flexibility, Firm Organization, and Managerial Work in Dynamic Markets: A Strategic Options Perspective'. *Advances in Strategic Management*, 9: 251–91. Greenwich, Conn.: JAI Press.

——— (1995). 'Strategic Flexibility in Product Competition'. *Strategic Management Journal*, 16/Summer Special Issue: 135–59.

——— Sanchez (ed.) (2001). *Knowledge Management and Organizational Competence*. Oxford: Oxford University Press.

end p.374

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——— and Heene, Aimé (1996). 'A Systems View of the Firm in Competence-Based Competition' in Ron Sanchez, Aimé Heene, and

Howard Thomas (eds.), *Dynamics of Competence-Based Competition: Theory and Practice in the New Strategic Management*. Oxford: Elsevier Pergamon, 39–62.

———(eds.) (1997). *Strategic Learning and Knowledge Management*. Chichester: John Wiley & Sons.

———(forthcoming). *The New Strategic Management: Competition, Cooperation, and Organizational Competence*. Chichester and New York: John Wiley and Sons.

——— and Thomas, Howard (eds.) (1996). *Dynamics of Competence-Based Competition: Theory and Practice in the New Strategic Management*. Oxford: Elsevier Pergamon.

Teece, David, Pisano, Gary, and Shuen, Amy (1990). 'Dynamic Capabilities and Strategic Management'. Working paper, University of California, Berkeley.

——— (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18/7: 509–33. [Link](#)

Wernerfelt, B. (1984). 'A Resource-Based View of the Firm'. *Strategic Management Journal*, 5:171–80. [Link](#)

Case Study

Changing Competences in the Japanese Beer Industry

In the late 1980s to early 1990s, the Japanese beer industry experienced unprecedented market upheaval. Through a radical change in competitive strategy, supported by the development of new organizational competences, Asahi Breweries, Ltd., was able to dislodge Kirin Beer from decades of market dominance and become a new market leader in Japan.

From the 1950s to the mid-1980s, four companies—Kirin, Sapporo, Asahi, and Suntory— competed in the Japanese beer market. By the 1980s, Kirin Beer had steadily increased its share of the Japanese beer market to more than 60 percent, while Sapporo held a 20 percent share, Asahi an 11 percent share, and Suntory a 7 percent share. Kirin's hugely successful market strategy was driven by careful attention to three competitive factors:

1. *Distribution*. Kirin worked hard to establish a dominant national distribution system and to persuade its nearly 100,000 distributors and retailers in Japan to sell only Kirin Beer. Kirin also used its distribution system to assure the freshness of all Kirin Beer products on dealers' shelves.
2. *Production* To serve its growing distribution channels as well as increasing consumer demand, Kirin steadily expanded its production capacity by building a new brewery nearly every two years during the 1960s and 1970s. The capacity of each brewery was selected to assure maximum economies of scale. Through this steady expansion of efficient production, Kirin became the low-cost producer of beer in Japan.

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3. *Brand* By maintaining consistently high levels of advertising, Kirin succeeded in persuading most Japanese beer consumers that Kirin Beer offered 'real beer taste' that was superior to the taste of other brands of beer available in Japan.

Kirin's market dominance was so significant that the price set by Kirin for its beer effectively established the maximum price for all domestic beer sold in the Japanese market. Given Kirin's highly favorable cost position, Kirin's managers priced Kirin Beer to assure that the three smaller competitors could cover their costs (at least most of the time), while allowing Kirin to enjoy strong profitability.

In the late 1970s, the smaller beer companies in Japan began to look for ways to compete more effectively against Kirin. Unable to compete on cost, they turned to new packaging concepts as a possible way of differentiating their products and building brand awareness and market share. After experimenting with beer cans shaped like rockets or labeled with cartoon characters like penguins and raccoons, all of which could be quickly imitated by any competitor, the packaging wars' came to an end in the early 1980s without changing the relative positions of competitors. Similar efforts to define and establish 'niche' markets for beers with unusual tastes also failed to change consumer preferences to any significant extent.

In the mid-1980s, facing growing cost pressures and diminishing profitability, Asahi Breweries decided to launch a 'frontal attack' on the mainstream of the Japanese beer market in a perhaps final effort to wrest a profitable level of market share from Kirin. After decades of carefully controlling its brewing process to maintain the same taste in its beer, Asahi's managers began to ask if that taste was what the majority of beer consumers still wanted in Japan. After doing some basic consumer research for the first time in decades, Asahi's marketing staff began to sense that the new generation of Japanese beer drinkers would be interested in a new kind of beer taste unlike the taste offered by Asahi's current beer or the 'real beer taste' offered by Kirin. Describing the new taste desired by the new generation of beer drinkers (including growing numbers of young women) as 'smooth but sharp', Asahi's marketing staff asked the production staff to

produce new beer formulations for market testing. Asahi's brewers, however, regarded themselves as arbiters of 'good' beer taste and largely resisted requests to deviate from the current taste of Asahi Beer.

Growing financial pressure led to a change in Asahi management. Asahi's new managers decided to support the frontal attack on the mainstream of the beer market proposed by the marketing staff and to promote closer cooperation between marketing and production staff. Team-building retreats were organized, as well as regular meetings of marketing and production staff. To overcome the traditional separation between marketing and production activities, a new product development team was created that brought marketing and production staff together for the first time. To emphasize the strategic importance of new product development within Asahi, the product development team was given direct access to top management, bypassing the firm's usual—and typically slow—review and approval process by several layers of middle management.

Because marketing staff used consumer terms and production staff used technical terms to describe beer, a first critical activity of the product development team was to develop a new 'corporate language' for communicating about the taste of beer. After a sustained effort, marketing and production were able to develop a common vocabulary for describing the different tastes and sensations involved in drinking beer. As a result, the development team was able to define and develop a new beer taste that both marketing and production staff agreed was 'sharper, cleaner, more refined'.

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The new beer was introduced as 'Asahi Super Dry Beer' in 1986. The reaction of Japanese beer consumers quickly confirmed that Asahi's marketers had guessed right: The preferences of Japan's new generation of beer drinkers had indeed shifted, establishing a 'new taste center' in the Japanese beer market. Super Dry was a huge hit, and Asahi quickly shifted its breweries to production of the new beer. The phenomenal consumer acceptance of the new beer soon attracted large numbers of new distributors and retailers, and Asahi's share of the Japanese beer market grew from 10.3 percent in 1986 to 24.8 percent in 1989, largely at the expense of Kirin's traditional tasting beer.

As the success of Asahi Super Dry proved to be enduring, Kirin, Sapporo, and Suntory intensified their product development processes and began to bring a succession of new beers to market. By the early 1990s, no single beer brand dominated the Japanese market, and competition in the Japanese beer industry became centered on constant exploration of changing consumer tastes and development of new beers to serve emerging tastes. The days of one 'true beer taste'—and competitive advantage based on economies in producing and distributing a dominant brand—were over.

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13 Dynamic Capabilities

Stephen Tallman

13.1 Why Take a Capabilities Perspective?

THE most popular approaches to strategic management today, as is evident in previous chapters, take a market positioning perspective—the objective of strategy is to locate the firm's products in a market niche that can be isolated from 'excessive' competition and so can provide above-average profits. This approach to strategy is driven by ideas from Industrial Organization Economics, a branch of economics that considers the organization of industry to be the basis of competitive advantage. Associated most strongly with Harvard Business School and its most widely recognized strategy scholar, Michael Porter, 10 economics assumes that excess profits reflect monopoly or oligopoly advantages resulting from imperfect competition due to restricted entry into an industry or industry segment. In such 'competitive forces' (Teece, Pisano, and Shuen 1997) or 'imperfect competition' models of strategy, the firm can establish a quasi-monopoly position (or a small set of firms can establish and maintain oligopoly conditions), excluding competitors through entry or mobility barriers and pricing above what would be possible in a competitive market situation. This perspective on strategy is apparent, for instance, in Michael Porter's five forces model of industry analysis (Porter 1980). In this

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model, the primary competitive force is the threat of entry by other firms, a threat to eliminate monopoly or oligopoly profits through increased competition. Other forces are the pressures of suppliers and buyers to appropriate these excess profits and the threat of new technologies or competitive approaches that might make the entire niche irrelevant. Finally, the interactions of the firms within the industry or segment have to do with the intensity of competition among these firms and its impact on their ability to price above a fair market return for an extended period of time. The key consideration of strategy in what has been called the Structure, Conduct, Performance (SCP) model is the identification of an industry or industry segment with existing or potential structural impediments to entry. Once this structure is identified, the firm engages in strategic conduct to enter the industry or segment and to limit the entry of other firms, the options of suppliers, the choices of customers, and the development of new technology while earning monopoly profits.

More recently, though, studies of the sources of competitive advantage and superior performance have suggested that neither industry nor industry segment is a key source of long-term superior performance. Over time, and especially when performance is adjusted for risk, industries tend toward a normal level of performance, suggesting that industry characteristics, such as the level of competition within or the threat of entry from without, do not determine performance. In like manner, of the many studies of 'strategic groups' or sets of firms within an industry with similar strategies, the great majority have found no consistent performance effects associated with specific sub-sectors of an industry. What has been shown, rather, is that performance is differentiated business by business. That is, the characteristics of individual businesses appear to explain variations in performance much more successfully than do the characteristics of the industry (Rumelt 1991). This research suggests that the internal assets and skills of the individual firm differentiate its performance from the rest of its industry, which itself will not perform differently from other industries in the long run. Conceptually, too, researchers have come to realize that market positions are inherently difficult to defend. Other firms can observe market position and related levels of performance. If profits are high enough, new firms will find ways to surmount structural barriers, or will be motivated to find alternative strategic positions that can access the same customer demand. Even if competitors do not actually enter the segment or industry, their threat of entry can make a market position contestable (Ghemawat 1986), not sustainable. That is, the mere threat of entry forces incumbent firms to limit their performance excesses to reduce the attractiveness of entry. While such responses may limit competition, they still result in lower than expected performance. Only by having some unobservable and unmatchable advantage based on internal assets and capabilities can firms attain sustainable advantage, a process to be described below. In their early formulation of strategic advantage, Learned, Christensen, Andrews, and Guth (1969) spoke of distinctive competences and the

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resource strengths and weaknesses that determine sustainable competitive advantage. However, this part of their message was obscured for some time as the competitive forces paradigms dominated. The point of taking a capabilities perspective is to examine closely the characteristics of the firm's internal assets, capabilities, and competencies and their impact on strategy and performance. The evidence is becoming clear that these, not market competition, are the determinants of sustained differences in performance levels from one firm to another.

13.2 Definitions

Before we begin to examine the role of dynamic capabilities in strategy, we should define certain terms. First, capabilities and related aspects of firms are connected closely yet remain, and need to remain, distinct in order to build models of internally based competitive advantage. Second, as the idea that long-term advantage derives from some internal aspect of the organization has become popular, these various terms have been used in different ways and with different hierarchies of meaning. We must establish the meanings to be used in this chapter, then tie these to related concepts. To begin, consider the meaning of competitive advantage in this context.

Competition among firms results in varying levels of performance. Individual firms may choose to pursue different objectives—increased profits, sales growth, increased market share, cash flow, new discovery, and so forth. Strategy has come to discuss the objective of competition as sustained competitive advantage. That is, the successful firm is one that demonstrates long-term advantage over its competition, however this advantage may be measured. Competitive strength can be used to generate profits, support growth, build market share, invest in new product development, etc., depending on the objectives of management. We will follow this convention through the chapter. However, in discussing a capabilities view, we must make note of another formulation of competitive success. This is the concept of economic rents. Rents derive from restrictions on perfect markets. Monopoly rents result from deliberate restrictions on outputs (Peteraf 1993), and provide profits in industrial organization models. Rents in excess of fair market returns that are due to the owners of superior input factors in a permanent state of shortage, such as land, are often called Ricardian rents, after nineteenth-century economist David Ricardo who first described such rents. Most relevant to the capabilities model of strategy, though, are rents to the owners of unique intangible assets (those capabilities again), which are properly defined as rents to quasi-fixed assets (Peteraf 1993),

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since the assets eventually can be replicated or supplanted given time and investment—they are potential public goods not in permanent short supply. Those assets that are actually capable of generating rents are typically tied to a single firm or small set of firms, as a wider spread of resources produces competition that kills rents. Also important to capabilities models, in which advantage is tied to complex bundles of resources, is the idea of Pareto rents. These represent the value of applying a resource in its best application that is in excess of its second-best use. If the best use is as part of a complex capability, the particular firm-specific capability bundle generates excess value in the form of Pareto rents.

Business firms possess a variety of assets. The majority of tangible, identifiable assets are simple production factors, bought and sold at market prices and capable of only providing a fair market return, as they are available to all firms. Assets that can generate rents must be in a condition of scarcity, unavailable to competitors. Firm-specific, rent-generating resources have been characterized in several ways, but the simplest is as physical, human, or organizational resources (Barney 1991). Physical resources are either hard assets or knowledge that has been codified—recorded in some formal manner, as with a patent or copyright. Such resources seldom provide long-term advantage, as they can be reinvented, bought and sold, or misappropriated once they are known. In the short term, though, they can generate quasi-rents. Human resources, too, have limited rent-earning potential for the firm. While the individual knowledge that is the basis for human resources (a scientist with unique skills and insight or a marketing manager with a strong intuitive grasp of Internet marketing, for instance) may be difficult for other firms to duplicate, it also has certain disadvantages. First, the organization must compete with the employee to appropriate the value of the knowledge, and the more uniquely skilled the individual, the more of the earnings resulting from his or her activities the firm must forfeit to retain his or her services. Second, skilled employees can leave, if given the incentive, and take their unique knowledge and skills with them. Long-term advantage lies with the employee, not the firm.

Sustainable advantage for the firm appears to reside in large part with intangible organizational resources—capabilities and their ilk. These are the processes, systems, and structures that are at the core of the firm. While they involve the people of the firm, they are diffuse, not focused on any individual, and they are usually team-based, involving the interaction of many individuals. They are tacit; that is, they cannot be fully described, and they are embedded in the firm and cannot be taken out of it with any individual. These unique processes comprise what have been called intangible or 'invisible' assets. That is, they add to the value of the firm, but cannot be identified or priced specifically. As a result, their benefits can be observed in what appears to be a higher than fair market return on visible assets, but their exact workings are not observable—they possess what has been called 'causal ambiguity'. This means that the exact sequence of activities, set of ideas, or interaction of people that generates more efficient processes are not knowable—and

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therefore are not easily imitated, misappropriated, bought and sold, or replaced. Causal ambiguity is the key aspect of what are known as 'isolating mechanisms', barriers to imitation of resources at the firm level that are analogous to entry barriers and mobility barriers at the industry level. Capabilities demonstrate the levels of tacitness (skill-based knowledge), complexity, and firm-specificity (dependency on the particular firm's historical development and unique circumstances) that provide ambiguity and constitute effective isolating mechanisms (Reed and DeFillippi 1990).

Unique assets and capabilities are capable of generating rents, but do not always do so, at least not for their owner. In many cases,

supporting or complementary assets or resources are required to make rents and competitive advantage a reality. These are assets that do not generate rents in and of themselves—such things as distribution systems, market access, corporate name recognition, capital, and so forth—but which can be used to enhance the value of the unique products generated from the firm's really unique capabilities. Many anecdotes tell of the small firm with the really innovative idea that cannot go to market due to lack of capital or sales network. Such companies in many industries are acquisition targets for large firms well stocked with complementary assets, but short of rent-generating potential—a common situation in biotechnology, Internet start-ups, and other technology-intensive sectors. In some cases, complementarity may exist between two or more sets of assets and capabilities, both of which have some rent-earning potential, but that are particularly valuable when both are modified to work together, a condition referred to as co-specialization. Such assets are uniquely valuable only when used together, but may entail very large investments to be able to do so.

A final consideration in defining what we mean by capabilities is to categorize intangible resources. Various authors, such as Sanchez, Heene, and Thomas (1996) or Teece, Pisano, and Shuen (1997), have set out categories of complex intangible resources. While they use the same, or very similar, terms, they each provide their own interpretations and hierarchies. This chapter, unfortunately, must select a certain set of terms and can only be consistent, not conclusive. To begin at the lowest level of abstraction, we focus on Nelson and Winter's ideas of routines. These are established ways of acting among groups of individuals within a firm, typically having to do with everyday or routinized tasks. These might be as simple as procedures for handling inventory or as complex as established processes for considering and negotiating an acquisition or alliance. Bounded rationality and the demands for managerial efficiency push managers and skilled workers to settle on established operating routines to economize on time and attention. Such routines are used until they become unproductive or relatively inefficient, at which point random variation in application or imitation of others' activities will provide a more efficient or effective alternative from the constant swirl of variations

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and options presented to managers. The new solution will be adapted and itself become routine, an evolutionary process. Sets of routines, individual skills, and tangible resources are assembled by all firms to accomplish more complex tasks. Held together by managerial resources (Penrose 1959), these complex but intangible constructions are commonly called capabilities. Capabilities represent systematic ways of organizing resources, whether tangible, human, or smaller group routines. They are typically developed in practice, much like routines, and are therefore highly dependent on historical processes and so are unique to the individual firm. As such, capabilities have considerable potential as sources of competitive advantage. Capabilities also are inherently dynamic, in that these complex systems of behavior show constant variation in application and change whenever new organizational concepts are brought into the firm.

An alternative term often used for large-scale complex organizational skills is competence (or core competence). Learned et al. (1969) used the idea of distinctive competences to describe unique abilities to provide lower cost or differentiated products. Sanchez uses 'competences' to describe combinations of capabilities. Prahalad and Hamel (1990) use the term 'core competencies' to describe unique organizational abilities that can be shared across divisions of a corporation to generate core products that are the basis for the entire range of products actually sold to customers. In this chapter, competencies, or core competencies, will be used to describe capabilities (or combinations of capabilities) that generate competitive advantage in the marketplace. That is, some capabilities may be unique but not directly valuable to the customer. However, when combined with other capabilities and resources, they become the competencies of the firm—the characteristic resources and processes that distinguish one firm from its rivals. Thus, core (or key, or distinctive) competencies have a tie to the marketplace—to the customer—not just to the internal workings of the firm. As a result of this, competencies are vulnerable to changes in the marketplace. A set of capabilities that work in one market, say skills at purchasing and manufacturing in quantity, may not provide advantage—may not be competencies—in another market where demand is for highly varied and customized products. The move toward flexible manufacturing, now supported by Internet-based ordering, is making mass customization a reality and changing the key terms of competition, the needed competencies, in many product industries even as older firms continue to develop their skills at mass production. This is the competence trap—when a set of capabilities that have been a core competence, while continuing to improve from an internal perspective, become irrelevant to the market. The resource strategy must be complemented by a good market strategy, just as an effective market strategy requires unique resources to support it, or the firm, no matter how uniquely talented, will fail.

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13.3 Competitive Advantage from the Capabilities Perspective

13.3.1 The Economics of Rents

As described above, competitive advantage in industry structure models of competition is based on market position, an inherently temporary condition. Capabilities models of the firm, like other frameworks in what is becoming known as the resource-based theory of the

firm, approach the business firm (and other organizations) as a set of assets. A good part of the firm, indeed, most of what is visible of it, consists of production factors or generic assets. These include assets such as capital, labor, property, plant, equipment, receivables and payables that account for the value of the company. As defined above, competitive advantage does not reside in these assets—they are priced at their value in the market and can return at best a fair market rate. Resource-based views of the firm state that competitive advantage resides in a subset of assets that are unique to the firm, that provide value to customers, and that cannot be easily acquired, imitated, or substituted for by competitors. Such resources are able to generate competitive advantage because they permit the firm to provide value (whether lower prices, better quality, new technology, or some other benefit) to the customer and are scarce—not available to all competitors. This combination permits the firm to generate economic rents (actually, quasi-rents in this case, as knowledge-based assets are potentially public goods made scarce only by isolating mechanisms), or generate earnings above a fair market return. These excess earnings can be invested in gaining share, building new resources, returning excess profits, and the like: that is, in gaining and maintaining competitive advantage. Complex, tacit, embedded, knowledge-based resources such as capabilities and competencies provide the most sustainable competitive advantage.

Box 13.1 Competencies and competitive advantage in Wal-Mart

American retailing giant Wal-Mart provides a look at the application of both market segmentation and capabilities as sources of competitive advantage. In its early days, Wal-Mart expanded rapidly as it focused on a market segment previously ignored by major retailers. Rather than setting its stores in large retail parks in urban areas—obvious locations to access large numbers of relatively prosperous consumers (but home to a variety of direct competitors)—Wal-Mart built its stores in rural locations near relatively small cities and towns in relatively low-income areas. By serving not just the focal town, but also the surrounding area, and by easily underpricing the small local competitors, Wal-Mart grew to national prominence. However, this same success attracted larger and better-established competition, and chains such as Target and K-Mart began to locate next to Wal-Marts. At the same time, Wal-Mart soon filled likely sites and was forced to begin to locate in previously ignored urban areas with direct competitors. Wal-Mart found that its market segment was open to imitation and should have experienced severe pressure on its earnings and ability to grow. Instead, the company continued to grow into America's largest retail sales company. Wal-Mart had developed an inventory-keeping and distribution system to supply its far-flung network of large stores that had become the most efficient logistics system in American retailing. Wal-Mart has been able to stay ahead of its competition, not in location which has been copied, not in goods which are much the same as for other discount retailers, but in system efficiency and low costs, reputation, convenience, variety of goods, bargaining power, and other intangible attributes that attract busy customers. Try as they will, other discount retailers have not been able to match Wal-Mart as a general retail merchant, and even narrowly focused 'category killers' like Toys-R-Us and CompuAd have suffered as Wal-Mart has poached on their traditional turf. The competition has been able to match all of the market positioning aspects of Wal-Mart's strategy over time, but has not been able to penetrate the intricate web of reputation, pricing, efficiency, and relationship-building, based on capabilities that have evolved as the company has grown out of its rural roots.

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Peteraf (1993) provides an economist's perspective on resource-based competitive advantage. She establishes that resource-based competitive advantage arises from four conditions. First, the resources that are to provide advantage must be heterogeneous, different across firms. If all firms are identical in their resource endowments, none can secure an advantage. Second, the market for these resources must be imperfect, or their rent-generating potential will be fully embodied in their price, leaving no potential for rents. That is, unless a firm can identify a unique value in a resource unidentified by its competitors, the price of the resource will be bid up to the point where the price capitalizes the expected benefits of the resource. Third, the market for products must be imperfect, such that the rents are not dissipated by competition among firms with similar resources and capabilities. This condition requires that resources must not only be unique, they must be difficult to imitate and difficult to replace with substitute or alternative resources. Finally, the resources of the firm must not be mobile, that is, they are tied to the firm in order to provide economic value. The patent or scientist that is equally valuable to another company will either appropriate all rents from the firm, or will go (or threaten to go) elsewhere. Resources must be tied to the capabilities of the firm, which (as described above) are themselves part and parcel of the firm, in order to generate their maximum value if the firm is to extract rents. Otherwise, the opportunity costs of non-redeployment of assets will offset any gains to eliminate real rents. The consequence of these conditions, as can be seen from the definitions above, is that tacit, complex, idiosyncratic capabilities are the core of competitive advantage and rent generation.

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13.3.2 Internal and External Fit

Competitive advantage does not arise from the simple possession of unique resources and capabilities, however. No matter how unique or sustainable resource barriers or isolating mechanisms may be, capabilities must fit the character of market demand in order to deliver competitive advantage. Without market fit, capabilities may be exceptionally specific to the firm, but will not generate revenues. As Michael Porter puts it, 'Resources are not valuable in and of themselves, but because they allow firms to perform activities that create advantages in particular markets' (1991:108). Wernerfelt, in his original specification of the resource-based model of the firm, concludes that 'an entry barrier without a resource position barrier leaves the firm vulnerable to diversifying entrants, whereas a resource position barrier without an entry barrier leaves the firm unable to exploit the barrier' (1984: 173). Previous chapters describe the importance of barriers to free entry into market segments in order to protect monopoly rents from being competed away. Competition for rents from a resource or capability focused position suggests the importance of barriers to the imitation of critical resources and capabilities (isolating mechanisms) to protect Ricardian quasi-rents, as well as shifting, but valuable, temporary monopoly rents. Competition from this perspective resembles Chamberlin's (1933) concept of monopolistic competition. That is, firms generate products that have positive elasticities of substitution, but are not identical, as would be the case in a perfectly competitive market. So long as a given firm can maintain a certain degree of uniqueness in its product, some consumers will prefer its outputs to those of other firms, even at higher prices. Changes in price or product characteristics can result in switching, but consumers are not indifferent to sources of supply. From an economic perspective, this suggests that firms in an industry actually face different production functions, using the same undifferentiated inputs to produce somewhat different goods or services on different cost curves. If we consider that, from a strategy perspective, production functions are simplified expressions of the capabilities and competencies of individual firms, we can understand that differences in these intangible assets result in somewhat different, although substitutable, outputs and differentiated market positions for every firm.

13.3.3 Capability Building and Long-Term Advantage

These capabilities and competencies arise through interaction of the firm, as a bundle of physical, human, and organizational resources, with its competitive environment. Only through application in a specific environment do the capabilities and resources generate competitive advantage and rents. In addition, capabilities

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and other intangible resources develop through evolutionary processes of variation, selection, and retention of new processes within a specific environment. Capabilities contain an inherent learning aspect. They cannot be bought and are too complex and unspecified to be built intentionally. Rather, they evolve in response to demands for improved performance and random variation in internal processes (Nelson and Winter 1982). This dynamic aspect of capabilities is essential to their role in providing long-term competitive advantage. A fixed set of resources may be highly efficient in providing rents under one environment, but will fail as the environment changes. And the competitive environment of business will always change as the external environment develops and as other firms adapt to their own changing circumstances. Capability models assume that individual businesses adapt and evolve as they shed ineffective capabilities and resources and devise new ones, and would expect that groups of competing firms will evolve as a group since improved competitiveness by any one firm will inspire imitation or further innovation. Not all firms evolve profitably all of the time, though. Some firms become so committed to efficient execution of one strategy that they evolve only for greater efficiency at a chosen task, the equivalent of an evolutionary dead end in biology. These firms create what has been called a 'competency trap' for themselves, becoming ever better at an ever less relevant set of activities. Other firms never hit upon the variation that works as their competitors evolve, so eventually fail to be able to compete. Active learning programs to identify, acquire, or develop new capabilities may assist firms in remaining competitive, but we observe that most companies eventually *will* become non-competitive and disappear.

The real development of dynamic capabilities and related frameworks over traditional resource-based models is their dynamic or evolutionary nature, by which they address specifically developing or building capabilities for truly sustainable competitive advantage in the future. Barriers to imitability are not permanent any more than market barriers to entry or mobility, although they may be somewhat more sustainable depending on their tacitness, causal ambiguity, and complexity. Nevertheless, in the longer run competitors will erode initial entrepreneurial advantages. In the face of unrelenting pressures to copy or surpass their value, resource monopolies provide only short periods of competitive advantage if they do not change. Even more important, the environment of any business organization is in a constant state of ferment, and will, over time, move away from the conditions under which the firm's capabilities generated competitive advantage. Josef Schumpeter (1934) describes the role of the innovator or entrepreneur in breaking the cycle of business with new combinations of resources in a gale of creative destruction, but also describes the process of imitation by which industry and society advance, but the entrepreneurial firm loses its unique position. The greater the success of the entrepreneur, the more effort will be put forth by competitors to copy or surpass him. No matter how uncertain the causal relationship of a set of resources and capabilities may seem, competitors will eventually copy or bypass the essential

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resources, develop alternative processes, or devise a new technology that changes the entire competitive field. Current studies suggest that for minor changes in relatively simple skills, innovation on the part of competitors is most likely to lead to their success, as replication or imitation is too expensive, uncertain, and slow. For more complex capabilities, imitation of the lead firm seems to be a more realistic move, as successful independent innovation is less likely than overcoming barriers to imitation. In either case, though, once real or potential competitors become aware of a successful configuration of resources and capabilities with a profitable market position, they will begin to erode the entrepreneurial advantage of the first-mover firm through relentless imitation.

As capabilities will inevitably be compromised by imitation, replaced by innovation, or made obsolete by a changing marketplace, firms must be able to update these capabilities if they are to sustain their competitive advantage. Dynamic capabilities models, as we see above, consider that capabilities evolve out of the interaction of firm and market, representing the forces of market selection working on random variations in how the firm operates. We have also seen that entrepreneurial managers may actively intervene to recombine assets and to develop new capabilities in an effort to reconstruct competition in their industries. Many strategists see that two different strategic forces must be accommodated for success in a dynamic market. In a straightforward representation of this approach, Dierickx and Cool (1989) describe separate resource and market strategies. They compare the firm to a bathtub of water—market strategies must use the existing stock of hot and cold water in the tub to deliver value in the market, while resource strategies can be compared to changing the mix of hot and cold flowing into the tub. Change does happen, but slowly. In addition, the tub has a gradual leak, a loss of competitive advantage as resources and capabilities are gradually compromised or made obsolete. Without a resource strategy to continually fill the tub, it will eventually empty and lose its ability to generate advantage in the market. In this model, barriers to imitation are related to the difficulty for a competitor to rapidly change its stock of resources—its own tub of water. Original success is related to path-dependent changes in stocks and flows of resources over time. In order to make sudden changes, massive investments would be needed to overcome diseconomies of time compression and scale (sudden massive change is expensive compared to gradual adaptation). Given that the competition does not know the precise temperature of our tub, they are unlikely to hit the right mix exactly in any case. The combination of uncertainty and size of investment suggests that competitors will be slow to undertake imitative resource strategies except in the face of very large disadvantage. When faced with an active resource strategy and changing capabilities on the part of the innovating firm, competitors are even more likely to be dissuaded from direct imitation.

So how do the disadvantaged ever win? We do observe that few, if any, firms succeed permanently. The most apparent opening develops when the innovator

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stops innovating and relies on its current stock of assets. A dynamic resource strategy is expensive and uncertain for any firm, and most firms seem to eventually turn to efficiency strategies that end in competency traps. Thus, ossification of market leaders in an ever-changing market provides possibilities for new innovation. Second, steady evolution in a gradually developing market is occasionally interrupted by periods of discontinuous, or what Romanelli and Tushman (1986) called competence-destroying, change. In a period of upheaval, building on existing capabilities is unlikely to be successful—the competency trap closes suddenly. New capabilities are demanded, and these are more likely to arise in new entrants or aggressive competitors than in established market leaders. Thus, the sudden onset of Internet-based capabilities as a major source of advantage in many industries is catching previously dominant firms flat-footed and providing great advantage to newly created firms with information age skills. How can such situations be turned to advantage? The next section of the chapter shows how configurations of strategy, structure, and market strategy can support both rent generation and capability creation. The following section discusses a variety of strategic options in a capabilities-based framework.

13.4 Capabilities and Strategic Configurations

Resource-based, capabilities-based, and similar models tie strategic success with the possession of rent-generating (primarily) intangible assets. As can be seen from Peteraf's analysis presented above, these models are essentially economic in nature. They tend to assume that efficient application of the resources and capabilities of any firm will take place in an efficient manner. However, firms do not apply their resources directly in the marketplace, but rather develop strategies, structures, systems, and people through which unique internal capabilities are converted into real competitive advantage. Strategy may be based on economic considerations, but it is not amenable to strict economic rationality. Companies may possess unique and potentially valuable resources or competencies, but fail to exploit them in the marketplace due to weak organizational capabilities in managing internal processes or complementary activities. For example, Xerox Corporation in the United States has developed many key products for electronic information systems in its Palo Alto Research Center (PARC). However, in the main Xerox failed to bring these innovative products and systems to the market when they were not directly related to its copier business. Assessments suggest that Xerox was aware of the potential value of

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the ideas that were coming from PARC, but that the company simply did not have the organizational capabilities to market products outside of its main business, even when that business was put under severe competitive pressure.

Configuration theory (Miller and Friesen 1984) suggests that competitive advantage is the result of proper fit of an internal strategic configuration with external competitive and market conditions. In a capabilities-driven system, this suggests that the firm's resources and capabilities must be matched to its strategy, structure, and systems in a coherent manner if the firm is going to have a chance at success. Internally, this means that the organization and its managers must support the unique skills embedded in the firm, and that they must follow a strategy that moves the firm in a direction consistent with its competencies. This condition of 'internal fit' is by no means a given outcome of firm operations. The more tacit and intangible the key capabilities of the firm, the more difficult they are to identify and replicate internally, and the more likely that different operating units will apply them in different and not always appropriate ways. In international strategy, Bartlett and Ghoshal's (1989) theory of the Transnational Firm reflects ideas of internal fit. These authors suggest that traditional multinational strategies will take one of three directions, accompanied by three structures and three styles of management control. Thus, a global low-cost strategy will be associated with a centralized structure, often an international division, non-strategic subsidiaries, and direct central control of the firm. A locally differentiated strategy will be best supported by a decentralized structure with much power and control in the subsidiaries, area or national strategic business units, and simple financial control from the centre. A strategy based on the central development of and rapid dissemination and adaptation of technology will be accompanied by a more balanced structure, focused on global product divisions, and supported by formal reporting systems. Finally, in the Transnational, all three strategies are combined in a matrix or network structure with high levels of corporate culture to manage the activities of subordinate managers and their units, much informal cooperation, and differentiated roles for different subsidiaries in a loose structure.

If we consider the two key aspects of capabilities-driven strategy, capability creation and capability exploitation, we find that organization is a critical but difficult consideration for top management. Capability exploiting or leverage strategies to extract rents from the application of current capabilities and resources are best supported by efficiency-focused organizations, while capability creating or building strategies require a much less constrained context (Hedlund and Ridderstrale 1992). While it is easy enough to speak of resource and market strategies, consideration of the actual implications of such dual strategies on the configuration of a single firm soon reveals the complexity of long-range capability strategy. A successful exploitative strategy is likely to reflect the cost control focus of a well-developed hierarchy, with clearly defined roles, formal communications, economic goals, and strong pressures for homogeneity. A creative strategy, on the other hand,

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must lean on a creative organization, with a project mentality, informal relationships and roles, open communication, multiple goals, and strong pressures to define and exploit divergent interests and capabilities. Major organizational issues revolve around issues of separation versus integration of such disparate processes. Separated, one unit can focus on efficiency and cash flow while the other focuses on effectiveness and product development. However, total separation risks a loss of contact with the market for new product development units and rejection of change by the efficient bureaucracy in the production units. Some contact is needed, but this must be subject to corporate controls. Managers must be concerned with the degree of separation, the level at which it exists, the means of coordinating the two areas, and the sequencing process for all activities. Degree of separation appears to best be limited, as much innovation takes place during development and production operations. Too much separation kills all but the most formal product development, and makes organizational change very difficult. Levels of separation suggest that subsidiaries might have, for instance, unique positions in the multinational firm, some serving as strategic leaders, others as implementers of the overall strategy. Alternatively, individuals within specific units might be given different tasks, while the overall mission reflects both demands. Communication for exploitation can be quite formal, as it will be primarily based on cost figures, but innovation requires multifunctional coordination and careful integration if it is to succeed. Likewise, separation can be gained by developing and then building product in a sequential process—combined with considerable openness in feedback activities. Formal structures can only be good for one of these motivations, working best in the exploitative mode, while innovative organizations require extensive, but informal and freely accessible idea frameworks. Not quite a mixing of oil and water, but certainly a challenge to manage.

13.5 Capabilities and Strategy

This section of the chapter focuses on a variety of major strategic options that regularly confront managers, addressing them from a dynamic capabilities perspective. We have already examined the impact of capabilities on profits and performance, on the relative importance of market and capability strategies, and organization structures. This section considers specific strategic issues that are more relevant to the practising manager than are abstract considerations of economic rents and the like. Strategies, at this level, are seldom

considered from this perspective in texts. They are either seen from a strategic behavior and market position point of view, or

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are abstracted completely from the underlying economics of competitive advantage. This section ties strategic decisions to capability strengths and establishes the economic basis for strategy from a capability perspective.

13.5.1 Growth Strategies and Dynamic Capabilities

Edith Penrose, in *The Theory of the Growth of the Firm* (1959), established the value of resource or management capability models to understanding the growth imperative of the business firm. Her model of the firm is often described as the basis for all resource-based models. In essence she sees the firm as consisting of bundles of assets and skills. These may include hard assets, such as patents or machinery, human assets such as scientists and engineers, financial assets such as capital for investment, intangible assets such as corporate cultures, and so forth. If these assets can be properly accessed and applied to the marketplace, the firm will be able to compete successfully. The asset or resource that makes such applications function is the 'managerial asset'. That is, the unique ability to organize the assets of the firm in a more effective or efficient manner provides key competitive advantage to that firm. In our terminology, managerial assets are perhaps better understood as the management routines and capabilities of the firm. Individual managers and executives are a part of the management asset, but the firm's competencies in organizing itself are tacit understandings of the roles of managers, the ways and means of organizing hard resources and non-strategic or complementary assets.

Penrose suggests that growth strategies are natural to firms in this formulation, as most resources are available to the firm in indivisible lumps. One cannot hire half a person, a branch exchange with the exact number of telephone lines required, or a computer sized to be always busy, but never queued up. Rather, resources are built or bought in quantities based on the nature of the asset, not the need. Consequently, the firm will always have some assets that are under-employed, some few maximized, and others stretched beyond their capacity. In an effort to improve efficiency, the firm will acquire new resources that complement those in over-supply, so that the over-supply disappears. At the same time, other resources must be increased to raise total capacity. Yet, any increase in one resource, given the above-mentioned lack of infinite divisibility, will always result in an over-supply in a new area. Thus, a constant drive for full utilization of all resources will drive the firm to expand constantly. This expansion is particularly sensitive to the existence of superior management capabilities. As such intangible resources are not consumed, but rather are improved and enlarged through application (a manager who organizes one new product development effort, for instance, will develop skills that can be applied to run multiple larger NPD projects). A consequence of the intangible nature of managerial resources and capabilities, then, is that while they are used, they increase

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and can then be applied to control or manage an ever-larger set of strategic and complementary hard resources. Thus, as managerial teams gain experience, their efficient use suggests a continual effort to increase the size of their hard asset pool.

An efficiency model of growth is considerably at odds with the typical strategic behavior model that focuses on growth to increase market power, reduce financial risks, and otherwise behave like a large, monopolistic firm. Instead, growth is the natural outcome of efforts to balance the available supplies of indivisible resources and to use efficiently an ever more capable ('larger') management team. Growth leads to dominance not by restricting competition, but by providing efficient employment of more assets—which still never actually balance exactly. The most efficiently and aggressively managed firms should grow the fastest and ultimately to the largest size. Growth is not an inherent indicator of market inefficiencies. The very dynamism that is key to sustaining competitive advantage by adapting the competencies of the firm will create conditions that demand acquisition of new resources and markets.

13.5.2 Diversification Strategies from a Dynamic Capabilities Perspective

Growth often leads to diversification as firms with excess resources and capabilities in investment capital, management talent, brands, distribution, research, and a variety of other value-adding activities see better opportunities in new industries rather than in further expansion of familiar businesses. Whether driven by regulatory limitations, entrepreneurial drive, or greed for higher returns, diversification strategies are quite compatible with resource-based or capability models of strategy. Indeed, early work on diversification strategies and organizational responses to them by Alfred Chandler in *Strategy and Structure* (1966) and others influenced the genesis of resource-based strategy and associated dynamic capability concepts. These studies considered how diversification could be an efficient response to market opportunities if backed by governance structures that could effectively control a large multi-business company. Richard Rumelt (1974), in particular, developed a detailed analysis of related and unrelated diversification strategies. He showed that dominant or related strategies in which separate divisions competed in more or less closely affiliated businesses, when tied to multi-divisional structures,

outperformed single business, vertically integrated, and unrelated diversified companies. While his original work has been challenged and defended many times, the maturing dynamic capabilities model of the firm has come to provide a widely accepted analysis of diversification strategy success.

Companies that diversify into closely related fields, especially through internal or 'organic' diversification, should be able to share certain of their resources and

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capabilities across different business areas. The closer the degree of relatedness, the more relevant existing management capabilities and routines will be to running the new business, the more human resources can be transferred with ease, and the more physical resources from patents to industrial plants to distribution networks can be shared by the different divisions. By expanding the areas of use of such resources, the firm gains economies of scope and scale. That is, it can address existing fixed investment to more purposes and use existing capacity more intensively, gaining efficiencies that reduce costs. The firm also can sell more goods and services without as much investment. In the terms introduced from Peteraf above, the firm can increase its quasi-rents from existing resources and capabilities. Related diversification can, in this picture, bring in more revenues with less new fixed investment and improve the efficiency of its existing resource infrastructure by increasing the flow of product to a wider range of customers.

Conversely, firms that engage in excessive or unrelated diversification should be less successful. Touted as a solution to financial risk, unrelated or portfolio investment by holding companies and conglomerates should provide few opportunities to improve profitability. The very unrelatedness that maximizes portfolio effects means few, if any, industry or product specific resources and capabilities can be shared across business units. Consequently, the firm may grow, but it never becomes more efficient in its operations through diversification, only through internal growth of each business unit. In addition, if top management in a conglomerate becomes involved in managing or directing the business units, it is likely to be ineffective, as the routines and capabilities that it has developed in its original businesses are unlikely to translate into good practices across the entire range of businesses. Holding companies are likely to be marginally more effective, as top management can concentrate on financial management, cost controls, and other generic capabilities while leaving operational control with the subsidiary companies.

This entire line of thought is well represented by C. K. Prahalad and Gary Hamel in their 1990 *Harvard Business Review* article, 'The Core Competence of the Corporation'. Using the term 'competence' much as this chapter uses capability, they propose that long-term success, sustained competitive advantage, in diversified firms is tied to the ability to identify, exploit, and build cross-industry core competencies. They even suggest that diversified firms consider organizing around their competencies as opposed to their end-products. As an example they cite the capabilities of Honda in producing some of the world's best small engines. Starting with motorcycles, moving to efficient automobiles, then to lawnmowers, generators, and many other small, motorized products, Honda has carried this core competence across product lines, reducing its costs and improving its efficiency at every turn. The idea, say Prahalad and Hamel, is not to confine unique capabilities to one business area, but to identify such larger competencies and spread them across the entire firm. Organizing around a few core competencies, a larger number

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of core technologies, and finally around many more saleable products is said to give the firm long-term competitive advantage.

This formulation for capabilities-driven diversification success is logically consistent, even elegant. However, many studies have questioned whether related diversification really produces significant performance benefits. The logic supporting studies that find relatedness to be less than dramatic as a predictor of success is as solid as that suggesting its success. The problem with related diversification is that its benefits do not just happen, they result from active management of resources and capabilities with potential for broader application. The management capabilities to effectively convince midlevel executives to share ideas, facilities, people, brand, money, and the like and to then manage these jointly would seem to be challenging at best. Particularly in Anglo-American companies with traditions of internal competition, such cooperation is likely to be rejected as contrary to the understood paradigm or model of competitive internal corporate relationships. Unrelated diversification, however, does not require advanced levels of operational integration. Rather, each business unit has strategic and operational responsibility for itself, and the corporate centre can focus on the relatively simple issue of financial management, applying its competencies in this area uniformly but independently. This lower level of corporate involvement, lack of complex interaction, and tight financial controls should make for much more efficient corporate control. The sustained success of Hanson, plc is attributed to just such competency at managing the financial strategies of a highly diversified holding company.

Diversification seems most likely to succeed when it involves a well-defined strategy. Internal development of new divisions around existing technologies has much to be said for itself as a means to gain operational efficiency and improve on existing skills and routines. The common corporate culture, similar expectations of management, existing relationships, and so forth suggest that cooperation and

sharing to gain efficiencies and to share resource investments have solid expectations. Acquisition to gain related competencies, though, should create problems, as the lack of shared managerial resources suggests that efficient management of the resources upon which the strategy is based will be an arduous developmental task. However, acquisition of unrelated units, to which more generic skills in corporate management can be applied directly, would appear to have a greater probability of success. The capabilities basis for successful corporate diversification strategies seems to hold up, but only with a more sophisticated understanding of the mechanisms at work.

13.5.3 Internationalization and Capabilities

A capability perspective on international strategy suggests similar effects from increasing market scope to those described above for increased product scope.

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Firms with rent-earning capabilities that have exhausted the potential of their home markets may decide to seek additional rents by entering international markets, whether through exports or direct investment, rather than moving into new lines of business. Firms with resources that can be embedded in the product, such as unique product design or technology or low-cost processes, are often able to use exports from the home market (or existing foreign markets if they are already multinationals). If exports are a problem due to shipping costs, trade barriers, perishability, or because the product is a service, the firm with an explicit, comprehensible strategic resource may turn to licensing or franchising in order to move production to a foreign location without having to manage international operations. However, for the firm that is reliant on capabilities that are embedded in the firm's structure, the only real approach to international markets may be foreign direct investment. Direct investment ensures the best application of these complex capabilities while also protecting them from compromise. So long as the firm-specific unique resources and capabilities can be applied profitably, greater international scope should generate higher performance levels. For large, very international firms the ability to manage extensive networks of international subsidiaries at low transactional cost appears to be a key capability and source of sustainable competitive advantage for successful multinational firms. That is, the network of subsidiaries may be able to apply specific capabilities to different sites to support R & D, production, distribution, marketing, sales, and service and to take advantage of tying local comparative advantage to specific bits of the firm's resource base. However, the greatest benefits often arise from the incredibly complex activity of managing the interactions of the subsidiaries, bargaining with governments, ensuring the spread of critical knowledge, arbitraging across markets for inputs, outputs, and activities, combining global and local perspectives along the value-added chain, and generally managing the multinational network that is the global firm. Thus, in the early days of the computer industry, IBM rose to a dominating position in the industry through consistent application of its capabilities in research, production, distribution, but especially sales and service activities. The company was able to transmit its formulation into a variety of foreign markets to dominate the international industry. Much of this success was due not to expertise in computers, but to expertise in organizing and managing a multinational network firm.

One difficulty with product diversification strategies is that risk reduction is usually matched with reduced opportunities for rents, as the one is enhanced by unrelated diversification while the latter is tied to interdependences that are minimized by unrelatedness. Kim, Hwang, and Burgers (1993) argue that the more 'multinational' a firm is, the greater its opportunities to leverage strategic resources and gain economies of scope across markets while simultaneously diversifying market risks, thus raising its performance levels and reducing unsystematic risk. While governance costs could presumably overwhelm the scope economies of multiple markets, the common use of national or regional profit centers in multi-divisional

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international organizations and the typically gradual or stepwise expansion of multinational firms suggest that we should expect a steadily increasing relationship between multinational diversity and performance for firms which remain in the international marketplace; otherwise, inefficiency should lead to exit. More recent studies suggest that, while the betas (relationship to market risk) of multinational firms are lower, their increased exposure to currency exchange risk actually increases variations in cash flows, the financial definition of risk.

So, traditional models of multinational expansion suggest that both international expansion and cross-national integration are tied to the possession of unique firm-specific resources and capabilities that are assessed to have rent-earning potential in larger or more varied markets. However, a growing phenomenon among multinational firms is the recognition that the international context provides an opportunity for discovering new resources or developing new organizational capabilities—for fulfilling the dynamic learning aspect of capabilities models. New markets provide new competitive conditions that may expose the firm to better ways of creating its products or demand that elicits new products. Perhaps more significant in the long run, firms operating as integrated global networks develop capabilities for operating complex organizations that are beyond the scope of experience of national companies. International expansion offers opportunities to exploit existing capabilities in a much larger market and to access unique resources in 'exotic' locations. Global integration offers the chance to further leverage existing capabilities by adding possibilities of arbitraging across factor markets, seeking

extra-national economies, bargaining from more powerful positions, and matching specific value-chain activities to the comparative advantages of multiple locations. Globalization also provides the milieu to build unique corporate capabilities among managerial assets that are not available to the domestic, multi-domestic, or simple global exporting firm.

13.5.4 Mergers and Acquisitions in a Capabilities-Driven World

One common method used by firms to diversify into new businesses or new markets is the acquisition of or merger with an existing firm in the target product/market. Mergers and acquisitions have advantages in comparison to organic or ground-up expansion: they are relatively fast as the entire organizational infrastructure already exists; they provide instant access to a share of the target market; basic assets, physical resources, routines, and capabilities are in place; the expenditure is fixed at the time of transaction as opposed to being an open-ended commitment. The frequent failure of M&A strategies, however, reminds us that this approach to expansion and diversification has disadvantages. Mergers and acquisitions, compared

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to organic start-ups, typically involve: internalization of a foreign organizational culture; in unrelated cases, basic unfamiliarity with the external competitive pressures and relevant internal resources and capabilities needed for success; in the case of related diversification, the need to integrate unfamiliar routines and capabilities into the acquiring firm in order to gain synergies; and the most basic common problem—the tendency to pay too much for an attractive target.

Capability models have a great deal to say about the uses of and also the reasons for failure of mergers and acquisitions. Acquisitions (to shorten the subject, but mergers are essentially the same) are largely a response to a perceived lack of complementary resources or of product-specific resources in a business or market. This response also implies confidence in a surfeit of management capabilities to govern the suddenly larger and typically more diverse firm. The capability logic of acquisition suggests that a company recognizes some potential in either adding new resources to its existing core competencies in a current business, in gaining capabilities to move into a new business, or in adding needed resources and skills to enter a new geographical market. Companies should first examine the possibilities of either developing the necessary resources internally or buying them in the marketplace. Internal development suggests that the gradual expansion of existing or new businesses will give the various levels of management time to adjust to new circumstances—to develop new routines and capabilities suitable to the new scope of the business. This, however, is a relatively slow process, which might well mean missing an opportunity or allowing competitors to move first. Internal growth, too, is uncertain. There is no guarantee that a firm in one business can intentionally develop new capabilities appropriate to a changing industry, nor that it can determine completely just how to extend existing competencies or create new ones to suit a new business. The basic assumptions of capabilities theory suggest that even firms in an industry or using a particular set of competencies often do not fully comprehend the reasons for their success, much less a new practitioner or entrant. Organic expansion may maintain the organization's culture and top management capabilities, but may not be of much use in actually competing in the new business.

Likewise, buying individual resources and capabilities in the market is an uncertain prospect. The many unspecialized assets needed to operate a company can be specified, priced, and bought easily, but do not offer rents to the owner. More unique physical resources such as patents, specialized process equipment, even technical assistance, can be licensed or purchased. However, the price of the asset will typically absorb its economic value, leaving no opportunity for rent generation, unless the item can be combined with a unique bundle of complementary assets and capabilities to create a unique competence. The major weakness of the market for resources, though, is that the tacit routines and capabilities that give real economic value to a set of resources are seldom available. Since these intangible know-how based resources are difficult or impossible to fully specify and are not

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amenable to easy economic analysis, they cannot be properly priced and traded. If internal development is slow and uncertain and resource markets fail for complex capabilities, a logical alternative is to acquire not individual resources, but rather the entire organization that encompasses the desired capabilities and competencies.

Acquiring a firm or a division of a firm brings the entire organization, hard assets, human resources, and organizational capabilities into the acquiring company. The organization has 'learned' a great deal in a single transaction. Or so goes the theory. A holding company buying a firm in an unrelated industry and allowing the acquisition to function independently may come close to accomplishing this objective. The acquired management takes on a new set of owners, may have a lower cost of capital, and is likely to have new pressures for greater efficiency. Possibly ineffective top management will be replaced, but operating managers usually will be retained, perhaps promoted. After all, the operating level competencies are what the acquiring conglomerate usually wants. For the skilled financial manager, such as

Hanson, plc in its glory days, tighter controls and the benefits of corporate size combined with basic operating competencies to generate high profits. However, few holding companies or conglomerates are so skilled in buying and running firms. Most fail to assess the underlying potential of the new industry accurately, do not really identify just how synergies are to be obtained in the new firm, and pay too much based on vague assessments of value and a lack of understanding of the new business.

Box 13.2 International mergers and capabilities in DaimlerChrysler

The recent spate of transnational mega-mergers is perhaps the biggest business story of the turn of the millennium. One of the most visible of these transactions is the merger of America's Chrysler and Germany's Daimler Benz in the automotive industry. A dramatic event on its own, the creation of DaimlerChrysler has set off a series of mergers, acquisitions, and divestitures among the car companies that is widely expected to end with only five or six global competitors in the industry. But was this marriage really made in heaven? Originally touted as the merger of equals with complementary capabilities in process technology product engineering and design, and market strengths, DaimlerChrysler in mid-2000 seemed like a giant with a digestion problem. On paper, and to analysts, joining mid-market, mid-American Chrysler with its growing reputation for efficient new product development, innovative design, improving mass produced quality and amazing profitability with high-end, if rather stodgy and slow, luxury manufacturer Mercedes Benz seemed to offer the synergies that are so hard to find in mergers. However, once again, the combination of different cultures and capabilities was fraught with difficulty. Top Chrysler executives, including those most closely identified with its success, are leaving rapidly, and the German top management, which has shown its hand as the acquirer rather than merger partner, seems satisfied with this. At the same time, both firms are struggling with quality problems in their highly profitable Sport Utility Vehicles, and there is little sign that Chrysler's postmodern design and new product development skills are crossing the Atlantic. At the same time, Mercedes seems not to offer much that can be used in the much more cost-conscious world of the mass manufacturer. As Ford and General Motors plan to use the Internet to improve their levels of efficiency, Chrysler's parent can offer only cost-is-no-object engineering. Can this approach compete? Will Chrysler dilute the Mercedes image while Daimler kills the innovative spirit of America's distant third member of the Big 3? Is there a real benefit in the market to DaimlerChrysler, or is this highly touted merger already on its way to a nasty divorce?

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Acquisition of competitors, suppliers, distributors, or other related companies is perhaps even more difficult. In this case, the acquiring firm may have a better sense of the value of the target firm, but is even more likely to overestimate the potential for synergy—after all, the benefits are not just from combining good, but general, financial management with strong operations, but are also the result of combining two sets of operational capabilities into a larger, more efficient, more capable unit. Or are they? If the acquirer is buying up or down its value-added chain, internalizing a parts supplier, perhaps, it may have a very clear idea of the value of the goods and services that it gets from that supplier. Just tacking another link onto the internal value-added chain replaces external market transactions, with their risk of non-performance, competing demands, information loss, and the like with an internalized and fully controlled stage of production. This sounds great, but most studies of vertical integration show that this is the most likely of all diversification types to deliver low performance. The price of the supplier should fully compensate the seller for the value of this firm if it is simply a case of internalizing a market. In this case, though, there is little to gain short term in the market for firms over that available in the market for intermediate goods—benefits to one company are paid for by added costs to the other. Long term, locking in a supplier often lowers incentives and eventually leaves the firm tied to a non-productive, obsolete source of old technology. If the newly internalized transaction is expected to provide synergies, for instance by allowing for specialized technology (the example of tying bauxite mines to specific alumina producers and to specific aluminum smelters is commonly used as an example in which the system is much more efficient if specialized), just in time deliveries, instant response, and so forth, the companies must learn to work together. Synergies require real mergers (even in a straightforward acquisition) of operating routines and rebuilding of capabilities. This is sometimes successful, but often results in one side or the other (or both) being forced to change its basic concepts, leading to loss of valuable human resources, compromise of essential capabilities, and often the loss of the very competencies sought by the buyer. Synergies are hard to develop, and even harder

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to value properly. Mark Sirower (1997) makes very clear the idea that simply combining existing value is not synergistic. Only value obtained from the combined operations that would not be available through market exchanges of resources or know-how is really synergistic. Since this is unknowable before the merger is in place (often for a considerable time), the acquiring firm often pays too much for the acquisition. Any premium over market is based on the assumption the benefits will exceed simple addition of the existing cash flows. In general, the empirical evidence of many studies shows this to be unlikely—what synergies arise are less than the premiums paid for access to them. The equity markets also believe that this is the case. In virtually every acquisition, the market value of the acquiring firm drops by an amount equal to or greater than the amount that the target firm increases in value. Equity markets believe that M & A

strategies typically result in lost value.

At issue is the value-adding potential of different types of resource. Simple resources can be priced easily and acquired individually in markets, but have no rent-generating potential. More idiosyncratic, but codifiable, resources may be purchased from their owners, but as they are not available from many suppliers, the original owner will price the resource at its economic value, absorbing any rents to the resource. Only complex tacit know-how—capabilities—is able to generate rents in a sustained fashion. If these are bought in, though, they must come as part of the organization that controls them, via merger or acquisition. Unfortunately, the desired capabilities bring along extensive baggage in the form of the rest of the target firm that may not be wanted. Inasmuch as the actual location of the key capabilities is not fully discernible, disposal of assets is risky, while retention may be costly. In addition, the changing conditions and relationships in the merged firm may well alter the efficacy of the capabilities as individuals leave, management is replaced, interactions are required with the original parts of the acquiring firm, and other circumstances change. The efficacy of capabilities may change, and hopes for synergies that require a blending of two sets of complex capabilities, neither fully defined, may well be disappointed. The more organizationally embedded are a set of capabilities, the more the potential for sustained rent generation, but likewise the more difficult and expensive the task of actually integrating them. In a situation where the purchaser often is paying for the best estimated outcome, and is likely also to be assuming that internalization, once the purchase is made, will be smooth, the likelihood of failing to obtain expected synergies, even after a greater than anticipated expenditure for integration, is high, and empirical studies reflect this. What then is the answer for the firm that needs to add to its repertoire of competencies, but does not have the time to await random development with internal growth, cannot buy in the market, and fears the hazards of acquisition and full internalization of another firm? Many analysts consider this to be the very situation that favors alliance strategies.

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13.5.5 Alliance and Joint Venture Strategies

Alliances and joint ventures—collaborative strategies—also are attractive when they provide desirable resources that a firm cannot develop within an acceptable time frame and cost structure by relying solely on its own capabilities. In forming alliances, this suggests that managers should look for firm-specific, durable, and scarce resources and capabilities within the firm and complementary resources in potential partners (Amit and Schoemaker 1993). As discussed above, both resources and capabilities have potential for generating value. Frequently, the two are complementary or co-specialized in that they are characterized by interdependence in the generation of value through bundling into even more complex capabilities and competencies. Dynamic capabilities concepts suggest that complex managerial assets are the primary source of sustained competitive advantage as they coordinate the application of 'hard' physical and human resources and provide the learning capacity which sustains competitive advantage.

The competitive advantage of collaborative strategies is related to the potential value added of combining firm-specific resources and capabilities. As we have seen, capabilities models propose that the most sustainable rents derive from tacit, organizationally embedded, socially complex capabilities which are transmissible only by sharing a part of the organization itself, and not transmissible via market transaction (Kogut 1988). These capabilities are difficult to identify and exchange because they are distributed throughout and embedded in the organization itself. However, they have the character of public goods in that they are not used up, and indeed may be enhanced, by use. Therefore, such strategic capabilities can be applied broadly without additional investment to increase the value of a variety of transactions without losing their own inherent value. The hope of synergies, that is, more than simple additive benefits of scale and scope, from combining such resources into complex new competencies makes shared organization ventures appear to be the organizational form of choice when such organizational capabilities are to be combined. This much of the alliance argument is much like that for mergers or acquisitions without loss of organizational identity in the target business.

The difficulties of learning the organizational skills represented by embedded competencies make structural forms that combine organizational systems, structures, and cultures likely for such transactions. The decision to form an alliance implies the following considerations (Madhok and Tallman 1998).

First, the firm does not possess the entire bundle of resources and capabilities needed to create the desired rent-earning competence and cannot develop the missing resources internally in an acceptable time at an acceptable cost. Dierickx and Cool (1989) show that such idiosyncratic resources are path-dependent, specialized to the history of a given firm, and may not be within the reach of other firms. Even if a firm *could* develop such capabilities, this effort is subject to

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diseconomies of scale, scope, and time as compared to the firm that already possesses them. If the firm cannot develop, in a timely and cost-effective manner, the same or equivalent skills as a potential partner, then it must look beyond its boundaries for them.

Second, markets do not adequately bundle embedded resources into rent-yielding capabilities. Markets cannot transmit such knowledge effectively, even if the value of the competency can be established. Markets are effective only at transmitting knowledge that can be fully described in an explicit manner, as in licensing a patent. Kogut (1988) has established the need for extended, intimate relationships to transmit tacit knowledge. The requisite degree of organizational integration to permit organizational learning of embedded knowledge is not available in simple market deals. The same can be said for the extended, but specified and limited, relationships of contractual joint ventures. Contractual joint ventures generally seem to involve sharing explicit resources rather than deeply embedded, 'invisible' capabilities. Such alliances do extend in time, but provide only additive benefits to explicit resources, not synergies from the combination of embedded capabilities. Synergies from an integrated bundle of shared strategic assets, by which new value *unique to the alliance* can be created, require a deeper and more flexible relationship (Madhok and Tallman 1998).

Third, if internal development and market acquisition of specific resources and capabilities are not feasible in the search for strategic assets, why should the firm not acquire and fully integrate another firm that *does* possess the requisite capabilities? The identification of complementary resources makes acquisition appear rational. However, as discussed above, fully internalizing resources is an expensive and uncertain process that may degrade or destroy the very organizationally embedded competencies most desired for the alliance. Complete takeover of another firm may bring in all the *physical* assets of the acquired firm, but the synergistic potential of its human and organizational resources are likely to disappear under a new identity. Complete acquisitions or mergers in which organizational forms, assets, skills, staff, etc. of the target firm are preserved, may provide the maximum potential gain, but face the same organizational difficulties as alliances, particularly alliances involving equity and management participation. The difference in an alliance is that the independent parent companies retain the use of their capabilities for other projects or products. Alliances in which organizational involvement is deep permit the sharing of complex capabilities (at least, this is the strategic hope), but do not require the joining of unrelated assets, irrelevant markets, people uninvolved in a specific project, or the many other aspects of acquisition that make for higher costs and greater management difficulty. Alliances permit carefully targeted combinations of capabilities and complementary resources, resulting in 'organizational learning' on a temporary basis. That is, each partner accesses the other's know-how, but only for the duration of the alliance. Or so goes the concept.

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Alliances in which organizational identities are retained permit commingling of embedded strategic assets with a partner by formally affiliating the managerial resources of the partners. They also permit combined control of resource deployment in a flexible manner by the managers of such formal alliances. Therefore, in cases where rents may be expected from bundling organizationally embedded capabilities, managers might logically expect that returns will peak for such an alliance. Yet, these expectations often are disappointed. Partnerships dissolve, joint ventures come apart. Merger partners are spun off. What is the problem?

Alliances that involve the exchange of identifiable resources such as long-term licensing, franchising, even management contracts, will exist so long as they are the least expensive means of acquiring knowledge in the marketplace. Alliances that involve non-marketable knowledge resources—capabilities and competencies—like similar acquisitions, do not have a market alternative. Their failure should result in loss of rents, as neither partner alone was, or is, capable of pursuing the product/market independently (or else, why use an alliance in the first place?). The difficulties of strategic alliances seem to be similar to those of mergers and acquisitions, with a few additional issues of their own. First, the availability of synergies is, as always, problematic. Easy to see in the abstract, synergistic combinations of complex capabilities require time, effort, commitment, openness, a willingness to compromise, ability to sort out the strong parts of each side's capabilities from the weaker and to keep the strong, and so forth in a litany of difficult implementation issues. The more complex the capabilities, the more the potential rents, but the greater the difficulty in actually creating real synergy. This much is similar to the situation in acquisitions, but is exacerbated in alliances by the ongoing relationships with the parent firms. If capabilities are to be delivered to the alliance or joint venture, managers and workers must be seconded over in order to carry tacit, embedded knowledge (if high-performing employees are not brought into the venture, as is often the case, the case for failure becomes obvious), but these employees typically do not sever their ties to the parent firm. They more commonly see assignment to the alliance venture as a temporary career step (and typically will not go willingly to the alliance if this is not the case), thus are left with dual loyalties. They have few incentives to change their perspectives, their cultures, their ways of operating, their defensiveness. Indeed, they may well be encouraged to be very careful in relating to the representatives of the partner firm for fear of compromising the very capabilities that are the basis for the alliance (more on this below). While an acquisition implies a final goal of common interest, alliances more likely entail multiple competing interests. Independent joint ventures that hire their own managers and workers can avoid this problem, but then do not bring together core competencies, but can only be a combination of equity capital and specific codifiable assets, thus offering minimal possibilities of synergy.

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If synergies are harder to find than might seem the case from listening to advocates of alliance networks in place of internalized firms,

costs are also likely to be higher. This begins with search costs. Finding a partner that can provide a critical bit of technology via a simple license is not difficult. Identifying a likely partner that has complementary and synergistic complex organizational competencies is much more difficult. The cost and difficulty are indicated by the number of ventures that end due to fundamental incompatibility—a condition that should, in a careful search, be apparent. The tacit nature of capabilities, however, suggests that only extensive investigation and openness about critical capabilities with uncommitted potential partners would solve such a problem. These conditions would be very costly, or are simply ignored in hopes that ‘things will work out’. Once a partner is chosen and negotiations begin, more careful identification of areas of synergy is feasible, but is still not easy—or ever guaranteed to be conclusive. As the costs of negotiation climb, both potential partners are likely to feel pressures to close the deal, as failure to do so will require starting over again with a new partner. Finally, once the deal is closed, the costs do not end. The slow process of integration described above is expensive, may take quite some time, and is never assured of a final positive outcome. At this stage, too, an opportunistic partner more interested in internalizing skills than in operating an alliance may be able to learn enough about the firm’s capabilities to incorporate them into its internal operations and no longer need the external access provided by the alliance. In a situation of less than total trust, both partners are likely to want to protect their own knowledge while taking advantage of opportunities to pick up some of the other’s tacit knowledge. Hardly a recipe for openness and integration needed to find synergy.

So how can alliances ever work? At times, the potential synergies may be so large as to be hard to miss. In other cases, much of the benefit adheres to more explicit resources, so limited gains are easier to generate. Firms that engage in many alliances appear to learn about executing collaborative strategies, that is, they develop capabilities at alliance formation and management. Indeed, a previous history of alliances is a remarkably good indicator of future success at such a strategy. Another instance of tacit learning is that gradually escalating commitments seem to indicate success. That is, firms that start with a simple contractual relationship, then enter an extended contractual alliance, only moving to an equity relationship when trust is established, appear to significantly increase their chances for success (such relationships can lead eventually to complete merger—with improved chances for success there, too.). It seems that building capabilities at organizational activities can be a source of indirect competitive advantage, in the sense that experience, whether in general alliance skills or with a specific partner, in collaboration permits firms to use alliances with particular competitive objectives at a lower cost and with greater probability of success.

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13.6 The Future

The previous parts of this chapter present the present status of dynamic capabilities and related—resource-based, knowledge-based, competence-based—models of the firm and of strategic management. This section considers developing trends in strategic analysis from the capabilities perspective and then addresses the direction of the model itself. The key consideration here is whether, as is the case for so many other approaches to modeling strategy, capabilities will prove a dead end in the search for a useful means of analyzing and creating strategy, or whether this dynamic, internally focused approach can continue to have value. This section will consider both the future of strategy from a capabilities perspective, and the future of dynamic capabilities and related theories as models of strategic management. The first part will consider the development of inter-firm networks as a means of accessing diffuse capabilities and building highly flexible but persistent advantage at a super-firm level. Issues of outsourcing and the virtual (or hollow) firm are particularly amenable to a dynamic capabilities interpretation, as is the expansion of global multinationals through acquisition and alliance. The discussion of the model will look to the need to incorporate dynamic capabilities models with other models, rather than setting it up as a competing approach. It suggests a co-evolutionary, but not necessarily random, world. Skills at market positioning, strategic manoeuvring, gaming, selecting real options, and so forth are capabilities if they are seen to be persistent and unevenly distributed among firms. This is not to suggest that dynamic capabilities or a related model is the universal theory of the firm, but rather that it may have useful insights to offer other models of strategy.

The most persistent trend in organizations and strategy today seems to be the idea of the firm as a network organization. This model has been applied explicitly to multinational firms at least since Ghoshal addressed the idea in 1987, but the rise of outsourcing, focusing on expertise in one part of the value chain, virtual corporations, re-engineering, and Internet-driven organizations suggests that the idea has come of age as an important general description of the business firm. The essence of these ideas is that the firm lies at the center (from its own perspective) of an extended network of organizations, bound by a variety of ties, from very tight equity relationships to quite loose informal, but persistent, arrangements. In modern network models, though, these non-hierarchical relationships extend right into the firm itself, where ownership no longer is taken to define all relationships as tight, but rather many subsidiaries and business units are recognized to experience varying degrees of control from the center and interactive ties to each other. Network models suggest that functional firm boundaries are ‘fuzzy’, or vague and somewhat uncertain.

Some business units may be much more dependent upon external relationships in order to function than they are on the center of the corporation or any other

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division. For instance, the component division of a large and diversified American multinational does key product development in integrated teams of engineers from its own laboratories and from its customers—all of which are competitors with each other. These product development teams are based on efficiency and working relationships, with no equity sharing or even formal contracts. Of particular note is the fact that one of these customers, and reputedly the least trusting and most difficult, is another division of the parent company. This internal customer is treated in the same manner as two external customers who are its primary competitors. Each is given full attention and provided with internal 'fire walls' to prevent the transfer of proprietary information among engineering groups within the focal business unit. From this perspective, just where does the 'business' end? Certainly not at the boundary of the 'firm', the wholly owned hierarchy. This is the network firm—relationships based on functional needs and efficiencies rather than ownership and formal specifications. This is the most common model for successful electronic businesses—the core holder of intellectual property, surrounded by a network of specialists in providing all other aspects of the value-added chain to the customer. As each specialist sees itself at the center of its own network, the electronic world is one of overlapping and competing networks of companies, each offering its own core competencies, but no more, to the network. Value analysis is all about unique capabilities, with little concern for market position.

The proliferation of network solutions to ever more problems suggests that capabilities will be the essential analytical unit of strategy in the information age. Market position will be important to networks of firms, but not particularly to individual firms, which will simply be embodiments of a limited set of well-developed capabilities that are applied through various contracts and agreements to a number of value-adding networks. Managers must learn to manage capabilities, not markets, and theorists must learn to describe and predict organizational strategies and forms based on their routines, capabilities, and competencies, not their market power or product differentiation.

13.7 Conclusions

The original formulation of strategic analysis suggested that a successful strategy was built on fit between the distinctive competencies of a business and the characteristics of the market that business served. Industrial Organization economics provided a formal framework with which strategists could analyze markets and competition and market position approaches to strategy came to dominate the

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strategy literature for a decade or more. More recently, though, strategy scholars have begun to examine the role of distinctive internal resources and capabilities in providing sustained competitive advantage to business firms. The resource or capabilities-based approach proposes that market positions can only provide temporary competitive advantage, as they will be copied if successful. However, complex systems of internal activities provide unique competencies that can be used in a variety of market niches to provide longer term competitive advantage. The firm that relies on dynamic capabilities can sustain competitive advantage indefinitely. Dynamic capabilities include an ability to develop new resources and skills as old ones become less effective and unique. If these capabilities co-evolve with the market, the firm can maintain a dynamic fit of internal and external conditions that is less reliant on market barriers for advantage and more concerned with developing new capabilities on an ongoing basis.

References

- Amit, R., and Schoemaker, P. (1993). 'Strategic Assets and Organizational Rent'. *Strategic Management Journal*, 14: 33–46. [Link](#)
- Barney, J. (1991). 'Firm Resources and Sustained Competitive Advantage'. *Journal of Management*, 17/1: 99–120. [Link](#)
- Bartlett, C. A., and Ghoshal, S. (1989). *Managing across Borders: The Transnational Solution*. New York: Free Press.
- Chamberlin, E. H. (1933). *The Theory of Monopolistic Competition*. Cambridge, Mass.: Harvard University Press.
- Chandler, A. D., Jr. (1966). *Strategy and Structure*. (Anchor Books edn) New York: Doubleday.
- Dierickx, I., and Cool, K. (1989). 'Asset Stock Accumulation and Sustainability of Competitive Advantage'. *Management Science*, 35: 1504–11. [Link](#)
- Ghemawat, P. (1986). 'Sustainable Advantage'. *Harvard Business Review*, Sept.–Oct: 53–8.
- Hedlund, G., and Ridderstrale, J. (1992). 'Toward the N-form Corporation: Exploitation and Creation in the MNC'. Research Paper 92/15 at the Institute for International Business of the Stockholm School of Economics.

Kim, W. C., Hwang, P., and Burgers, W. (1993). 'Multinationals' Diversification and the Risk-Return Trade-Off'. *Strategic Management Journal*, 14: 275–86. [Link](#)

Kogut, B. (1988). 'Joint Ventures: Theoretical and Empirical Perspectives'. *Strategic Management Journal*, 9: 319–32. [Link](#)

Learned, E., Christensen, R. C., Andrews, K. R. and Guth, W. D. (1969). *Business Policy: Text and Cases*. Homewood, Ill: Irwin.

Madhok, A., and Tallman, S. (1998). 'Resources, Transactions and Rents: Managing Value through Interfirm Collaborative Relationships'. *Organization Science*, 9: 326–39. [Link](#)

Miller, D., and Friesen, P. (1984). *Organizations: A Quantum View*. Englewood Cliffs, NJ: Prentice-Hall.

end p.408

Nelson, R., and Winter, S. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. London: Basil Blackwell.

Peteraf, M. A. (1993). 'The Cornerstones of Competitive Advantage: A Resource-Based View'. *Strategic Management Journal*, 14: 179–91. [Link](#)

Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.

— (1991). 'Towards a Dynamic Theory of Strategy'. *Strategic Management Journal*, 12/Winter Special Issue: 95–118. [Link](#)

Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, 68/3: 79–91.

Reed, R., and DeFillippi, R. J. (1990). 'Causal Ambiguity, Barriers to Imitation, and Sustainable Competitive Advantage'. *Academy of Management Review*, 15: 88–102. [Link](#)

Romanelli, E., and Tushman, M. L. (1986). 'Inertia, Environments, and Strategic Choice'. *Management Science*, 32: 608–21. [Link](#)

Rumelt, R. P. (1974). *Strategy Structure, and Economic Performance*. Cambridge, Mass.: Harvard University Press.

— (1991). 'How Much Does Industry Matter?'. *Strategic Management Journal*, 12: 167–85. [Link](#)

Sanchez, R., Heene, A., and Thomas, H. (1996). 'Chapter 1', in R. Sanchez, A. Heene, and H. Thomas (eds.), *Dynamics of Competence-Based Competition*. Oxford: Elsevier Pergamon.

Schumpeter, J. A. (1934). *Theory of Economic Development*. Cambridge, Mass.: Harvard University Press.

Sirower, M. L. (1997). *The Synergy Trap*. New York: Free Press.

Teece, D. J., Pisano, G., and Shuen, A. (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18/7: 509–34. [Link](#)

Wernerfelt, B. (1984). 'A Resource-Based View of the Firm'. *Strategic Management Journal*, 5/2: 171–80. [Link](#)

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14 Formulating Strategy

Cliff Bowman

14.1 Introduction

THIS chapter explains how a strategy can be formulated for a firm. The approach treats the firm as a bundle of assets, in the spirit of recent advances in the resource-based view of the firm. The objective is to help executives who have a responsibility for strategy to construct a believable future direction for their firm. The chapter puts into practice the principles of resource-based theory.

The strategy of a firm should set out the ways in which it intends to deliver future profits for its owners. Firms make profits if they possess attributes that give them competitive advantage. These firm attributes have been variously termed competences (Hamel and Prahalad 1994), capabilities, strategic assets (Amit and Shoemaker 1993; Markides 1997), or simply 'resources' (Wernerfelt 1984; Barney 1991). In this chapter we shall use the term 'strategic assets' to describe these attributes. Strategy should aim to enhance the strategic assets of the firm, those assets that enable the firm to secure profitable business. By adopting this concept of strategy, we can simplify the strategy-making process. Through the development of a strategy that focuses on the enhancement of strategic assets, executives would then know, with some confidence, what to change in their firm, what to change it to, and also what to leave alone.

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Knowing what to do strategically with an organization can derive from experience, or from entrepreneurial insight. It can also derive from analysis and this chapter describes an analytical approach that can help top teams to form their own sense of strategy. The chapter opens with a discussion of the need for strategy (Section 14.2). Then Section 14.3 focuses on identifying the firm's *strategic assets*. These strategic assets are particular to the firm, and they either help the firm to win business, or they enable the firm to deliver products or services at lower costs than competing firms. They must be distinguished from assets and capabilities that are commonly found in competing firms, which can be labeled *entry assets*; these are the minimum requirement to operate in a particular industry (Figure 14.1).

Strategic assets can be identified if two questions can be answered. First, do managers understand what customers actually perceive as *value* in the products or services the firm produces? Second, can managers identify the processes and resources that are critical in helping the firm *deliver* value? Addressing these questions will help executives uncover the firm's strategic assets.

Sections 14.4 and 14.5 set out an approach to identifying where existing assets need to be strengthened or augmented in order to improve the competitive position of the firm. In order to compete in some markets, the firm may need to acquire or develop assets that are already possessed by incumbent firms. These assets would not of themselves confer an advantage, they are necessary just to enter the game. However, once these have been acquired, they can be coupled with the firm's strategic assets to deliver a competitive advantage.

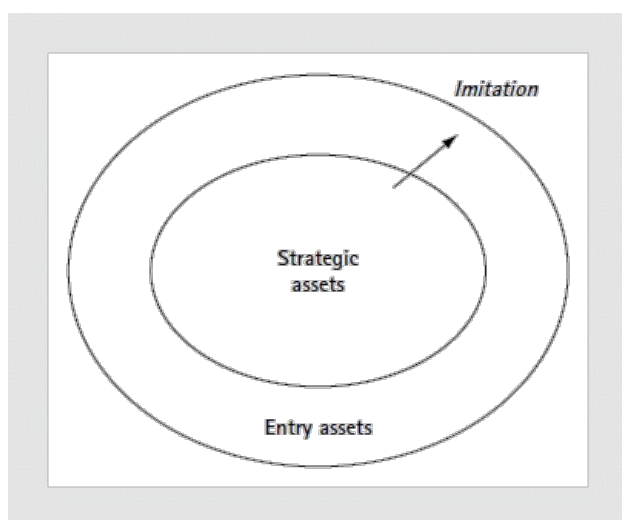


Fig. 14.1 Strategic assets and entry assets

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Section 14.6 addresses asset development. Some assets can be extended readily; others are severely constrained or only apply in one

particular market context. Any development programme needs to understand these constraints and possibilities, and the organizational processes required to develop and augment the firm's assets. Assets can be developed internally, or alternatively they can be introduced from other organizations either through alliances or acquisitions. These alternative means of development are explored in the final section of the chapter.

There are two technical notes included in the text, which summarize some relevant concepts from resource-based theory. These can be skipped, if necessary!

14.2 The Need for Strategy

This chapter is about formulating strategy. The first question we need to address is 'why would we need to do this?' All firms have a *realized* strategy: the firm is currently operating in various market segments, selling products or services, and, hopefully, showing some profits for so doing. So when we set out to *deliberately* determine a strategy for the firm, we need to understand why we are doing it.

Often an outside stakeholder in the firm provokes the need for strategy. The firm's bankers, corporate headquarters, or stock market analysts demand some explicit articulation of the firm's intentions. A common response to these stakeholders can be to provide a strategic plan of some description, which may include a vision or mission statement, a 'statement of strategic intent', a list of 'shared values' and strategic objectives, which may be 'stretching' or, indeed, 'big hairy audacious goal'. But this document is an artefact, no more. Can we expect that the intentions set out in the document will be translated into action, or 'implemented'? Often, the very people that drew up the plan recognize themselves that the plan plays more of a political role; it may not be a 'real' statement of their intentions. So, when we think about developing a strategy we need to ask the question why? If it is required to satisfy a stakeholder, then it is clear that the plan should be derived to meet their expectations. If it is for the executives trying to run a complex organization, then we might approach the task in a different way. We will assume in this chapter that a top team of executives are looking for some clarity in direction, which will help them make day-to-day decisions with more confidence. In other words, they are looking for a real strategy, one that helps them have a shared understanding as a top team, and one that can be communicated to the rest of the organization, as the way ahead.

Before embarking on any changes to the organization, it is vital that the executives understand what makes the firm successful today. Otherwise, there is a risk that strategic changes proposed might undermine the existing sources of value.

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Thus, the first step in the strategy process is to understand the firm's current strategic assets, those organizational resources or capabilities that either help the firm win business, or that help it achieve lower relative costs.

In determining the strategy for the firm, from an assets perspective, there must be clarity about the following:

- the firm's strategic assets
- the markets the firm intends to operate in
- the assets required to compete in those markets
- how those assets are to be developed or acquired.

14.3 Identifying Strategic Assets

Strategic assets are likely to fall into one or other of the five categories set out in Figure 14.2. Note, however, that it is necessary to distinguish here between assets and capabilities that might be common to most of the firm's competitors, the *entry* assets, from those that are particular to the firm, those that are critical to securing profitable business, the *strategic* assets. The entry assets can be regarded as order-qualifying capabilities, required just to operate in this market. These would be similar to the 'barriers to entry' in Porter's five forces analysis. In contrast, strategic assets are unlikely to be present in the same way, or to the same extent in rival firms. However, when rival firms are able to imitate a strategic asset, it becomes an *entry* asset, one required merely to operate in the market.

So strategic assets are specific to the firm, and they either help the firm win business, or they assist in the delivery of products or services at lower costs than competing firms. The five categories of strategic assets are:

- *Tangible assets*. This includes special equipment, locations, patents, information, buildings.
- *System assets*. These include systems and procedures operated by the firm that give advantage, e.g. operating procedures, quality assurance processes, recruitment, cost control, incentive schemes.
- *Cultural assets*. The special way 'things get done around here'; this includes aspects of behaviour like creativity, loyalty, cooperation, team-working, commitment.
- *Knowledge assets*. This includes technical knowledge, insight or performed know-how, which may be tacit.
- *Relational assets*. This includes brands, reputation, the trust of customers, power over suppliers, locked-in customers, contracts.

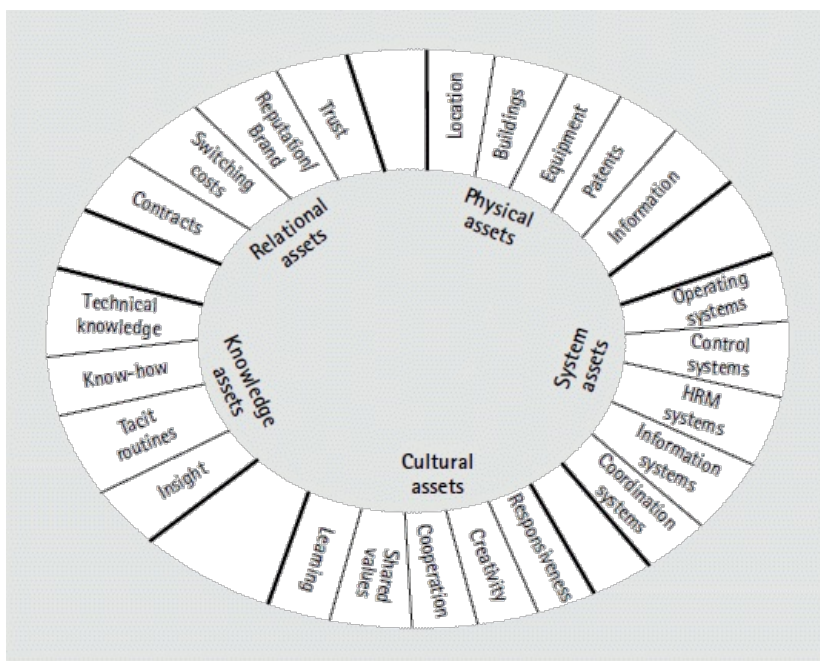


Fig. 14.2 Strategic assets: the sources of advantage

The strategic assets are combined with entry assets to deliver products or services. For example, take Metax, a petrol retailer operating in Denmark. Metax has some assets that are similar to competitors, like tanks, pumps, canopies, and car-wash facilities. These would be *entry* assets, required just to be in the business of retailing petrol. The firm's *strategic* assets would be excellent locations, e.g. on important road junctions; a swipe card payment system on the forecourt; a reputation for good value supported by distinctive and humorous marketing campaigns; and a low-cost tanker delivery system. These strategic assets enable the firm to increase market share, and to operate at lower relative costs than rival major retailers. Some of these strategic assets may be quite easy to imitate. The swipe card payment system could be adopted by competitors if they were prepared to spend the money installing it. Once this system is adopted by most competitors, it ceases to be a strategic asset for Metax; it should then be classed as an *entry* asset.

Other assets may be more difficult to copy. Their reputation for good value may be one, and the affection customers have for this local 'independent' up against the oil majors may be another. The low-cost delivery system may also be difficult to match, as it relies on a particular culture fostered within Metax by the two founders

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of the business, which allows the tanker drivers a great deal of autonomy in determining how they replenish 'their' filling stations.

Where a firm has a dominant competitive position we would expect that the majority of the firm's assets would be classed as strategic. Where a firm has a weak position in a market it possesses few strategic assets, it is a 'me too' player that is losing share. This can come about through the firm misreading the marketplace and failing to develop appropriate assets, or through the firm failing to continually upgrade its assets in the face of more committed competitors.

So here we can see how entry assets and strategic assets coalesce, how, through competitive imitation, strategic assets get downgraded into entry assets, and how sustained advantage can be achieved through the possession of assets that are difficult to copy. In the next section we explore ways of uncovering the firm's strategic assets.

14.3.1 Uncovering Strategic Assets

14.3.1.1 Technical Note 1: A Summary of Resource-Based Theory

In this brief technical section we link back to resource-based theory arguments before setting out how this approach can be made

operational.

Resource-based theory (RBT) argues that resources that are valuable, rare, inimitable, and non-substitutable (the 'VRIN' conditions) are the source of rents, which when captured by the firm rather than by resource suppliers, can lead to super-normal profits (Barney 1991; Wernerfelt 1984; Dierickx and Cool 1989; Rumelt 1984). Although these conditions (Eisenhardt and Martin 2000; Grant 1996) are often treated as a package, we need to explore them in turn to clarify the underpinning arguments of RBT.

Valuable: for a resource to be valuable it must be contributing to the provision of a product or service valued by customers (Bowman and Ambrosini 2000 Priem and Butler 2001). There must be a revenue stream attributable to, or flowing from the resource. The product must deliver consumer surplus to customers otherwise a sale will not result. But this is a necessary but not sufficient condition, because before the resource can be judged valuable in the RBT sense, it must be generating rents, which form a part of the super-normal profit stream captured by the firm. A resource can make this valued contribution by either:

- enabling the firm to sell more products from the same capital base as rival firms and/or
- enabling the firm to sell at a margin greater than rival firms.

The margin advantage can result from lower unit costs combined with equivalent prices, or from higher prices at equivalent unit costs, or, of course, from a combination of these. Therefore, we conclude that resources are *embedded* in the processes

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of production. A key part of the RBT argument though is that the value of a particular resource may be enhanced if it is combined with other complementary resources (Dierickx and Cool 1989). Thus, there are synergies within particular resource bundles.

Rare: the relative scarcity of the resource means that the firm possessing it can generate either superior margins or superior sales volumes off of an equivalent cost base to competitors. Thus, a resource is special, and is not commonly found across other competing firms. If it is common, it should be regarded as an *entry asset*, not a resource. To judge rarity there must be a set of competing firms with, presumably, similar asset bundles, that can act as a benchmark.

These two criteria should help us identify the *resources* or strategic assets of the firm at a point in time. The next two VRIN criteria address the sustainability of the rent streams into the future.

Inimitable: the more difficult it is for competing firms to replicate the resource the longer lived will be the rent stream accruing to the asset. Barriers to imitability include causal ambiguity and path dependency (Dierickx and Cool 1989). Judging this criterion requires insight into the nature of the resource in question, and how it was *created*.

Non-substitutable implies that the use-value or effect of the resource cannot be produced using other means. Assessing substitutability may require an understanding of the *use values* delivered by the resource.

Thus, we can feasibly conduct an audit of a firm *at a point in time* and identify at least some of its resources or strategic assets by operationalizing the first two of the VRIN criteria (Ambrosini and Bowman 2001). So judgements about resource value must be linked directly to the current profit streams of the firm, and the rarity of the asset can only be judged through a thorough knowledge of competing firms. As argued above, judgements about inimitability and non-substitutability require foresight, combined with some understanding of how the particular resource was created. These last two conditions are problematic. We know that at least some resources display *causal ambiguity*, that is, it is difficult for competitors to unravel how the firm operates in this superior way. This property of a resource therefore prevents competing firms from replicating the resources concerned. But as Lippman and Rumelt (1982) have argued, causal ambiguity can exist *within* the firm, and Barney (1986) points out that many resources are acquired more by luck than the exercise of managerial judgement. Reliable foresight is of course a very scarce commodity, and given the turbulence and unpredictability of many industry environments, this quality is likely to be even scarcer than it might have been in the past. To conclude, resources that pass the VRIN test are:

end p.416

- embedded in productive processes at the SBU level
- involved in delivering competitive advantages to the firm
- manifested in product advantages perceived by customers or
- conferring process advantages which deliver lower unit costs.

So, adopting a resource-based approach requires insights into, among other things, what the firm provides that is *valuable* in the eyes of customers. In the next section we explain a practical tool that helps develop insights into customer-defined value.

14.3.1.2 Understanding Customer Value

A starting point in trying to understand the firm's resources or strategic assets is to figure out how it currently wins business. This can only be done by *really* trying to understand how customers make purchase decisions. We could make educated guesses here, but there is a strong chance that we could misunderstand our customers' behaviour. We may, as a group, share a set of assumptions about customers and their needs, which may not actually reflect their true perceptions. For example, Figure 14.3 was constructed by a group of senior executives from a major European tyre manufacturer. The tool they used is a *perceived use value* chart. They were trying to understand their position in relation to competitors. To do this they tried to model the views of a target customer, in this case a 40-year-old Italian professional man, who was evaluating alternative suppliers for replacement tyres for his BMW 5 Series.

The critical feature of this chart is the list of assumptions they made about the dimensions of value that are important to this customer, listed across the horizontal axis of Figure 14.3. In discussion with these executives it became clear that the list and weightings of these dimensions really reflected the *managers* views rather than those of the customer. The danger here is clear. We as managers may appreciate product features that are not valued in the same way by customers. This is a particular problem in industries where executives have a strong 'technical' background. They are excited and impressed by the technical features of their products, and they assume that the customer values these features in the same way. When the firm conducted some market research this revealed that many customers assumed most branded tyres were equivalent in their performance, and many relied on dealer advice in making their choices. This research also revealed that there were important differences across national cultures in the awareness of and interest in tyre performance.

The point here is that, in the absence of market information, these executives would probably identify their technical competence in tyre development as a *strategic* asset, one that is critical to them winning business. In reality, their technical capability is matched or exceeded by their major competitors, and the real strategic assets of the firm are its brand name, and a loyal dealer network, supported by efficient distribution systems. The tyre development capability would be an *entry* asset in this case, not a strategic asset.

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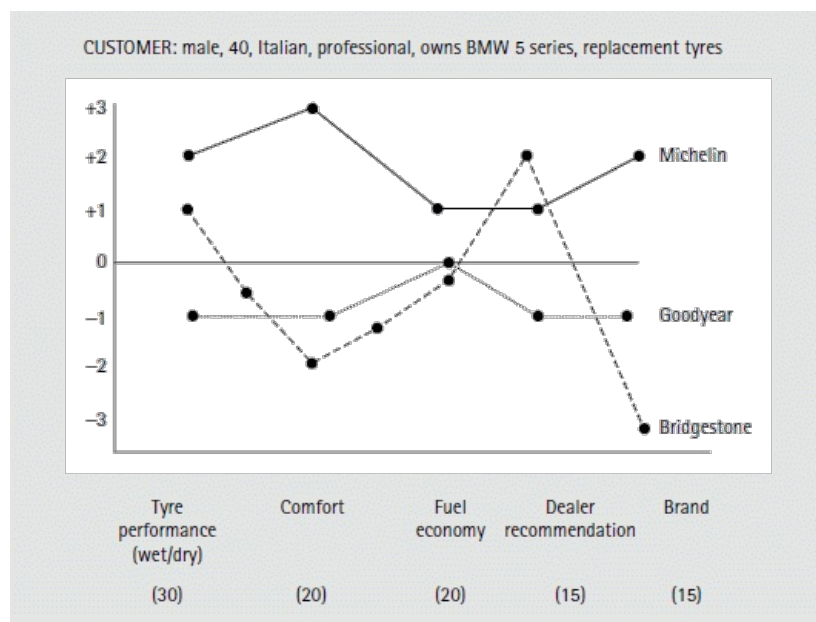


Fig. 14.3 Dimensions of perceived use value: Tyres

The only way to get reliable information on customers' perceptions is to engage in a dialogue with them. This can be done through focus groups, professionally conducted, that move beneath the obvious and tap into the underlying perceptions and motivations of customers. Alternatively, it is possible to glean valuable information through routine interactions. Where the organization has regular contacts with customers, these can be used unobtrusively to build up a picture of their perceptions of your performance and their views of competitors. This is especially appropriate in business-to-business selling. Note that the contact points for this intelligence may be at quite 'low' levels of the organization. This suggests some implications for how the process of formulating a competitive strategy should be managed. For example, the process may well need to involve staff involved in operations, sales, and service activities, because the required information may be at these levels, not with the senior executives.

14.3.1.3 Constructing a Cause Map

When an order-winning dimension of value is uncovered, it is useful to analyse *how* this dimension was produced. Using, for example, a recently secured sales contract as a 'critical incident', it should be possible to map out the causes of this success in a *cause map*. As explained above, to do this properly it is necessary to *really*

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understand the criteria that were important to the customer in their purchase decision. Sometimes decisions are taken on criteria that may not appear to be 'objective' or 'rational'. Furthermore, customers may not be willing, or readily able, to explain their decisions. However, some attempt must be made to establish what the firm's order-winning attributes were, and then these can be used to start the mapping process (see Figure 14.4). By carrying out the process for most major products and customer types a picture should emerge of the firm's strategic assets.

Initially, the cause map should be constructed for a particular product/customer combination. For example, Ambient Media, who sell advertising space inside grocery stores in the United Kingdom like Tesco and Sainsbury, recently secured an important contract with Nestlé, beating off tough competition from three other, very credible, short-listed firms. The senior managers learned from the customer that the critical difference between their offer and those from competitors was that they had secured exclusive licence agreements with the major store groups. The team

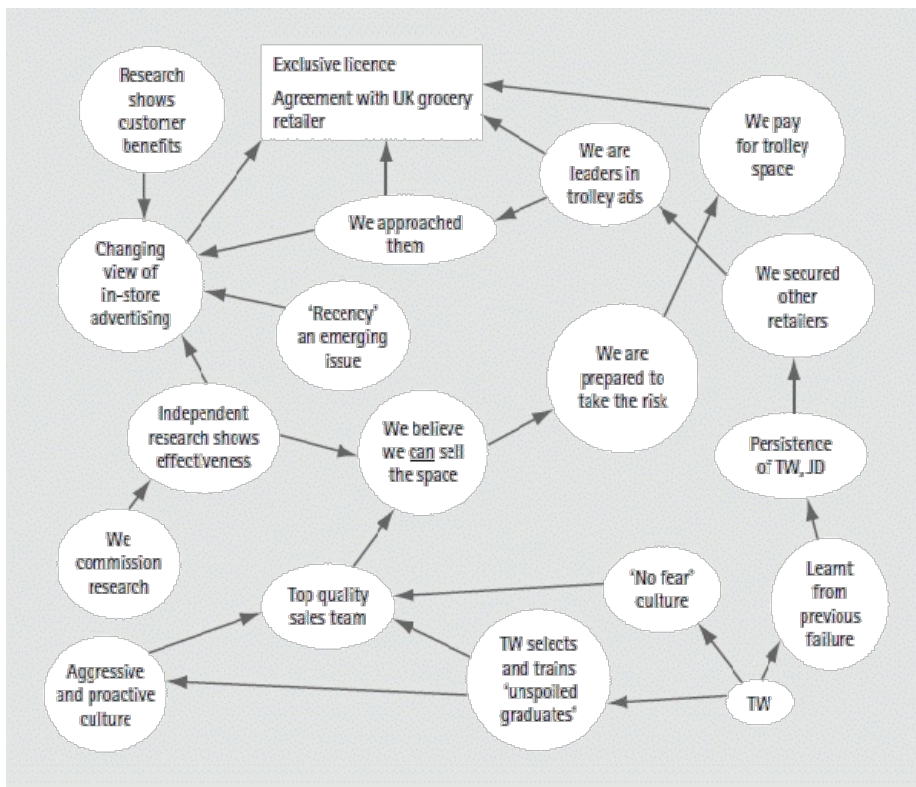


Fig. 14.4 Cause map

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then tried to understand what had given them this advantage. Part of their cause map is included in Figure 14.4 As a 'cause' is uncovered, the questioning process then required the team to explain what caused this to happen. By digging deep inside the processes of the firm, they realized that the culture of the sales team was critical. It also surfaced how critical one member of the group was (TW).

So the cause map tries to trace back inside the organization to uncover the processes that deliver advantage. Often these maps reveal how critical particular individuals or groups are to winning business. In many markets the products on offer are perceived by the customer as equivalent, and business can be won or lost on the basis of quite subtle differences in the product *surround*.

From the customer's perspective, these order-winning attributes could be, for example: 'we established a good rapport with your lead

consultant', or 'your sales people took the trouble to listen to us', or 'you have a track record for delivering these difficult assignments'. Therefore, it is likely that through the cause mapping process strategic assets will be uncovered that fall into the *cultural*, *knowledge*, and *relational* asset categories of Figure 14.2. In some cases the cause mapping process will reveal few surprises, and in others they will merely confirm the intuitive understandings of experienced executives. However, in certain situations, some important insights can emerge, which challenge received wisdom in the firm. These can take the form of:

- a challenge to implicit assumptions about why the firm wins business
- an awareness of sources of advantage that were not well understood by senior management
- an appreciation that some sources of advantage are very complex, and are not easily managed.

This is clearly a very 'fine-grained' analysis, which, on the face of it, would appear to be unnecessarily detailed, and not at all 'strategic'. The point here, though, is the need to establish a solid understanding of what gives the firm current advantage. This must be done in a way that works back from actual successes, reflecting, as far as possible, customer's perceptions of relative value. Otherwise, there is a danger of the management team either making inappropriate assumptions about the nature of the firm's advantage, or basing their thinking on broad generalizations, e.g. 'our reputation for quality'.

14.4 Identifying The Required Assets

As explained above, strategic assets are involved in securing and delivering profitable business for the firm. In this section we explore competitive strategy and the

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assets required to pursue different strategies. The starting point for understanding competitive strategy is the customer's definition of value for money, and their perceptions of the products competing for their cash. These can be explored using the Customer Matrix, which is constructed from the perspective of an individual customer.

To win a customer's business the firm must offer a package perceived to be superior to alternative offerings, to offer more 'Value for money'. Value for money is a subjective judgement the customers make when they assess the use values on offer in the products or services, the prices charged, which they then compare with alternative providers. The 'value for money' judgement they make is the difference between what they would be *prepared* to pay for the product, less the price charged. This is what an economist calls *consumer surplus*, so another way of describing 'Value for money' is consumer surplus. We make a sale when we offer more consumer surplus than a competitor. Superior consumer surplus can come about in two ways:

- the use values or utility of our product is superior to competitors
- the use values we offer are equivalent to competing offers but the price we charge is lower.

Of course, we could also offer both of these benefits at the same time. We can use the Customer Matrix (Figure 14.5) to explore the implications of pursuing alternative competitive strategies. This device can also be used as an analytical tool, which builds on the perceived use value chart in Figure 14.3.

14.4.1 The Customer Matrix

The Customer Matrix is derived from the perceptions that customers have of the products/services being offered to them and the prices that they are being charged. The vertical axis of Figure 14.5, 'Perceived Use Value' (or PUV), refers to the value perceived by the buyer in purchasing and using the product or the service; the horizontal axis is Perceived Price. Perceived Use Value and Perceived Price represent the two components of 'Value for money'; the Customer Matrix separates these out to assist us in analysing competitive strategy. Perceived Price refers to the elements of price that the customer is concerned with. For example, in purchasing a heating system for a house the customer may be not only concerned with the initial cost of the installation, e.g. the price of the boiler, radiators, and installation, but he or she may also be interested in the running costs of the system over the years, like fuel costs, maintenance, etc.

A Customer Matrix can only be derived from the perceptions of a single individual. We would all have slightly different perceptions of the same collection of, say, family cars. What we would be looking for in terms of perceived use value, or utility,

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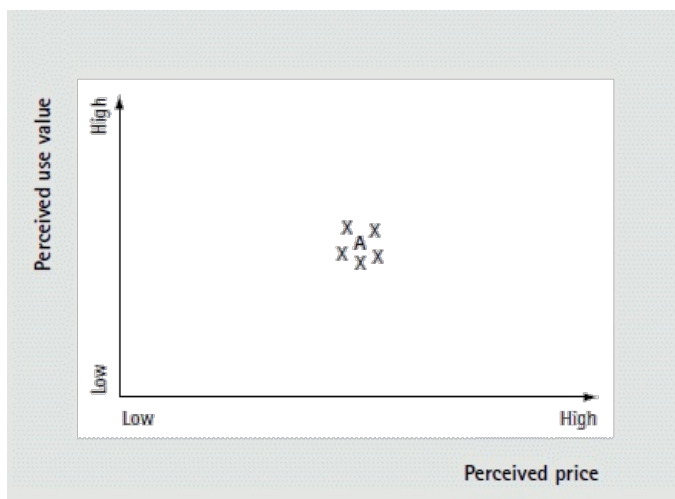


Fig. 14.5 Customer matrix

from the purchase of a car would be different from one customer to the next. What elements of price we pay attention to would also vary. For example, one customer might regard insurance and running costs as a vital cost element, whereas another customer would be more concerned with initial purchase price, and the likely rate of depreciation over two years of ownership. How we individually assess alternative products will also vary. This means that, in trying to understand customer behaviour we must be prepared to recognize that there may be important differences between potential customers.

In order to develop an argument about competitive strategy, we will show the positions of products from the perspective of a representative customer in a segment. In Figure 14.5 the 'Xs' represent the positions of products in the matrix. As far as this customer is concerned all the firms are offering more or less equivalent products, and are charging very similar prices. This situation can be found in many industries, not just those that are supplying obvious 'commodity' products like gasoline or car insurance.

If Firm A is facing the situation depicted in Figure 14.5, what are the options available for improving its competitive position? The firm could cut price by moving westward in the matrix, or it could raise the perceived use value of the products or services it offers (moving northwards), or indeed do both at the same time, a move north-west. These basic strategy options will now be explored.

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14.4.2 Cutting Price

Here the firm moves *west* in the customer matrix, offering the same perceived use value as the competition, but at a lower price (see Figure 14.6). Such a move should lead to Firm A gaining share. This move may not only increase sales for Firm A; it may expand the market as a whole, if new consumers are attracted by the lower prices. However, other firms are likely to respond to the move by cutting prices to match Firm A to preserve their share of the market, or they may even undercut Firm A. Other things being equal, the net result of the competitors moving west with Firm A is to reduce average price and profitability in the industry.

Competitors can, then, imitate Firm A's price-cutting strategy very rapidly, over-night if necessary. How then can Firm A hope to gain an enduring advantage from competing on price? In order to achieve a sustainable advantage, Firm A must be able to continually drive down prices and be able to sustain lower prices for a longer period than its competitors. This can only be achieved if Firm A has either the lowest costs in the industry, or if the firm is able to sustain losses for extended periods, through subsidies from another part of the corporation, or from a government. If a firm is not the lowest cost producer, then the competitor that *is* lowest cost can always cut prices further, or sustain low prices for longer than Firm A. So, if a firm chooses to compete on price it needs to have lower costs than its competitors. This involves exploiting all sources of cost reduction that do not affect perceived use value, e.g. economies of scale, learning from experience, 'right first time' quality, just-in-time manufacturing. Thus, the strategic assets that are required to pursue this strategy are likely to be:

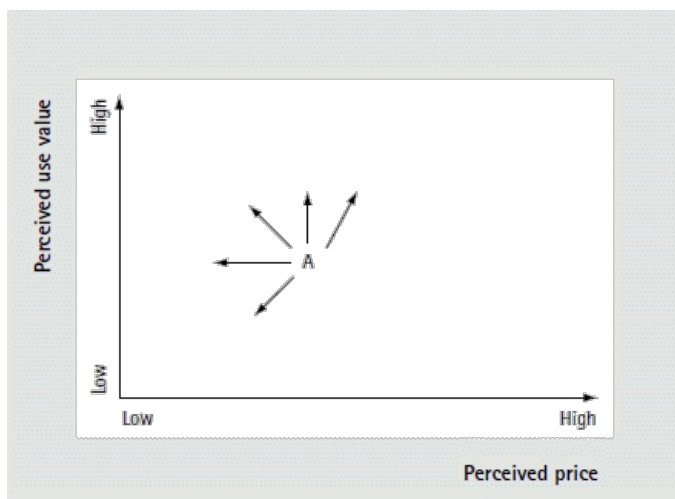


Fig. 14.6 Moves in the customer matrix

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- **Tangible assets:** efficient scale production facilities; access to low-cost labour.
- **System assets:** quality assurance, cost monitoring and control, efficient procedures, low-cost support services.
- **Cultural assets:** an emphasis on lean production, efficiency highly valued.
- **Relational assets:** power over suppliers.

If a firm is able to achieve the lowest cost position, it could choose to drive out competitors by sustaining very low prices. If, in the course of pursuing this strategy, the firm is able to establish strategic assets that prevent other firms from competing effectively, it could then opt to raise prices, and hence profits, confident of its ability to see off any potential entrants. But, if not, a subsequent rise in price would lead to re-entry by previously defeated competitors and perhaps by other new entrants.

14.4.3 Adding Perceived Use Value

The second basic strategy indicated in the Customer Matrix is the move *north*: gaining advantage through adding more perceived use value for the same price as the competitors' offerings. The starting point for this strategy must be the target customer, and the target customer's perceptions of value. In order to effect this move north, rather than it resulting from luck, or trial and error, we must be clear who our target customers are. We must then have a thorough understanding of the target customer's needs, and how that customer evaluates different product offerings.

The customer uses various criteria to evaluate the extent to which a particular product can deliver a particular dimension of PUV. For example, how is 'performance' in a car evaluated? For some customers acceleration is critical, which may be assessed by inspecting the 0–60 mph statistics; for others it is top speed that counts. More interestingly, how is 'build quality' assessed? The customer may make inferences about build quality by interpreting the sound the car door makes when it is closed. Build quality might also be assessed by inspecting the alignment of body panels, or the paint finish. These may actually be very poor indicators, or poor proxy measures of build quality. However, as customer perceptions are paramount, it is essential that the firm understand what criteria the customer does use in making these evaluations, even if the customer is 'wrong'.

By systematically exploring customer needs and perceptions through market research and by continually listening to customers, firms can discover what is valued in their products and services and what could be added to them to improve perceived use value.

In Figure 14.7 a car manufacturer's product is the benchmark against which the three closest rival cars are compared. The customer is our Italian BMW owner. It appears that the firm's car (product V) is seen to be inferior to the competition on the

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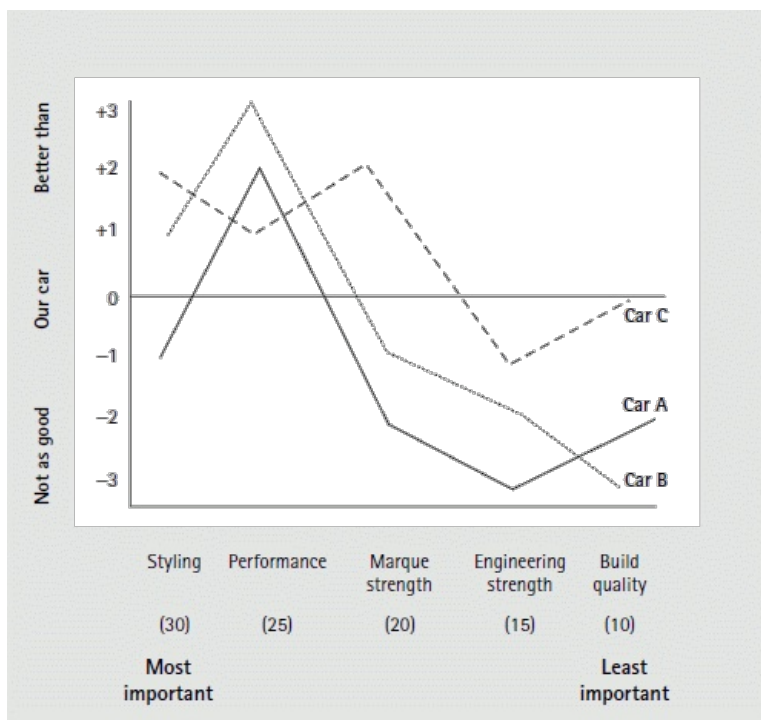


Fig. 14.7 Dimensions of perceived use value: car

really important dimensions, but it performs well on the less valued dimensions. If this firm is to move north in the customer matrix, then it either has to significantly shift the consumers' perceptions of its car's performance and styling, through changing the product, or maybe through changing perceptions through better advertising. A more ambitious strategy might be to try to shift consumers' perceptions of the dimensions of use value. For example, it may be possible to persuade the target customer that reliability is more important than styling. Either way, unless the firm improves its position relative to the competition on these dimensions of perceived use value it will lag behind its competitors. In a below average position in the Customer Matrix, the firm may find itself forced to cut price to try to preserve sales.

14.4.4 What Happens Next?

As with the price-cutting strategy, the key issue facing a firm pursuing a strategy of adding perceived use value is the ease with which competitors can match its move

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north. As a firm moves north by increasing perceived use value ahead of its competitors, it should be rewarded with an increased share of the market. The duration of this enhanced position will depend on how easily the added perceived use value can be imitated. Over time, it is likely that competitors will be able to imitate the move north by either acquiring or developing the required assets, and, as they follow the innovator northwards, the *average* level of perceived use value in the market is ratcheted upwards.

Thus, in most industries the minimum acceptable standards of PUV are being continuously shifted upwards as competitive moves become imitated: 'order winning' features become 'order qualifying' features. For instance, anti-lock brakes and air bags are features of cars that were once order winning, that are now required just to be in the game. So the assets that now deliver these features are entry assets, not strategic assets. Thus, the issue of sustainability of competitive advantage needs to be considered against this backdrop of continual northward shifts in the competitive arena. What can the innovator do once the competition has caught up? There are two basic options: keep moving north by staying one jump ahead of the competition through innovation, or move west through a cut in price.

But we argued earlier that, in order to compete on *price* the firm needs to be the lowest cost producer in the market. So, can you move north by adding perceived use value, and simultaneously achieve the lowest cost position? If the move north increases market share, and if these share increases are translated into lower unit costs, through developing scale and experience assets, then there is no reason why the move north could not result in a low relative cost position. Strategic assets like 'right-first-time' quality systems can deliver higher PUV and simultaneously lower costs.

Furthermore, if you *really* understand what it is that customers perceive as value in your products or services, you can confidently strip

out everything that does not feed through to perceived use value. There is no point in offering a range of costly options, if this is not really what customers want. Of course, if you are not confident about what customers' needs are and how they evaluate alternative products then, to play safe, the tendency is to leave everything in the product, because you are not sure which parts of the total package are the valued features.

Thus, the strategic assets that are likely to be critical to a strategy of adding perceived use value are likely to be:

- **Tangible assets:** customer information.
- **System assets:** quality assurance, operating systems, service delivery systems, to enable valued products to be delivered at low cost.
- **Cultural assets:** innovation and creativity, and a genuine customer orientation.
- **Knowledge assets:** special expertise or know-how.
- **Relational assets:** loyalty, reputation, strong brand.

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14.4.5 Other Competitive Moves

If the firm offers higher perceived use value, but demands a price premium for this added value, then this moves the firm's product position to the *north-east* in the matrix (Figure 14.6). The success of this strategy depends upon the existence of a group of buyers who are prepared to pay higher prices for the added perceived value. It also depends upon the ease with which the added perceived use value can be imitated. If it can readily be imitated by competitors, then the price premium may be rapidly competed away. One other point to note with this move to the north-east is that it may well be shifting the firm's product into a new segment, where customers have different dimensions of use value, and where they may perceive your firm to be competing with different competitors. Moving into this unfamiliar ground can prove to be risky.

The move *east*, in Figure 14.6 has the firm increasing price without adding perceived use value. This move can succeed in increasing profitability only if competitors follow suit. If the move is not followed by competitors, then market share will fall.

Moving *south-west*, by cutting price and perceived use value, is a diagonal move, which may well shift the firm into a new market segment. For example, if a car manufacturer located in the middle ground of the car industry (e.g. Ford) took this route, it would be moving to a down market position. Whereas Ford's competitors might have been Toyota, Nissan, General Motors, and DaimlerChrysler, they would now find themselves being compared by potential customers with Hyundai, Daewoo, and Proton. This may be a viable shift as long as the relative cost position of Ford enabled them to operate profitably against these low-price competitors.

The only direction that is guaranteed to deliver an increased share is a move *north-west*, adding value and cutting price. The firm must be the lowest cost producer, and it must be able to move faster than the competitors to sustain its relative position. Typically, however, a competitive firm will move north initially by adding value, then when competitors imitate the added value the firm shifts west by cutting price. The share advantage gained through moving north may well enable the firm to become the low-cost producer through the achievement of scale and experience economies, making the price-cutting strategy feasible. So the north-west position is reached by moving north, then west.

Movements in the Customer Matrix are determined by changes in customer perceptions of price and perceived use value. Shifts of particular products in the matrix can occur even when the producing firm does nothing. If a competitor is able to move its product north by adding PUV, then this has the effect of pushing other competitors' products *south* in the eyes of the customer. Products can be repositioned through changes in customer tastes and preferences, which can alter the dimensions of PUV seen to be important by the customer. This may result in products well endowed with the preferred dimensions of PUV moving further north.

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14.5 Improving Competitive Position

The Customer Matrix analysis should reveal dimensions of PUV the firm may need to improve. Currently the firm is combining its strategic assets with the common entry assets to deliver a package of value to customers. In relation to the Customer Matrix, strategic assets either help the firm to differentiate itself from competitors by adding PUV, or they help to deliver equivalent PUV to competitors, but at lower cost. Clearly the same asset could provide *both* advantages, e.g. a strong brand or operating systems that deliver 'right first time' quality.

To attract more customers and to retain current customers will require these assets to be augmented in some way. In Figure 14.8 three categories of assets are depicted which need to combine to deliver future advantage in this particular market. The three classes of asset are *entry*, *strategic*, and *required assets*. What assets

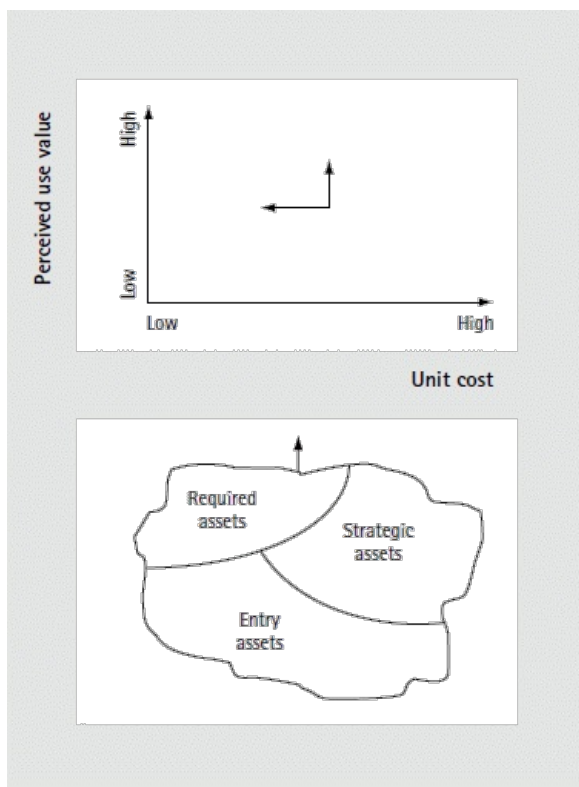


Fig. 14.8 Required assets

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specifically need to be developed could be gleaned from a further cause mapping process. By identifying dimensions of value where the firm lags behind competitors, a cause map can be constructed which combines actions and resources to close the perceived gap.

Where the firm is in a strong competitive position attention must be focused on *the future* of this market. Markets are in a continual state of flux: customers' needs change, competitors improve their positions, and new firms can enter the market. Managers need to form a view about the likely nature and direction of change in each of its major markets. This involves some form of forecasting, a notoriously treacherous exercise even in relatively stable markets. But nevertheless some views of the future need to be formed that are convincing to the managers involved. Outside agencies can help here. Scenario building can be used as well as more conventional PEST analysis. The critical point here is that the future view of the market must be credible otherwise it will not cause the managers of the firm to change what they do.

Recently, a good deal of attention has been focused on discontinuous or catastrophic changes in markets. The advent of e-commerce might be an example, except, of course, that this is now with us, and firms must find ways of adapting to this new environment and exploiting it. If discontinuities are forecast which require 'transformational changes' to the firm, it may well be the case that the firm is unable to effect these changes. Moreover, by diverting resources in an attempt to achieve radical changes, the firm may find itself suffering difficulties in its current operations. Few organizations are able to completely transform themselves. This type of radical change would probably require the development of new entry assets and new strategic assets, whilst simultaneously funding these developments from the existing asset base. Rather like the answer to the traveller's question 'how do I get to Limerick?' the answer may well, rightly, be 'well, I wouldn't start from here if I were you!'

14.5.1 Identifying Required Assets: An Example

A global engineering group (we shall call it EngCorp) recently conducted an analysis of its markets and the assets it required to compete in the future. The executives realized that they had few *strategic* assets. Although they had large R&D departments, excellent manufacturing facilities, and a broad range of up-to-date products, so did their two main global competitors. So these were *entry* assets. Through the cause mapping process, based on analysis of recently won contracts, they identified five strategic assets:

- a reputation for never walking away from a customer's problem

- excellent 'fire-fighting' or trouble-shooting skills
- a strong safety culture that pervaded the whole organization

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- the workforce were proud to work for EngCorp
- good relationships with governments.
However, they believe that much of their basic engineering and manufacturing work will be undercut by lower cost producers in developing countries, particularly India, and South-East Asia. Their conclusion is that the engines they make will become a commodity, and they need to transform themselves from being manufacturers to being system integrators, providing complete solutions to their customers rather than just good engines. To achieve this new assets will need to be developed. Specifically, they need:
- a common platform for all their engines
- common systems across the four divisions
- a culture of collaboration to share know-how across the divisions
- excellent quality assurance processes, particularly with suppliers as basic engineering and manufacturing is outsourced
- programme management capability.

The first three assets can be developed, if there is the political will to do this. They have excellent QA systems in-house, but because they have traditionally manufactured over 80 per cent of the components in an engine, they do not have great experience of establishing strong QA systems with their suppliers. Programme management is an essential skill if they are to be credible providers of integrated systems to their customers. A recent acquisition contains some of this capability, but this know-how relates to the construction industry. We shall now explore how a firm, like EngCorp, can augment its asset base.

14.6 Augmenting the Asset Base

Adding to the firm's stock of assets raises issues of corporate-level strategy. For example, the resource base may be augmented by acquiring another firm, or it may be developed by processes that transfer expertise from one part of the organization to another. These activities are usually conducted by the headquarters or corporate centre. Within the resource-based theory, asset development processes have been described as dynamic capabilities. The technical note which follows summarizes the argument.

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14.6.1 Technical Note 2: Dynamic Capabilities

This note explains recent developments in resource-based theory that address the processes of resource creation. The term *dynamic capabilities* has been coined by Teece, Pisano, and Shuen (1997) to describe organizational processes that are designed to enable firms to adapt to rapidly changing competitive environments. These processes could be viewed as operating at both business unit level and corporate level. The essential differences between a corporate structure and a single firm is that the corporation comprises more than one line of business, and that there is usually a distinction made between business level (or SBU) activity, and activity performed at the centre or headquarters.

If corporate-level activity is to be valuable, it must in some way impact positively on SBU resources. Teece et al. (1997) explain that dynamic capabilities have three roles: coordination/integration, learning, and reconfiguration (Teece, Pisano, and Shuen 1997: 518). These capabilities have been built rather than bought in the market, and they therefore tend to be embedded in the organization. These capabilities are path-dependent *routines*.

Following on from the original Teece et al. paper, Eisenhardt and Martin (2000) argue that the value of dynamic capabilities for competitive advantage lies in their ability to alter the resource base: create, integrate, recombine, and release resources. They suggest examples of such capabilities: product development routines, strategic decision-making, routines for copying, transferring, and recombining resources, resource allocation routines, connecting webs of collaborations to generate new and synergistic resource combinations among businesses, matching or realigning businesses to changing markets, knowledge creation routines, and alliance and acquisition routines.

RBT explains the resource stock of the firm at a point in time. If the firm's environment shifts, the value of its resource stock will change; it may increase or decrease. Dynamic capabilities are an organizational response to the problem of environmental change, whereby the resource stock is refreshed in line with the environment. But these change processes themselves are *stable* routines, embedded in the organization. This is a key feature of the dynamic capabilities argument. So we can distinguish between *resources* that are stable (the standard RBT argument), and *resource development* processes that are stable (dynamic capabilities).

From the discussion of RBT and dynamic capabilities, we can distinguish between the stock of resources at a point in time and processes that add to this resource stock. Dynamic capabilities either create new resources or leverage existing assets, which in essence means that a 'new' resource is introduced into another SBU context. We can therefore surmise that the centre can either be involved in creating resources through leveraging existing resources or by *creating new* ones. Or, putting it more starkly, for the centre to be valuable it must either *be* a resource or *create* resources in SBUs.

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If the centre's role is that of a resource, or a collection of resources, the problem of resource management at the centre is the same as it would be at SBU level: how to ensure that these resources remain valuable. Thus, the stock of resources is maintained, maybe by incremental improvement projects that ensure the resources remain relevant to the changing market environments. The more challenging role of the centre is the creation of new resources. This would be where the centre displays dynamic capabilities. We now focus on these asset creation possibilities, using the examples of capabilities offered by Teece, Pisano, and Shuen, and Eisenhardt and Martin. We group this exploration under the headings of:

- consolidation
- leveraging existing assets
- developing new assets
- acquiring new assets.

We shall now consider the first of these, consolidation. We refer to *sub-units* below. These may be strategic business units, divisions, or product lines that form part of the larger organization.

14.6.2 Consolidation

Some assets are either presently underutilized in their existing deployment, or they can be extended at relatively low cost to other product markets. For example, the firm may have a production facility that is currently operating at 50 per cent of its potential capacity. By extending the market reach of the products produced, this capacity can be absorbed, thereby lowering unit production costs. Or there may be a pool of expertise in, say, procurement that is not fully extended. By acquiring a similar firm and consolidating the two procurement activities, this expertise can be fully deployed. Similarly, information about customers can be readily leveraged to other business opportunities.

Underutilized entry assets can be made into strategic assets through consolidation or growth. For example, various support activities (human resources, legal, public relations) which are necessary requirements to operate in the market may be underutilized in most competing firms because of indivisibilities. Through consolidation by acquisition, the acquiring firm can develop a *strategic* asset that confers a cost advantage over competitors. Some mergers achieve this consolidation, which can thus transform some support activities from entry assets into strategic assets. However, this is unlikely to be a source of *sustained* advantage as all it would take to nullify this gain is the consolidation through merger of two rival corporations.

Some resources can be shared across sub-units. One major source of cost advantage that can accrue here is economies of scale. Here the activity is a core process, not a support activity, and it is conducted centrally to benefit from

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economies of scale. These activities could be involved in any part of the core processes that would otherwise be performed at sub-unit level. For example, this could be manufacturing, distribution, back-office, call centre, or sales and service.

Clearly, though, there are strong conditions of relatedness attached to this strategy, and there must be few diseconomies of coordination involved for this to be worthwhile. Moreover, the tension between the cost advantages of centralization and the typically more subtle benefits of tailoring the activity to the context of a particular sub-unit are a fertile ground for disagreement between sub-unit management and the centre. Sub-unit activity can be neglected here if the strategic significance of consolidated core activity dominates management attention. Subunit staff may find themselves battling to maintain or extend differences across sub-units in the face of pressures to standardize.

But the basis of this strategy of asset consolidation is that these centralized activities are *generic across the sub-units involved*. So although they may be performed differently in another firm, within this grouping of units, they are performed in the same way. The advantage is one of cost savings deriving from scale, consolidation to increase capacity utilization, and achieving 'critical mass'.

Firms pursuing consolidation of support activities need not require a great deal of relatedness across the sub-units. However, there are dangers if the definition of support activities is overextended into tasks that require a stronger element of tailoring to a particular sub-unit context. For example, if we centralize all human resource activities in the interests of efficiency, we may reduce the effectiveness of a

particular sub-unit that previously benefited from its own particular approach to training and induction.

The consolidation strategy is played out when there are no further consolidation advantages accruing. This happens when the capacity is fully utilized. As this constraint emerges there may be an effort from the apex to eliminate some support activities from the hierarchy through outsourcing. This can, usually, be readily achieved, as these activities tend to be generic (so writing contracts is easier), can be readily sourced from outside, and by their nature, these activities are loosely coupled to the organization.

14.6.3 Leveraging Existing Assets

Systems assets can be extended by training, or through the introduction of procedures and protocols into new business areas. Performed know-how, e.g. the skill of an experienced project manager, can only be extended if it can be codified and trained into others. However, if it is difficult to extend it because the know-how is tacit, then this form of know-how is a finite resource, which if transferred from one

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application to another would be lost to the former application. Two conditions need to be met if the firm is considering leveraging its assets:

- whether the asset confers an advantage in its new deployment.
- whether the asset can be leveraged at low cost.

An existing asset should be extended if it can confer an advantage in another product market domain. Preferably the asset should be *strategic* in this new domain, but it is possible that the asset acts merely as an entry requirement. If this is the case, other strategic assets must be developed and deployed alongside this entry asset. In determining whether the asset can confer advantage, it is necessary to have a sophisticated understanding of the market being entered. This requires an insight into customers' perceptions of product value, current competitive offerings in the market, and a view of how the firm expects to position its product against these incumbent firms. These questions can be answered through a structured analysis of the market, using the Customer Matrix.

The second criterion, extension at low cost, can be achieved where:

- the asset can be extended without damaging its effectiveness in existing deployments
- the asset is currently underutilized, as in the case of consolidation above
- the know-how involved is in the form of a system which can be readily applied in the new domain
- the asset does not have any physical constraints, e.g. a brand, information, a relationship.

We shall now explore in more detail the issues involved in leveraging the different categories of strategic assets set out in Figure 14.2.

14.6.3.1 Extending Operating Systems

This leverage strategy is based on the application of knowledge across a range of subunits. This knowledge exists in a form that can be trained in or accessed across the units. Thus, the knowledge must exist in the form of explicit, codified systems. This strategy captures the advantage of accumulated learning and experience in the form of proprietary systems.

The knowledge has to be *applied in the context of the sub-unit*, it cannot be executed centrally. The source of advantage derives from the ability to apply this knowledge across a number of different sub-unit contexts. So, for example, the firm may have particular skills in quality assurance: these can be trained into sub-unit quality staff who can then apply the processes within their own units. Or there may be accumulated expertise in new product development processes, which sub-units can benefit from, or the centre may have excellent management control systems that all units could implement.

This is procedural knowledge, systems and operating protocols that have to be adopted within the sub-units. Clearly, these procedures may be imposed onto subunit

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contexts where they may not confer advantage. The pressures to conform are often resisted at sub-unit level and cases for exception may 'fall on deaf ears' at the apex. These procedural requirements may be enthusiastically adopted at sub-unit level, or they may be treated as an irritant, preventing the unit from really focusing on the critical tasks. This tension can persist, and the sub-units may be able to resist the requirements to adopt standard procedures, partly because of the firm's short-term dependence on these line activities.

This asset leverage strategy suffers from few inherent constraints. Codified knowledge can be leveraged almost without limit. The constraints are likely to stem from the process of implementation. The wider the spread of sub-units, the greater the likelihood of

processes being imposed on an inappropriate context.

14.6.3.2 Extending Financial Control Systems

Probably the simplest source of firm-level advantage is the establishment of a rigorous financial control regime. For this to be a strategic asset, this regime must deliver superior financial performance to rival firms. The top management group exerts control over sub-groups through the setting of tough financial targets, monitoring performance, and rewarding or penalizing sub-unit management. Here top management is concerned with ends not means. They need have no detailed knowledge of the product lines within the firm, and they act as demanding majority shareholders. The sub-units within the structure need not be related in any operational sense, they are only similar in that they report through to the same top management team. The relationship between the top and the sub-units is likely to be remote, and there is little interchange across the sub-units.

The imposition of cost discipline gives the advantage of reducing inefficiency that can occur in large corporate structures buffered from the rigours of the market. But more typically, the benefit accruing here is an amelioration of agency problems caused by managers pursuing their own interests, rather than those of the share-holder. Setting tough performance targets and the imposition of appropriate rewards and punishments can help to align the interests of the sub-unit managers with those of the shareholder. This comparative advantage will persist as long as competing firms tolerate lax regimes. In resource-based theory terms, the tough control regime encourages or provokes the creation of resources in the business units.

The dangers here are an emphasis on cost-cutting and an overemphasis on the short term, which discourages the development of new products and capabilities. Moreover, this strategy can tend to encourage a game playing with budgets, where, for instance, sub-unit managers will 'hold back' potential performance improvements to give them some leeway in the following year. *In extremes*, this strategy can actually destroy some other strategic assets. If the senior management are unaware of the particular routines and behaviours which confer sub-unit advantage, the

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crude imposition of cost-cutting targets can result in the elimination of or severe disturbance to these subtle, and often informal routines.

14.6.3.3 Extending Cultural Assets

The values, norms, or culture of the firm can be a strategic asset that can not only endure, because it is difficult to imitate, but it can be an asset that can be leveraged. These values can be inculcated across many sub-units, and can perform as strategic assets within different product market contexts. Where all competing firms have access to the same technologies, produce similar products, and develop new products at the same pace in the same ways, then competitive advantage is likely to derive from assets like culture that are very difficult to imitate. Culture is likely to be difficult to describe, explain, and pin down in a way that can be copied by rival firms. The advantage may be a 'can do' attitude that pervades the sub-units, or it could be shared beliefs about excellence and quality of service. It could be an immensely strong performance orientation, hitting quantifiable targets and getting rewarded. It could also be an informal social network, or wide set of external contacts. The corporate culture is likely to flow from the top: the leadership set the tone and values not so much through artefacts like 'mission statements' and value statements, but by their behaviour.

This strategy has constraints not on scope but on its longevity. It may have emerged from the leadership behaviour of a particular executive, and, if the processes of inculcating and preserving the culture are not understood, this strategic asset will be vulnerable once this charismatic leader departs.

14.6.3.4 Leveraging Know-How

Here the strategic asset does not reside in a generic activity that is performed at the centre, nor does it derive from generic procedures that can be applied across a range of sub-unit contexts. Here advantage derives from the *performance* of the activity in different sub-unit contexts. The basis of the asset is not codified knowledge, but *know-how*, which has to be *performed* to derive its benefit. This can be achieved either by moving the performers around the sub-units, or by centralizing the activity. Because this is performed know-how, it is a very constrained resource that cannot be stored. Moreover, if the know-how is being performed in one sub-unit, then the other units are simultaneously deprived of this scarce resource.

This performed know-how could take many forms. It could be a gifted sales team, a brilliant negotiator, a creative brand development unit, a highly experienced project manager, or a 'trouble-shooter'. If the sub-units are able to benefit from this expertise, they have to be related in terms of *their* source competitive advantage.

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14.6.3.5 Extending Strategic Insight

Entrepreneurial insight can be a highly valuable asset. This might take the form of direct intervention into the strategic development of the sub-unit, e.g. 'do it this way', or it may be performed in a more reactive style, e.g. 'yes, that looks like a good idea, do it'. This advantage can, however, only accrue where someone at the centre has a deep understanding of the sub-units, their markets, and their strategic assets. This is genuine strategic leadership, which is likely to flourish where sub-unit managers have great respect for the expertise of the executive(s) at the centre.

14.6.4 Developing New Assets

So far we have considered ways in which existing assets can be leveraged or extended to provide advantages in other product markets. Often this extension will require the acquisition or development of complementary *entry assets*. Depending on the scarcity and complexity of these assets, the firm will find it more or less difficult to acquire them. In some industries these assets are easily acquired. For example, if one wished to enter the used car business, acquiring a vacant plot of land may be quite straightforward. However, the know-how to buy well at car auctions may be a scarce asset that could be expensive to develop in-house. Poaching an experienced buyer from a rival firm may be the answer here.

The most challenging assets to develop are, unsurprisingly, strategic assets: these are firm specific, often complex, and may involve *tacit routines*, i.e. routines that have not been explicitly set up, they have evolved. This would suggest that it would be difficult to set out an explicit action plan to develop these scarce and valuable firm resources. What is more likely is that they will emerge from a process of experimentation which may be funded and guided from the centre, but may just as likely emerge from ideas and initiatives undertaken spontaneously at many levels of the structure. For this haphazard and ad hoc development process to be stimulated requires the leadership to develop a culture which encourages this behaviour. This would involve introducing many of the precepts of the 'learning organization', empowering individuals and teams, supporting pilot tests of new ideas, and expecting failures to occur. In contrast to this type of organization, the scarce resource in many firms would seem to be the drive to challenge and change the status quo. Thus, we should encourage the pockets of energy, emotion, and conviction to try things, to experiment, to pilot test concepts and ideas.

14.6.4.1 Experiments and Pilot Tests

Most organizations are not well designed to deliver innovations and change. They are designed to operate routines efficiently. Most innovations do not emerge from these structures. At an industry level often the real innovations stem from

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individuals or organizations that are, in some sense, 'outside' the industry, certainly in their thinking. These individuals or organizations are not constrained by the predominant mindset or recipe in the industry. They are able to think outside the bounds of what is conceived as possible by industry insiders.

For an insider, the range of possibilities for the organization is a restricted set. Even when 'radical' solutions are proposed they are most likely to be marginal adjustments around a whole host of assumptions about the way things must be done in the industry, the taken-for-granted recipe. Moreover, in many cases the senior management may not clearly understand the elements of the organizational mix that *really* matter. Changing things is especially risky if you are not sure what makes the organization work in the first place.

So change is seen as a risky activity. If we can reduce the perceived risks of change, then it is more likely to occur. Pilot testing, experimenting with new ideas helps build belief and confidence in the new concepts, structures, processes, or products, in a low risk way. The information that flows from these experiments gives the senior managers confidence to make resourcing decisions. Seeing is believing: pilot tests build commitment and conviction.

So in the case of the development of new strategic assets, the change process begins with *action*. These actions have the nature of experiments. They are tentative explorations of possible futures for the organization. When these experiments produce tangible evidence that things could be done differently, a vision emerges incrementally. The potential of the organization to enhance its performance becomes believable, which encourages dissatisfaction within current levels of performance, increasing the momentum for change. From the perspective of a national economy, thousands of small businesses are started every year. Within two or three years only a percentage of these start-ups will be thriving. The rigours of the competitive environment will weed out the marginal projects and ill-conceived schemes, permitting only the fittest to survive. The message for the corporation should be clear. You need to generate a sufficient number of experiments. You must expect many of them to fail, and you must shape the emerging organization around the fittest survivors.

So the role of the centre becomes that of a promoter of experiments, and an arbiter of which partially developed schemes should be

encouraged. The experiments will inevitably be driven off of the current concerns and strategic assets of the organization. It is unlikely that this process of experimentation, evaluation, and further resource commitment will generate quantum leaps in the organization. This will be incremental change, but it will be evolutionary, adaptive change, rather than the catastrophic crisis-driven lurches experienced by many organizations.

14.6.4.2 Acquiring Assets

Assets can be acquired simply by spending money in the marketplace. Equipment, locations, brands can all be purchased. Expertise can be hired, and star performers

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can be lured from rival firms. Some assets cannot be readily separated from the organization they currently operate in. Therefore, to acquire the asset the whole firm must be purchased. An alternative would be to form an alliance with another organization so the required assets can be brought together. Issues surrounding acquisitions and alliances are dealt with in far more depth in other chapters, but here are some observations that stem from their role in asset augmentation.

Typically the easiest assets to acquire are physical resources. Moreover, we would expect entry assets to be more readily available than strategic assets. If a firm requires a particular collection of entry assets to enter a particular market, these may well be acquired relatively cheaply, and readily. For example, when Virgin entered the cola market, it managed to secure bottling plants and expertise to manage these fairly easily.

We would expect competitive bidding for *strategic* assets, which may well result in their value never being realized: the acquiring firm simply bid too much. Guile helps here. If the acquiring firm spots an undervalued asset, it may well be able to pick it up cheaply, or it may be a 'fire-sale' bargain.

Cultural and knowledge assets can be acquired by acquiring an organization. The difficulties can often lie here in the processes required to integrate these intangible assets into the corporation. Often, subtle differences between the two organizations are revealed post-merger which were not apparent prior to the deal being struck, despite the best efforts of accountants and consultants.

Alliances are a way of acquiring assets without owning them. They can be viewed as a pooling arrangement of complementary assets. This may enable an *entry* asset in one firm to operate as a *strategic* asset in the alliance.

Finally, the cost of acquiring an asset may be higher if the sellers of the asset realize its value to the acquirer, and are able to bargain up the price. For example, now that soccer players can be free agents at the end of their contracts, they are able to capture a higher proportion of the value they create through salaries and golden handshakes.

14.6.4.3 Augmenting Assets: An Example

Ambient Media, our in-store advertising firm, assess their strategic assets as follows:

- long-term contracts with all major UK retailers
- special insights into the media buying process
- proactive, aggressive sales team
- trust-based relationships with media buyers
- willingness to take the financial risk off of the stores.

At present their attention is focused on getting the most return they can from these assets. However, they have recently explored the in-store advertising markets in Japan, Germany, and the United States. They see a substantial opportunity in these relatively underdeveloped markets, but to exploit this rapidly requires a significant

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enhancement of their assets. Specifically, they need to have a credible presence in these markets as a basis for building trust with stores groups and advertisers. They have concluded that the most timely way to build the required presence is through the acquisition of existing media and poster firms in each country. The first acquisition has taken place, and now the Ambient team are selecting and training the new sales team to operate in Germany. This team is led by the most experienced sales-person from the United Kingdom. So through a combination of acquisition and leveraging existing know-how, Ambient intend to spread their unique concept into other markets.

14.7 Summary and Conclusion

In this chapter the process of strategy formulation has been considered from a particular perspective which conceives of the firm as a bundle of assets. The formulation process begins with the identification of the firm's current set of strategic assets. This is achieved through an analysis of value from the customer's perspective, and the internal processes and resources that deliver value. The three tools explained in the chapter that can assist here are the Dimensions of Perceived Use Value chart (Figure 14.3), the Customer Matrix (Figure 14.6), and the Cause Map (Figure 14.4).

Strategic assets fall into one of five broad categories: tangible, system, cultural, knowledge and relational assets. When a strategic asset is imitated by competitors, it is converted into an *entry* asset. Physical assets are usually more easy to copy than intangible assets like culture and know-how.

Looking to the near future, the strategy process needs to then identify the asset stocks required to compete in the firm's chosen market renas. Thus, a third category of asset enters the analysis: *required* assets. The final stage of the process addresses how the existing stock of assets can be augmented. Four basic approaches can be adopted here: consolidation, asset leverage, asset development, and acquisition. Thus, a strategy for a firm would contain a statement of:

- the firm's strategic assets
- the markets the firm intends to operate in
- the assets required to compete in those markets
- how those assets are to be developed or acquired.

Armed with this clear view of the future direction of the firm, managers should be able to make tactical and operational decisions with a good deal of confidence.

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References

- Ambrosini, V., and Bowman, C. (1999). 'Mapping Organizational Success'. Third International Conference on Organizational Learning, Lancaster, June 1999, Proceedings, pp. 19-45 (copy available from the authors).
- (2001). 'Tacit Knowledge: Some Suggestions for Operationalization'. *Journal of Management Studies*, 38/6: 811-29. November, 2001. [Link](#)
- (Forthcoming). 'Mapping Successful Organizational Routines', in A. Huff and M. Jenkins (eds.), *Mapping Strategic Knowledge*. Sage.
- Amit, R., and Shoemaker, P. J. H. (1993). 'Strategic Assets and Organizational Rents'. *Strategic Management Journal*, 14: 33-46. [Link](#)
- Barney, J. B. (1986). 'Organizational Culture: Can It be a Source of Sustained Competitive Advantage?'. *Academy of Management Review*, 11/3: 656-65. [Link](#)
- (1991). 'Firm Resources and Sustained Competitive Advantage'. *Journal of Management*, 17/1: 99-120. [Link](#)
- Bogner, W. C., Thomas, H., and McGee, J. (1999). 'Competence and Competitive Advantage: Towards a Dynamic Model'. *British Journal of Management*, 10/4: 275-90. [Link](#)
- Bowman, C., and Ambrosini, V. (2000). 'Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy'. *British Journal of Management*, 11/1: 1-15. [Link](#)
- and Faulkner, D. (1997). *Competitive and Corporate Strategy*. London: Irwin. This text also explains an alternative approach to competence development. This approach develops a parallel tool to the Customer Matrix, called the Producer Matrix.
- Conner, K. R. (1991). 'A Historical Comparison of Resources-Based Theory and Five Schools of Thought within Industrial Organization Economics: Do We Have a New Theory of the Firm?'. *Journal of Management*, 17/1: 121-54. [Link](#)
- Dierickx, I., and Cool, K. (1989). 'Asset Stock Accumulation and Sustainability of Competitive Advantage'. *Management Science*, 35/12: 1504-11. [Link](#)
- Eisenhardt, K. M., and Martin, J. A. (2000). 'Dynamic Capabilities: What Are They?'. *Strategic Management Journal*, 21: 1105-21. [Link](#)

Goold, M., Campbell, A., and Alexander, M. (1994). *Corporate-Level Strategy: Creating Value in the Multibusiness Company*. New York: Wiley.

Grant, R. M. (1991). 'The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation'. *California Management Review*, 33/3:114–35.

—(1996). 'Toward a Knowledge-Based Theory of the Firm'. *Strategic Management Journal*, 17:109–22.

Hamel, G. (1994). 'The Concept of Core Competence', in G. Hamel and A. Heene (eds.), *Competence-Based Competition*. Chichester: John Wiley and Sons, 11–33.

— and Prahalad, C. K. (1994). *Competing for the Future*. Boston: Harvard Business School Press.

Lippman, S. A., and Rumelt, R. P. (1982). 'Uncertain Imitability: An Analysis of Interfirm Differences in Efficiency under Competition'. *Bell Journal of Economics*, 13/2: 418–38. [Link](#)

Markides, C. C. (1997). 'To Diversify or not to Diversify'. *Harvard Business Review*, 75/6: 93–100.

Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, 68/3: 79–91.

end p.441

Priem, R. L., and Butler, J. E. (2001). 'Tautology in the Resource-Based View and the Implications of Externally Determined Resource Value: Further Comments'. *Academy of Management Review*, 26/1: 57–66. [Link](#)

Rumelt, R. (1984). 'Toward a Strategic Theory of the Firm', in R. Lamb (ed.), *Competitive Strategic Management*. Englewoods Cliffs, NJ: Prentice-Hall, 556–70.

Teece, D. J., Pisano, G., and Shuen, S. (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18/7: 509–33. [Link](#)

Wernerfelt, B. (1984). 'A Resource-Based View of the Firm'. *Strategic Management Journal*, 5/2:171–80. [Link](#)

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15 Organizational Learning

John Child

15.1 The Strategic Relevance of Organizational Learning

As has been noted throughout this Handbook, the contemporary economy is increasingly knowledge-based and subject to rapid change. One of the main reasons why some firms perform better than others is that they apply superior knowledge and can adapt more effectively to changing conditions. This means that they are better at what has come to be called 'organizational learning'. Organizational learning refers to both the process of acquiring or generating new knowledge and to its outcome. The outcome of learning is the acquisition of a new competence: an ability to apply new knowledge to enhance the performance of an existing activity or task, or to prepare for new circumstances and thus change in the future. A firm that is effective at learning will be skilled both at creating, acquiring, and transferring knowledge and at modifying its behaviour to reflect this new knowledge and insight.

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For many years the dominant view among strategy theorists was that superior performance could be explained in terms of the structural features of industries, such as barriers to competition. As Moingeon and Edmondson (1996) note, however, an alternative view has attracted much attention in recent years, which is that firm-specific resources and competencies play a critical role in enabling firms to achieve superior performance in the market. This resource-based view of the firm highlights the role of organizational knowledge as a foundation for competitive success. Nonaka and Takeuchi (1995), for example, claim that in contemporary conditions, knowledge is the only sure source of lasting competitive advantage. Senge (1990) argues that the pace of change in the modern world is so rapid that it is inadequate simply to learn how to adapt. Adaptive learning needs to give way to a more pre-emptive learning which Senge calls 'generative learning'. In this way, firms can be proactive rather than reactive. They can surface latent customer needs to build new markets, exploit new technologies to meet those needs, and in these ways keep ahead of the competition and ensure long-term survival.

In somewhat similar vein, Hamel and Prahalad (1994) argue that because of uncertainties about new markets and other conditions, firms will be better equipped to compete if they focus on their core competencies. These core competencies are fundamental abilities, which it is difficult for competitors to imitate. They depend upon the firm possessing some specific knowledge and the ability to renew it. Various types of knowledge can contribute to a firm's core competence, including technical, organizational, and strategic knowledge. Examples are, respectively, the special technical insight or design flair that lends a superior edge to products and services, the organizational ability to combine and recombine assets to meet new competitive opportunities, and the distinctive mindset that leads to innovative strategies. While some of this knowledge is tangible and explicit, a great deal is intangible and tacit in nature.

The resource-based view also draws attention to the significance of the processes whereby relevant knowledge becomes available to a firm. This may be through acquisition from external sources or through its creation within the firm. These processes are both regarded as central features of organizational learning. Neither process is likely to take place very effectively, if at all, without certain supporting conditions being in place. One condition is the ability of a firm's management team itself to learn and to encourage learning throughout the firm. Is management, for example, receptive to market signals and does it have the ability to guide its organization's response accordingly? Another condition is management's ability to organize for learning by encouraging the free flow of information, and pooling of competencies, within and across the boundaries of a firm.

This chapter focuses on the conditions for promoting organizational learning as a strategic resource. It first considers learning within firms and then turns to the role of partnership through alliances between firms. It concludes with implications for practice and future research needs.

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15.2 Organizational Learning within Firms

15.2.1 The Role of Leadership

Leadership is an important agency for organizational learning. Leadership is often required in order to create the conditions for learning by breaking the mould of embedded thinking and practice. Some leadership of the organizational learning process itself is necessary for it to be directed towards clear goals, coordinated, informed by open channels of communication, and, not least, adequately supported with resources. However, this implies a degree of top-down direction and control, which it may not be easy to reconcile with the autonomy and openmindedness commonly regarded as requisites for creative learning. Indeed, the pressures for change and reform emanating from learning within an organization can easily be interpreted as a challenge to its senior leadership. In other words, the inherent tension

between leadership and devolved autonomy can also be problematic for organizational learning. The implications for organizational learning of the leadership role, and of the tension between control and autonomy, are considered in turn.

The potential contribution of leadership to organizational learning encompasses a number of roles. The most fundamental is that of establishing a culture conducive to organizational learning, if necessary by transforming the embedded legacy of the past from a barrier to an asset. Often, barriers can be broken down through communication of a vision from the top. If the barrier proves insuperable, however, it may have to be destroyed. Radical moves away from embedded organizational cultural webs, sometimes termed 'frame-breaking' changes or 'transformations', have to be led from the top. Jack Welch performed this role at the General Electric Company. The other side of the coin is that a conservative organizational leader, who clings to an established set of policies and practices, insulating himself or herself against changing realities, can have the power to prevent an organization from learning and adapting. It is therefore not surprising that radical changes and corporate turnarounds usually require the bringing in of new senior managers from outside, as well as the direct involvement of executives in all aspects of the process (Grinyer, Mayes, and McKiernan 1988).

Radical change presents the most dramatic connection between organizational leadership and learning, but the culture that it aims to create has also to be sustained on a more everyday basis. Tensions can arise between the element of control within managerial leadership and the degree of autonomy that is a further condition for effective learning within organizations. Therefore, a second leadership role in promoting organizational learning is to establish a culture that permits the autonomy

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needed to encourage the creation of insight and new knowledge, within a sense of collective effort that is directed towards the development of the organization as a whole.

A third leadership role in respect of organizational learning is to foster the three channels of communication and relationships across a firm's internal and external organizational boundaries that are key to the learning process (see also Section 15.2.3 below). The first channel is vertical and the other two are more horizontal:

1. The first channel is between higher management and other, more specialized, groups within an organization. There is a division of function here in that higher management will normally be concerned with strategic knowledge, while other groups will work more on organizational and technical knowledge. Each area of knowledge needs to be informed by the others. In particular, the degree of support that higher management gives to learning activities and systems at lower levels of an organization can have a major impact on their effectiveness.
2. The second channel involves the integration of knowledge contributions between different specialties and units within an organization. It is a requirement for the operation of knowledge databases and for effective teamwork across departments and disciplines.
3. The third channel promotes flows of information and knowledge across the boundaries of an organization through communication with, and intelligence from, other organizations and groups including customers, suppliers, network partners, competitors, and research institutes. Cross-organizational knowledge flows can occur at any level of an organization, though flows relevant to strategic learning tend to be concentrated at the upper levels and those relevant to organizational and technical learning lower down.

Figure 15.1 presents a graphical summary of these three channels of communication and relationship.

15.2.2 Control and Autonomy

The question of *what* information is made available, and to *whom* within a firm, involves an element of choice. This choice is a prerogative of top management, insofar as it creates and resources the channels of information. At the same time, fast-changing organizational contexts, characterized by increasing discontinuity and turbulence, render it even less tenable than previously for top management to hold or even understand all of the information relevant to adapting their organization to these changing conditions. While it is the role of senior management to make sure that its organization has an appropriate sense of long-term direction, organizational learning also requires a degree of cognitive and behavioural initiative on the part of organizational members who are in closer touch with

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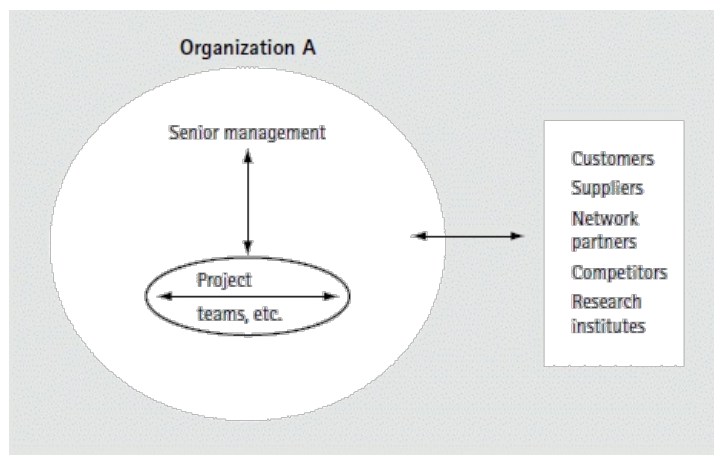


Fig. 15.1 Three channels of communication and relationship necessary for effective organizational learning

relevant events and developments. The challenge for leadership in facilitating organizational learning therefore lies in maintaining a judicious combination of both control, in the form of guidance and back up, and the autonomy required to motivate knowledge generators and encourage the free flow of information.

As has been noted, leadership denotes direction and implements this through the allocation of resources: money, equipment, personnel, and time. The latter resource is especially significant for learning, which requires a double time investment. The time that is taken up by personnel learning new practices, and in standing back from a situation in order to assimilate new information, is also time that is 'lost' to the organization while learners step out of their usual roles and routines in order to accomplish the learning.

It is necessary to provide organizational learning with direction sufficient to ensure that it is regarded as significant and thus adequately supported, while also allowing sufficient autonomy to the process so that it is capable of producing new insights. For example, a British contract catering company recently saved considerable costs in its purchasing by reducing the range of its suppliers without sacrificing food quality when a new managing director set such saving as a target but left it to teams of chefs, restaurant managers, and other staff with operational knowledge to decide which suppliers the company should retain.

In this connection, Simons (1995: 83) has introduced the concept of interactive control, which is realized through the opening of organizational dialogue to encourage learning. A management adopting this approach attempts to reconcile

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the simultaneous need for control and creativity within a learning organization. It does this in tandem with active policies concerning beliefs (by communicating core values and missions), boundaries (by specifying and enforcing the rules of the game), and diagnostics (by building and supporting clear targets). This approach combines a normalization of creative learning, or innovative, processes at the operational level with the maintenance, by top management, of an organization communications network through which these idiosyncratic learning experiences can be made organizationally accessible. The 3M Corporation illustrates how management can actively foster learning and innovation through this kind of interactive control (see Box 15.1).

Box 15.1 Autonomy and learning at 3M

'Generations of top management at 3M have viewed their organization as growing from the bottom — the project team—up. Under a principle the company calls "grow and divide", successful project teams, consisting of an entrepreneur with an idea and a small team that believes in it, grow into departments.... Top management has organized wide, collegial networks that scientists throughout the company can tap into for advice and assistance.... It routinely leverages new technologies across two or three divisions and applies them in multiple markets. It is the company's well-oiled competence-building process that has become 3M's real core competence.'

In companies like 3M, 'top management entrusts the operating units with the challenge of creating the competencies needed to pursue local opportunities. It limits its own role to seeing that those competencies are shared through cross-unit flows of resources, knowledge, and people.'

The role of team leader is significant for the success of this approach. Insights from the literature on innovation demonstrate how team leaders can realize necessary links between organizational levels to support a collective learning effort. Kidder (1982: 47) graphically describes what may be seen as the *integrative* leadership qualities of Data General's pioneering computer engineer in developing a new machine. It has also been found that innovations achieving commercial success tend to have more senior people responsible for them. The greater power such individuals can wield helps the concentration of effort on the scale that is needed as well as the integration of R&D activities with market needs (SPRU 1972).

Kidder also notes that some of the engineers close to Data General's project leader suspected that if he had no crisis to deal with, occasionally he would create one. The example of Data General shows that, while jolts to the status quo may come from innovating units further down the organizational hierarchy, top management can also initiate them. The innovation literature is again valuable in

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pointing up such triggers for learning. For example, Humble and Jones (1989: 46) observe in their discussion of *planned obsolescence* that, while incremental improvement represents a continuing process, 'radical innovation calls for different methods and people.... Top management starts with a determination to "obsolete" its products and services, no matter how successful they are'. In similar vein, Nonaka and Takeuchi (1995: 5) comment on the fact that 'the willingness to abandon what has long been successful is found in all successful companies' and on the 'creative chaos' which 'can be generated intentionally when the organization's leaders try to evoke a "sense of crisis" among organizational members by proposing challenging goals' (ibid. 79).

Leadership also, however, denotes status, power, and privilege. Hence, those in authority are always liable to seek to defend their positions and, in so doing, may well suppress proposals from below which are at one and the same time opportunities for the organization to learn and challenges to the present establishment. In exercising the right to choose how much power it will delegate downwards, the leadership of an organization can determine how many learning opportunities it will make available to subordinates. When making this choice, some managers still accord with the precept of scientific management that in organizations thinking should be separated from doing. This tendency and how it can militate against opportunities for learning is illustrated by the case of a major automobile manufacturer (Box 15.2).

This case points to the potential that external consultants have in promoting organizational learning, and also how their recommendations can be rejected due to considerations of maintaining managerial power. It highlights the relationship between learning, vertical differentiation and control. Control can readily be

Box 15.2 Management's reluctance to share 'privileged' knowledge

In advising a major automobile manufacturer's management on how to achieve their aim of an integrated factory, a team of consultants recommended the exposure of factory workers and supervisors to the concepts of systems dynamics. This would be a way for them to learn effective strategies to cope with complex breakdowns and bottlenecks. By weakening the traditional division between the direction and execution of tasks, it would also support the development of new capabilities among workers. In the event, however, management elected *not* to make this learning opportunity available to the employees concerned. Confronted with the challenge of sharing knowledge related to systems dynamics and the mapping of a complex production flow, and thus with sharing control with the workers in order to make the plant operate more efficiently, the management stepped back from the integrated approach. They were ultimately unwilling to share what they perceived to be their privileged knowledge as management.

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equated to the maintenance of vertical differentiation. This was certainly the perspective of the auto company's management. In reverse, it is also the perspective of employees who restrict management's access to operational and quality information.

Typically, control is manifested in the mechanistic approach to management, through upward reporting via formal, routinized procedures. The main channels through which organizational control is exercised include technology, human resource management, and, in particular, finance. As one Vice-President of a major American multinational corporation explained to the author apropos of its joint ventures in China, 'you only get to run the operation through the guy who keeps an eye on the money'.

Burns and Stalker (1960) contrast this hierarchical structure which is reinforced by 'the location of knowledge of actualities exclusively at the top of the hierarchy, where the final reconciliation of distinct tasks and assessment of relevance is made' (ibid. 120) with the network structure which typifies the organic approach to management. In this system, knowledge about the technical or commercial nature of the here and now task may be located anywhere in the network; this location becoming 'the *ad hoc* centre of control authority and communication' (ibid. 121).

The organic system is more conducive to learning than is the mechanistic system, for it facilitates the crossing of organizational levels and boundaries, and the communication of information even to the point of redundancy. Attempts to realize these objectives on a hierarchical basis are not conducive to effective learning, especially in contemporary conditions. Relevant knowledge and expertise is today normally distributed widely among the member groups within organizations. Leaders therefore have to reconcile the need for control and autonomy in a manner acceptable to them and which elicits their positive contribution to the learning process.

Having considered how the *vertical* differentiation of firms can bear upon their organizational learning, attention can be now given to how their *horizontal* differentiation in terms of internal and external boundaries also impacts on organizational learning. The two aspects of organizational differentiation tend to reinforce each other. An emphasis on hierarchy encourages differentiation and disassociation between units in separate reporting lines. Horizontal integration via teams and the like facilitates autonomy and empowerment, and assists the reduction of vertical differentiation through de-layering.

15.2.3 Boundaries within and between Organizations

An important insight that organizational analysis brings to the theory of the firm is that organizations have internal and external boundaries. These at one and the same

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time denote differentiation and integration among the parties to an organizational learning process. Organizational boundaries are social phenomena with significance for their members' identities and actions. Firms, and indeed other organizations, are constituted by much more than the 'set of contracting relationships among individuals' that some economists posit.

15.2.3.1 Internal Boundaries

Unless they are extremely small, firms normally develop internal boundaries by distinguishing different specialized groups, departments, or sub-units. Each of these specialties will have its own set of competencies and knowledge. However, specialized groups attach their own values to their expertise, and articulate them through their own codes and terminology. As Lawrence and Lorsch (1967: 11) note, specialization within organizations tends to encourage a 'difference in cognitive and emotional orientation among managers in different functional departments'. Specialized personnel may remain attached to their codes and language as reflections of their social identity and market value outside a particular organization. In the case of professionalized groups, an external institutional base bolsters this identity. It can therefore be difficult to bridge internal boundaries and integrate the contributions of different groups to organizational learning because of contrasts in the technologies they offer, and the goals they attach, to the process.

A firm, nevertheless, has to draw upon the specialist competencies and knowledge bases of different intra-organizational groups in order to provide the substantive contributions and insights required for learning. For this reason, effective organizational learning requires a certain level of differentiation and a complementary level of integration, the appropriate balance between them depending on contextual factors such as the complexity, rate of change, and competitive pressures in the organization's environment. Lawrence and Lorsch (1967) concluded from their investigations that high-performing organizations were those which realized this optimum balance.

One of the most incisive analyses of the significance of differentiation and integration for collective learning within organizations remains that offered by Mary Parker Follett (see Graham 1995). Follett appreciated that conflict is a fact of social and organizational life. Her view was that instead of being hidden or ignored, it should be acknowledged and used constructively. In her view, conflict was the legitimate expression of differences of opinion and interest. Without these differences, there would be no progress. This perspective suggests that the bringing together of people from disparate organizational roles, specialties, and backgrounds should enrich the learning process. The question is how to resolve conflict between them in a constructive way. Follett advocated 'integration' as the most fruitful approach. Integration involves searching for an innovative solution in which all the desires and views expressed find a place. Her argument implies that the most

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fruitful way of dealing with the conflict that arises across internal organizational boundaries is to turn it towards collective learning and knowledge creation. If it can be achieved, an innovative solution embodying collective learning stands not only to be enriched by the range of internal organizational specialties; it should also help to bridge internal boundaries by offering a mutually attractive solution to the various parties involved.

There is, however, no guarantee that integration across internal boundaries can always be realized as a wellspring of collective learning. For example, their embedded norms and practices can make individuals and groups unwilling to learn. The inter-group conflicts that are

liable to arise with differentiation can also constitute an impediment to organizational learning. Studies of how private and public-sector organizations in European services responded to the availability of new information technologies, demonstrate that learning can be contested as well as collaborative between the different organizational groups who were involved, such as technical specialists, higher management, personnel specialists, and employee representatives. The introduction of powerful new integrated information technology systems opens up the possibility of radical innovations in the organization of work as well as in the provision of services. It therefore exposes the conflicting interests and perspectives of different occupational groups that might otherwise remain relatively subdued (Child and Loveridge 1990).

Integration of the contributions to learning which organizational sub-units have the potential to make involves a process of redefining the frames of meaning within which those contributions are lodged. A prerequisite for this process appears to be the willingness to communicate openly based on a minimum level of mutual trust and respect, though open communication of itself is not sufficient to resolve underlying conflicts. Managers are the key personnel for mediating the differentiation/integration process and resolving interdepartmental conflict. Managers have a responsibility to identify organizational members who possess the appropriate competencies, and then to bring them together and help them to align the different frames of meaning within which their knowledge is located. There is a political facet to these tasks, however, for where communication between such groupings is mediated, rather than open or direct, it becomes vulnerable to reinterpretation, suppression, or reformulation. Information brokers or 'gatekeepers' therefore play a key role in the facilitation or hindrance of organizational learning. Likewise, those occupying boundary-spanning roles between different organizational sub-units, as coordinators or liaison personnel, can also play an important part towards securing the integration on which effective learning depends. It is often external pressures, such as customer complaints, that clarify the need for an organization to improve its internal integration, and those who receive and interpret such information also play a key role in signalling this need.

A further type of integration also promotes learning—that of professional staff with management. Much of the expertise held by the more skilled professionals is

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based on tacit knowledge, and this is difficult to convert into organizational routines. Such professionals typically employ expert judgement that is not readily translated into rationalized, systematized procedures or delegated to others. If professional knowledge and judgement can be aligned with that of managers, their joint capacity to learn and make better informed decisions should improve. As always, the challenge lies in how to achieve this. It requires reward and career development policies sufficient to motivate professional and specialist staff to contribute their expertise, and mechanisms such as task forces for bringing together and appropriating that expertise as an organizational competence.

Integration is therefore essential to organizational learning. An organization frequently knows less than the sum of its members. The first step therefore consists of bringing together an organization's various bodies of specialist knowledge to maximize its knowledge resource. A further step is then to promote synergy between the holders of knowledge so that new insights are created and the organization in terms of knowledge can become more than the sum of its parts.

15.2.3.2 External Boundaries

Tensions arise from the paradox that a firm's 'external' boundaries have, at the same time, to be maintained and yet kept permeable. These boundaries are enclosures around the legal and contractual realities of ownership and employment. They define the limits of rights and obligations and can also demarcate a common corporate culture and identity. At the same time, these boundaries have to be kept open and information transferred across them so that organizational learning can be stimulated and informed by external developments.

Access to information outside a firm's boundaries, and knowledge creation through collaboration with other firms, are becoming increasingly important. This is particularly true in sectors such as biotechnology which have a complex and expanding knowledge base and where sources of expertise are widely dispersed (Powell, Koput, and Smith-Doerr 1996). Learning within and through inter-firm alliances is considered shortly in Section 15.3. The specific point to be noted here is that the permeability of firms' boundaries, and provisions for transferring information across them, are consequential for organizational learning. There are, moreover, important parallels between the processes of bridging external and internal organizational boundaries, and the effective transfer of information and knowledge into a firm depends on the effectiveness of both processes.

It is vital for a firm's capacity to innovate and to learn in other ways that it receives relevant new information from its external environment. This information can relate to all levels of organizational activity: strategic, organizational, and technical. Top management through its external connections, via membership of other companies' boards, trade associations, governmental working parties, and the like, can be an important conduit for the input of information relevant to strategic

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learning. At the technical level, which has been the focus for research on innovation, relevant specialists and R&D project teams must maintain effective connections with external sources of technical information such as universities and research institutes.

The inputs to a firm's learning process that flow across its boundaries can vary from ill-structured and scattered items of news to highly codified sets of knowledge. It is generally assumed that the less codified and more tacit the knowledge, the more difficult it will be for the receiving organization to make sense of it, even if it gains access to it in the first place. One of the reasons why firms are encouraged to work closely in joint ventures or other forms of collaboration is that this enhances their opportunity to access and make use of the tacit, uncoded knowledge held by, and embedded within, their partners. The alternative is to recruit personnel from the other organization(s) who hold such knowledge, and then to graft them onto the 'home' system.

It is not necessarily the case, however, that even explicit knowledge can readily be imported across an organization's boundaries. Much depends on the receiving organization's capacity to absorb that knowledge, especially the experience required to interpret, store, and use it. Problems can arise because different organizations codify knowledge to suit their own purposes. The imported knowledge may be codified in a form that is specific to a particular purpose or situation that does not apply in the receiving organization. In this case, it will be necessary to revert back to the more abstract principles that inform the knowledge and provide the bridge to its reapplication and codification in the new organizational context.

'Boundary spanners', who work at the interface between their firm and its external environment, play a critical role in the process of transferring information and knowledge into an organization. Boundary-spanning involves accessing external knowledge, interpreting and refining it, and directing it to other members of the organization (such as other members of a project team and appropriate senior managers). However, Figure 13.1 previously indicated that both external and internal boundaries have to be spanned for externally sourced information to contribute to internal knowledge-enhancement. This requirement translates into three necessary processes. The first is to gather outside information. The second is to communicate the information across internal horizontal boundaries, often through cross-functional teams. The third process is to interpret the information for the benefit of higher management. A commonly occurring problem is that persons who are effective as external boundary spanners, because they belong to the same occupational speciality and share a common social identity as their informants, may face considerable difficulty in spanning the internal boundaries with colleagues who do not share these characteristics.

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15.3 Organizational Learning through Alliances between Firms

Firms are increasingly forming alliances with the specific intention of acquiring new knowledge and know-how. Even when alliances are formed for reasons other than learning and knowledge acquisition, such acquisition can be a desirable by-product of their collaboration. The prospect of acquiring relatively advanced technology and management expertise is a major reason firms from emerging countries favour alliances with those from developed countries. The partners from developed countries often view such alliances as an opportunity to learn about unfamiliar business environments. In sectors like biotechnology, which have a rapidly expanding but dispersed knowledge base, alliances form part of extensive networks of learning. Yet, despite its undoubted importance, rather little is known about learning through alliances or other forms of interorganizational cooperation (Choi and Lee 1997; Larsson, Bengtsson, Henriksson, and Sparks-Graham 1994; von Krogh and Roos 1996).

15.3.1 The Nature of Learning through Strategic Alliances

Strategic alliances are hybrid arrangements for they combine the strategic objectives and cultures of the partner organizations. When they are achieved through the establishment of a new joint venture, alliances may also have to combine elements of the partners' management structures and systems. The hybrid nature of alliances has a number of implications for the possibilities of learning through them. A positive feature is that the complementary expertise and knowledge brought to an alliance by partners can promote learning both through transfer and through the dynamic synergy that may be stimulated by the coming together of experts from different corporate, and perhaps national, backgrounds. Alliances between comparatively small, research-intensive biotechnology firms and rather large pharmaceutical companies with expertise in development, production, and marketing serve as one example. A problematic feature lies in the barriers to knowledgesharing between alliance partners, barriers that can arise for a number of reasons. The underlying relationship between the partners may remain fundamentally competitive. It may prove difficult to reconcile the different corporate or social identities of their staff. The members of an organization may assume that they have nothing to learn from their partners. Companies may not have the experience or capacity to acquire and absorb the knowledge available from their alliance partners.

Lindholm (1997) categorized three different processes through which learning can take place in international joint ventures. The first is the

transfer of knowledge by

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the partners to the joint venture, much of it in the form of technology transfer. A similar transfer of knowledge may take place directly between partners who collaborate by means other than setting up a separate joint venture. This form of transfer involves the movement of existing technology, knowledge, or management practice into an organizational setting for which such transfer represents a new knowledge input. The second learning process is different because it involves the creation of *new* knowledge, or at least a *substantial transformation* of existing knowledge, within the ambit of the cooperative venture. This process implies that mutual learning occurs through a constructive integration of the different inputs offered by the partners and their members. This type of learning is qualitatively different from learning through knowledge transfer, and its realization presents a correspondingly greater challenge. It is, nevertheless, one of the potential prizes of cooperation between organizations that can offer one another valuable complementary knowledge. The third learning process, which Lindholm (1997) calls 'harvesting' (p. 141), involves the retrieval of knowledge that has been generated in the joint venture or other collaborative unit and its internalization within the parent firms so that they can use it in other areas of operation. These processes indicate that strategic alliances can provide a means to acquire or generate knowledge that might otherwise not be available. Alliances can also be an important vehicle for the incorporation of new knowledge into practice, particularly through the medium of joint ventures or cross-partner teams that work on the necessary adaptation and application of knowledge drawn from the partners.

Within strategic alliances, even the transfer of *existing knowledge* or practice presents difficulties. Abstract and codified knowledge reverts to the status of new data for people receiving it for the first time, if they are not in a position to validate it immediately. Members of alliances will be unable to validate such knowledge if it is not structured in a manner familiar to them. Technical knowledge qua knowledge should be easier to absorb if it is already classified and codified according to widely accepted and known standards, but this characteristic is less likely to be true of organizational and strategic knowledge. The creation of *new knowledge* needs to draw upon and synthesize a number of different knowledge systems that the alliance has brought together, none of which may have been applied previously to the specific circumstances faced by the alliance. A number of attempts maybe required to arrive at acceptable and effective schemes of classification and codification, and at least one pilot project may be necessary to demonstrate the appropriateness of the emerging approach for the new circumstances.

In addition to the problem of translation from the milieu of one alliance partner to that of another, the passage of information and knowledge between different actors or groups in the learning cycle implies that constructive relationships must exist between them for the process to be effective. Knowledge is socially constituted because it is created or compiled by social groups who have a sense of ownership over it. As noted earlier, this sense of ownership means that the groups will attribute

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value to the knowledge and will assume the right to arbitrate over this value. In other words, social identity is vested in different systems and bodies of knowledge. When knowledge is transferred between organizations, or when the members of different organizations pool their knowledge resources, how the people concerned perceive the validity of what is, for them, novel knowledge will impinge on the extent to which they are prepared to accept and work with this knowledge.

The issue of validity is likely to be more sensitive for organizational and strategic knowledge and practice than it is for knowledge of a primarily technical nature. Although technical knowledge is also socially constituted, several of its characteristics reduce its sensitivity to being transferred or shared between different organizations. One of these characteristics is that technical knowledge is often expressed in a widely accessible, standardized form, some of it in the form of international standards. Another is that technical knowledge is accepted as valid by trained specialists who have a relatively cosmopolitan identity that can bridge discrete organizational identities. Problems can arise, of course, when knowledge generation requires the collaboration of people from different specialties, for then the presence of widely varying technical standards can increase the problem of integration.

15.3.2 Competitive and Collaborative Learning between Organizations

Strategic alliances face a trade-off between the opportunities they offer for generating and sharing knowledge and the possibility that the partner may act opportunistically. This question comes down to whether the partners' learning goals are complementary or competitive, either in terms of the cost—benefit calculus for forming and maintaining a specific alliance or, more fundamentally, in terms of their location within industry or market structures. Khanna, Gulati, and Nohria (1998) identified two qualitatively different kinds of benefit that are available to partners in alliances in which their primary objective is to learn from each other. The first kind is private benefits, which a firm can unilaterally acquire through learning from its partner and apply to its operations in areas not related to the alliance's activities. In this case, the partners have divergent goals for learning through an alliance. The presence of private benefits is likely to encourage a race

between the partners to exploit opportunities to learn from each other. Once they have done so, there is little incentive for the winner to continue the cooperation. Even out-and-out competitors may collaborate in order to benefit from learning opportunities, but they will be wary about sharing their knowledge. A fundamentally competitive relationship will render the balance between the contributions each partner makes to the alliance, and the benefits each is able to extract from it, a

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sensitive issue. Such a relationship encourages opportunism. In this kind of situation, the cooperation is often relatively short-lived, and the partners may well revert to competing with each other if and when their alliance breaks up.

The second kind is common benefits, which arise from mutual learning within the scope of the alliance and apply to the alliance's own operations. Common benefits foster continued cooperation and investment in the use of alliances as vehicles for mutual learning. Many strategic alliances are formed between organizational partners who perceive that they can benefit from their complementarities. This perception gives them a common interest in learning how to extract the potential synergies between their respective competencies. An absence of fundamental competition between the partners will also promote their sharing of knowledge and its accumulation as an alliance asset over time.

There are therefore two possible learning situations within a strategic alliance. One, competitive learning, is based on an underlying attitude of competition between the partners; the other, collaborative learning, is based on an underlying spirit of collaboration between them.

Competitive learning denotes a situation in which one alliance partner intends to learn as much as possible from the other rather than adopt mutual learning as the priority. Reporting on his investigations of international strategic alliances, Hamel (1991) described this 'competition for competence':

[M]anagers often voiced a concern that, when collaborating with a potential competitor, failure to 'outlearn' one's partner could render a firm first dependent and then redundant within the partnership, and competitively vulnerable outside it. The two premises from which this concern issued seemed to be that (1) few alliances were perfectly and perpetually collusive, and (2) the fact that a firm chose to collaborate with a present or potential competitor could not be taken as evidence that that firm no longer harbored a competitive intent vis-à-vis its partner, (p. 84)

Hamel pointed to the possibility that asymmetric learning between alliance partners derives from the fact that they have failed, or are unwilling, to transform their partnership into a fully cohesive organization. The lack of perfect collusion is a failure by the partners to achieve total integration of their operations within the joint venture. A race develops between the partners to learn from the other, for their own advantage rather than for the benefit of the alliance as an organization in its own right. Performance in this race is associated with inter-partner bargaining power. The partner with the most bargaining power can, during the formation of the alliance, establish conditions favourable for it to achieve asymmetric learning by, for instance, insisting that the other partner's technology be made fully available.

The prisoner's dilemma applies to learning within a competitive strategic alliance. That is, opportunism between partners is encouraged when an individual partner can gain considerably by renegeing on the other. Such behaviour, however, takes away the possibility for partners to gain collectively. The prisoner's dilemma paradigm in fact indicates that alliance partners are likely to learn the most together

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when they all choose collaborative learning strategies, which involve high levels of openness (transparency) and receptivity to new knowledge. This model of being a 'good partner' in strategic alliances points to the benefits of collaborative learning.

Collaborative learning can occur when alliance partners do not regard themselves as fundamentally in competition or as having irreconcilable long-term interests. Alliances between organizations can enhance learning on this basis in two main ways. One involves learning *from* a partner; the other involves learning *with* a partner.

In the first case, collaboration provides access to the partner's knowledge and skills, which can include product and process technology, organizational skills, and knowledge about new environments (among other things, an introduction to key relationships within them). Transfer can be achieved in several ways, such as through the exchange of data sets and secondment of key personnel, with the intention of grafting new knowledge onto, or even having it transform existing activities. If the alliance takes the form of a new unit, such as a joint venture established for a specific purpose, the knowledge sought from partners may be relevant only to and embodied only in the outputs of that unit. Such learning may not have any general value outside the scope of the particular collaboration. There is, however, always a danger of underestimating that value for the partner's overall organization of knowledge acquired in this way. Moreover, there is a

risk that imported new knowledge, like any graft, will be rejected.

The second mode of collaborative learning in a strategic alliance involves learning with a partner. One example is the accumulation of mutual experience with and knowledge about how to manage interorganizational cooperation per se. This benefit is becoming increasingly significant in a world where business activity is coming to be organized through strategic alliances, including those whose management has to cope with cultural differences and unfamiliar environments. This mode of learning is primarily concerned with organizational issues, although for a successful collaboration it is also important that its members learn how to learn together (deutero-learning). Collaborative know-how might be used later in the design and management of other partnerships. The case of the Royal Bank of Scotland and the Banco Santander (Box 15.3) illustrates both aspects of collaborative learning.

Box 15.3 The Royal Bank of Scotland and the Banco Santander

The alliance between the Royal Bank of Scotland and the Banco Santander of Spain was formally announced on 3 October 1988. It is an open-ended collaboration rather than a formal joint venture, though as a demonstration of commitment, the two companies exchanged a small percentage of their equity. At the time, the alliance was motivated primarily by the desire of both banks to find a European partner to help position themselves in the approaching European Community single market. Each bank was looking for a partner of similar size, with compatible cultures and activities and similar attitudes towards the single market.

Although these similarities were to prove beneficial for cooperation between the two banks, early difficulties in realizing potential synergies between them led to the establishment of *gateways* in the form of a specially appointed alliance director in each bank through whom all alliance traffic would pass. These gateways have continued to play an essential role in promoting joint projects as vehicles for mutual learning.

The alliance has evolved through an intensification of cooperation between the two banks, most notably in the development and launch of an Interbank Online System in 1994. Senior officials from both partners perceive the alliance as having promoted organizational learning of mutual benefit. Each partner was able to learn about and absorb improvements in banking operations as well as learn over time how to deepen the process of working together. Initially, the major areas of cooperation between the two banks included access to branches, shared ownership of German and Belgian banks, offshore banking in Gibraltar, merchant banking, technology development, and acquisitions.

Comments by senior managers in both banks illustrate the learning that has been achieved with the alliance partner, again, not all of it anticipated. The chief executive of the Royal Bank commented: 'We have been surprised by the intangible benefits from the alliance, as each side has got to know and observe the working practices of the other. Simple things like the differing ways in which we prepare and organize meetings; the nature and content of papers presented to internal audiences; and differences in structures and reporting relationships have all provided ample food for thought.'

With reference to business lending, the Royal Bank's alliance director remarked: 'Santander have put a huge amount of time and expertise into that area. And there is a huge amount of money that can be saved in terms, not just of cost, but also of time. So I think that is learning from what they have learned... it's the capability of the other organization, it's being prepared, both ways, to help out.'

The director of the alliance for Banco Santander added other examples: 'We have learnt best how to launch an interest bearing current account after having learnt what RBS's experience has been. We admire how they develop business by phone, even selling loans. At top management level we are exchanging views on how best to handle credits and geographical risks. On the Royal side, they look at our branch network with five people or less per branch, and compare it with their average of nine. Probably they will centralize the back office more. Also they are very good at serving customers, and we are very good at developing profitable customers... those are processes that are on going and enriching on both sides.'

The same Banco Santander director noted that 'Selling is one thing that very definitely, and from the top down, the Royal Bank has incorporated from our culture'.

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15.3.3 Requirements for Learning through Strategic Alliances

Even when partners undertake to collaborate with a view to mutual benefit and learning, certain requirements must be met in order for it to take place. One is that

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learning is included in a partner's intentions when that partner enters into a cooperative relationship, or at least that the partner is willing to take the opportunities for learning that arise. Another is that the partner must have the necessary capacity to learn. This capacity includes an ability to internalize within its core organization the knowledge that it acquires through an alliance so that this knowledge becomes a collective organizational property. This requires effective storage and dissemination of the new knowledge within the organization. Success in achieving these steps should help convince management of the value of learning, so increasing its intent to learn further in the future. Although all these requirements appear to be rather obvious, they are not easy to achieve in practice. The links between them are depicted in Figure 15.2. To a large extent, the same requirements for learning to take place also apply to a unitary firm, with top management intent to learn being substituted for partner intent.

15.3.3.1 Partner Intent to Learn

In a detailed study of nine international alliances, Hamel (1991) found that the partners varied considerably in the extent to which they viewed the collaboration as a learning opportunity and that this variation was an important determinant of what they actually learned. For instance, several of the Western firms had not intended to absorb knowledge and skills from their Japanese partners when they first entered alliances with them. The Western firms initially appeared to be satisfied with substituting their partner's competitive superiority in a particular area for their own lack in this area. In every case where this intent of substitution was maintained, the partners failed to learn in any systematic way from their collaboration.

To illustrate a clear intention to learn from interorganizational cooperation, Inkpen (1995) cites the case of an American automotive supplier (referred to as 'Beta Corporation') that, like many others in its sector, was losing market share to Japanese companies in the early 1980s. The formation of a joint venture with a Japanese company that was closely linked to one of the largest Japanese car

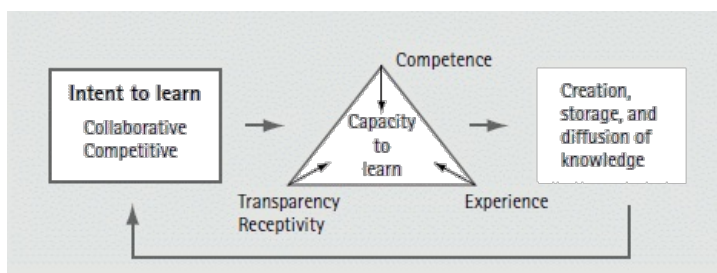


Fig. 15.2 Requirements for learning in alliances

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manufacturers was seen by the American company's management as an excellent opportunity to learn about superior Japanese management practices.

15.3.3.2 Learning Capacity

A partner's capacity to learn will be determined by a combination of factors: the transferability of the knowledge, the receptivity of the partner's members to new knowledge, members' competencies to understand and absorb the knowledge, and their incorporation of the lessons from previous experience.

15.3.3.3 Transferability

Unlike the other three factors listed, transferability refers to a quality of the knowledge itself rather than to a feature of the would-be learning partner. Transferability concerns the ease with which a type of knowledge can be transferred from one party to another. Explicit knowledge, such as technical product specifications, is relatively easy to transfer and be absorbed. Not so with tacit knowledge, which is less codified than explicit knowledge.

15.3.3.4 Receptivity

The more receptive people are to new knowledge, the more likely they are to learn. When the members of a collaborating partner organization adopt the attitude of students towards their counterparts in the other partner organization, they are being more receptive to insights from that partner than if they assume that they already possess superior techniques, organizing abilities, and strategic judgement. For example, some Chinese partners in joint ventures with foreign companies make the mistake of assuming that they cannot learn useful

motivational practices from their foreign collaborators because they already have a superior knowledge of Chinese workers. To an equal degree, some foreign partners unwisely disdain advice from their Chinese collaborators on the best ways to relate to external governmental authorities that wield an unusual degree of influence over the conditions for doing business.

Hamel (1991) found several factors to influence a partner organization's receptivity. Firms that had entered an alliance as laggards, in order to access an easy way out of a deteriorating competitive situation, tended to possess little enthusiasm for learning from the other partner or little belief that they could achieve it. They tended to be trapped by deeply embedded cultures and behaviours, which made the task of opening up to new knowledge all the more difficult. In clinging to the past, they were not capable of unlearning, a necessary prerequisite to learning.

Receptivity also depends on the availability of time and resources for engaging in the processes of gathering knowledge and embedding it within the organization's own routines through staff training and investment in new facilities. The paradox of

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deteriorating competitiveness as both a pressure to learn and a constraint on being able to achieve learning becomes critical for poorly performing partners. In some alliances, this paradox may be resolved through the additional cash and other resources that are injected by the other partner. If a collaborator has, however, slipped far behind its partner(s) in the skills and competencies necessary for it to absorb new knowledge, it may find it extremely difficult to close the gap.

15.3.3.5 Transparency

Transparency denotes the openness of one partner to the other(s), and its willingness to transfer knowledge. Hamel (1991) found that some degree of openness was accepted as a necessary condition for carrying out joint tasks in an alliance, but that managers were often concerned about unintended and unanticipated transfers of knowledge—transparency by default rather than by design. In countries without fully effective legal systems, firms are legitimately concerned to defend their intellectual property against unauthorized appropriation by a partner and these concerns can reduce their level of transparency.

15.3.3.6 Competence

Cohen and Levinthal (1990) argued that a firm's 'absorptive capacity' is a crucial competence for its learning and innovative capabilities. Absorptive capacity is a firm's ability to recognize the value of new, external information, to assimilate it, and to apply it to commercial ends. This capacity is largely a function of the firm's level of prior related knowledge. Hence, existing competence favours the acquisition of new competence, which implies that a partner entering an alliance with learning objectives should ensure that it does so with not only a positive attitude towards learning but also at least a minimal level of skills. If those skills are not available, the training of staff to acquire them should be an immediate priority.

Competence is required at all three levels of knowledge—strategic, organizational, and technical—if a partner is to take advantage of the opportunities for learning offered through cooperation with other organizations. At the strategic level, collaboration that is perceived as peripheral to a partner's overall strategy will probably yield relatively few opportunities for the transfer of learning from the collaboration back into the partner's main organization. This tendency emerges because the lack of perceived strategic importance is likely to reduce the level of interaction between the partner and the cooperative venture. A related problem arises from a partner's failure to appreciate that it can derive broad strategic lessons from the cooperation rather than ones restricted to comparatively narrow issues. General Motors, for example, approached its NUMMI joint venture with Toyota with the expectation that what it could learn from Toyota would be confined to production skills in the manufacturing of small cars. As a consequence, although

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the lessons to be learned were actually of general relevance, they were not applied to General Motors as a whole (Inkpen 1995).

Competence at the organizational level is required in order to make the most innovative use of new knowledge or technology that is acquired. For example, the introduction of mill-wide computerization in the paper and pulp industry opened up radical, new possibilities for the constructive redesign of mill organization and the combined empowerment and enrichment of mill workers' jobs. This new technological development came about through close cooperation between paper manufacturers and system suppliers. The ability of paper manufacturers to take full advantage of the potential offered by the new systems depended on their organizational vision and competence in terms of being able to envisage and accept radically changed roles and relationships (Child and David 1987).

It is self-evident that a partner needs to possess adequate skills that enable it to absorb and use new technical knowledge. With the

complex nature of many modern technologies, and with the importance of deploying them in conjunction with the 'human' skills and motivations of employees, multidisciplinary technical competence is required. In particular, inadequate competence in the partner's language can cause problems in international alliances. As Hamel (1991) noted, the fact that almost all employees in Western firms lacked Japanese language skills and cultural experience in Japan limited their access to their Japanese partners' know-how. Their Japanese partners did not suffer from a lack of language competence to the same degree, and they benefited from the access that their linguistic skills gave them to their partners' knowledge.

15.3.3.7 Previous Experience

Two aspects of experience can facilitate learning through strategic alliances. The first is experience of having formed and managed previous alliances. The second is experience of having collaborated with the same partner.

Previous experience of alliances is a double-edged sword for subsequent learning capacity. Previous alliance experience might well enhance a partner's capacity to learn through subsequent alliances. Such an outcome depends, however, on the lessons of that experience being passed on to the persons involved in a subsequent alliance and on the relevance of the experience (Simonin 1997). If the circumstances of a subsequent alliance are very different, the formalization of experience gained from a previous alliance into an organization's routines can actually create a barrier to further learning.

If there is an intention to collaborate for mutual benefit on a long-term basis, the experience of working together should in itself create relationship assets for the partners. They will acquire some understanding of each other's capabilities, and they are likely to have established a degree of mutual confidence and trust. The fact that they have already got through the initial period of working together will have

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generated a degree of commitment to one another. For these reasons, previous cooperation between firms has been found to increase the probability of new alliances between them. A lack of familiarity between the partner firms does complicate the creation of a learning relationship, but if this lack means that the partners have very different competencies, then this actually enhances their mutual learning opportunity because of the distinct knowledge bases that they can offer each other.

15.3.4 Barriers to Organizational Learning in Strategic Alliances

Section 15.2 noted that many barriers to learning arise from the internal differentiation within organizations and the external differentiation between them. Differentiation forms the basis for distinct social identities and perceptions of competing interests. When two or more organizations form an alliance, such barriers are typically augmented by their different corporate cultures and, in the case of international alliances, their different national cultures. If the organizations regard each other competitively, the barriers will be raised even further.

Obstacles to the necessary transference of knowledge are liable to arise because of the divergent ways of sense-making associated with the social identities of the different parties that make up the collaboration. When the members of different organizations come together to collaborate, they bring their own social identities with them. These social identities are sets of substantive meanings that arise from a person's interaction with different reference groups during his or her life and career. They therefore derive from belonging to particular families, communities, and work groups within the context of given nationalities and organizations. Social identities are therefore based on social identifiers such as nationality, ethnicity, occupation, education, and family and are enhanced by differences in language and acquired behavioural norms. International strategic alliances thus face particular learning challenges because they incorporate multiple social identities.

Some types of internationally transferred knowledge impinge on group social identity more than others. This observation is particularly true of knowledge relating to new systems and strategic understanding. Resistance to the transfer of such knowledge is likely to heighten the separate identities of the partner groups, including those groups transferring the knowledge, for whom persuading their recalcitrant colleagues may take on the nature of a crusade. The relation between social identity and international knowledge transfer is a dynamic one, in which contextual factors such as the performance of the joint venture also play a part

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through inducing changes in factors that condition the process, such as partner dominance and compatibility. By contrast, the sharing and transfer of technical knowledge are normally less socially sensitive and, indeed, are likely to benefit from the common engineering or other occupational identity shared by the staff directly involved.

The cooperation of Western multinational companies with firms in eastern Europe provides an instructive instance of the problem. Western

companies are expected to make a significant contribution to the transformation of the former Communist countries of Eastern Europe, not only as financial investors but also as agents of organizational learning. This collaboration often takes the form of joint ventures that dramatically illustrate how social identities, stemming from the mixed social constitution of such ventures, have an impact on the learning process. For example, Simon and Davies (1996) described barriers to learning by local managers working in international joint venture companies located in Hungary. They drew upon the self-reported experience of the managers and upon their own experience as process consultants in the Hungarian operation of a major multinational. Their conclusion was that a major barrier to learning among Hungarian managers stemmed from the vulnerability of their social identities. In the threatening conditions of radical organizational change, and with expatriate managers often being perceived as arrogant and controlling, the learning that occurred mostly amounted to compliance, which was a strategy for personal survival. Their study illustrates how the social-psychological conditions affecting learning are informed by the context of meanings that Hungarian managers ascribe to the evolving conditions of transformation in which they find themselves.

15.4 Implications for Practice

The most important underlying practical implication of what has been said in this chapter is that successful organizational learning has to be actively managed. This applies equally to learning within firms and through inter-firm alliances.

Within firms, top management, project coordinators, and specialist experts each have important contributions to make. Senior management has to recognize the significance of organizational learning in order to legitimize the process and encourage it through the provision of suitable resources and incentives. More difficult, it should also be receptive to the possibility that it is standing in the way of organizational learning. Otherwise, as noted earlier, pressures to remove the top management team are liable to build up eventually. The role of project coordinators

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or leaders is a vital and demanding one, in view of the challenge of securing integration among differentiated contributors to the learning process. It will involve conflict management and require a combination of considerable interpersonal skill, ability to understand disparate corpuses of knowledge, and personal respect within the organization. The potential contribution to organizational learning of specialist holders of both explicit and tacit knowledge is obvious, but their attitude towards and interpretation of organizational learning cannot be taken for granted especially if they could regard its outcome as misguided or even threatening.

Organizational competence is not only a scarce resource but one that can become politically charged because it resides in different individuals and groups. The garnering of such competence, both to promote new learning within the organization and to mobilize existing sources of knowledge (especially tacit knowledge) effectively, therefore requires active measures to promote a shared sense of purpose and identity among organizational members. Defining and articulating the purpose of organizational learning is a key to success in this respect, just as it is for the promotion and acceptance of organizational change. This requirement again draws attention to the critical role that senior management will normally have to play in the process.

Another practical implication stems from a recognition that both action and structure have an essential part to play in organizational learning, and the fact that the two are in dynamic tension. Action is part and parcel of the learning process, while structure consolidates and diffuses the benefits of the learning that is achieved. In order to allow scope for both, it may be necessary to plan for the organizational learning process to swing between an emphasis on action and one on structural consolidation. If this practice is not realistic in view of the pace of external change, then provision must be made for the two to proceed in parallel without one excluding the other. If a firm pursues learning and change to the exclusion of all else, and this pursuit threatens its very culture and fabric, then it is soon likely to suffer the withdrawal of cooperation in that endeavour from the very groups on which the process relies, since they will have had no opportunity to redefine their role and identity within the organization in a manner which they can accept. If, on the other hand, too much emphasis is placed on maintaining consensus and 'not rocking the boat', rather little learning (and even less implementation) is likely to take place.

Strategic alliances can foster learning both by facilitating knowledge transfer and by promoting knowledge creation on the basis of complementary competencies. We have seen that there are certain basic requirements for learning to take place through alliances. Alliances are not necessarily undertaken with learning objectives in mind, though such objectives are becoming more common than they used to be. The first requirement, therefore, is that the partners must have an intention to use the alliance as a learning opportunity. Second, they must have the capacity to learn, which involves, *inter alia*, receptivity to new knowledge on the part of their members, the necessary competencies to understand and absorb the knowledge,

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and an ability to manage the process of knowledge acquisition in an alliance, informed by previous experience or external advice.

There are likely to be even more barriers to organizational learning in the hybrid forms that alliances take than in unitary firms. These barriers can be cognitive and emotional, as well as organizational. A lack of intent to learn can be an important cognitive barrier to realizing the learning potential of collaboration with other firms, and it may be due to ignorance of this potential. Emotional barriers can arise because of mistrust between alliance partners, and efforts to develop personal relationships between the partners' senior managers may be required to overcome this. Senior managers have a major role in reducing organizational barriers to learning through alliances. They are in a position to establish procedures such as regular meetings and visits between partner staff, regular staff rotation between the alliance unit and partner companies, and sharing of information. Perhaps most important of all, they can signal the importance they attach to learning through collaboration in a way that influences the behaviour of people throughout the partner firms. Provisions for ensuring open communications, and the appropriate use of information technologies to support these, also help to reduce barriers to learning and to ensure that information is available to feed the learning process. Indeed, some writers have for this reason advocated that firms provide for a 'redundancy of information' namely, 'information that goes beyond the immediate operational requirements of organizational members' (Nonaka and Takeuchi 1995: 80).

15.5 The Future

The strategic importance of achieving organizational learning will increase in the future. Although the subject has been much discussed, we still know rather little about some important issues. Perhaps most fundamental of all is the fact that we do not yet fully understand how the way firms are constituted as organizations affects their capacity to learn. This chapter has, for example, raised the issue of how the power, interest, and identity of different parties to learning, both with and between firms, might present problems. The barriers to organizational learning are bolstered by embedded interests, identities, and mindsets. The nature and implications of this social embeddedness merit further attention. They are likely to impact on the processes whereby information is communicated and utilized in the organizational learning process. The extent to which there are social interconnects and shared identities between organizational and community groups may also be relevant to the ability of the former to access relevant external information, including signals of impending changes in market and political conditions. This issue arises, for

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example, when multinational companies seeking to establish themselves in new territories decide whether they require the assistance of partners who are rooted in the local society.

We also do not know much about the impact that the structures of strategic alliances have on learning. Equity joint ventures, for instance, can be constituted in terms of different partner shares in their ownership, and this difference has a significant impact on the participation that the partners enjoy in joint venture control. Dominance by one partner may well inhibit the opportunities for any of the partners to learn through their collaboration. The dominant partner may well discount the value of its junior partner's knowledge and not be prepared to listen to it. The junior partner may not be in a sufficiently influential position to acquire new knowledge through participation in key managerial or technological processes. For this reason, a balanced partnership within a strategic alliance may provide the best opportunities for mutual learning to take place.

The ways in which the evolution of strategic alliances and networks is associated with their learning process is another subject deserving further investigation. These are potentially fragile forms of organized activity in which cooperation requires considerable nurturing. One would expect that the evolution of alliances, if achieved, from an initially contract-based relationship between partners towards a trust-based relationship would create conditions in which their mutual learning process can correspondingly evolve from the sharing only of explicit knowledge to a willingness to share tacit knowledge as well. The potential for exchanging and building upon tacit knowledge is held to be a distinctive advantage of alliances in contrast to arm's length market relations. The experience of mutually beneficial learning should, in turn, promote trust between alliance partners and thus itself foster further strengthening of the alliance. We need to know more about how different forms of learning can have a positive impact on the evolution of alliances. In principle, technical learning can strengthen alliances' resource bases, organizational learning can enhance their capability to organize complementary assets, and strategic learning can align their partners' goals more closely than in the past.

15.6 Summary

The ability to achieve organizational learning is an increasingly important strategic resource for firms. It can take place through acquiring knowledge from external sources or through its creation within the firm. Neither process is likely to take place very effectively, if at all, without certain supporting conditions being in place. One condition is that management actively encourages learning throughout the firm.

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Another is that the firm should have the capacity to learn. This requires people who can absorb, evaluate, and disseminate acquired knowledge. The creation of new knowledge, both within firms and through inter-firm alliances, benefits from a pooling of complementary knowledge resources. This depends critically on finding ways to promote cooperation and synergy between the groups of people involved.

There are many obstacles to organizational learning due to entrenched practice and thinking, and to the barriers in the way of communication and cooperation between different groups. A key requirement for successful organizational learning is therefore that managers understand its strategic value and are aware of the conditions for achieving it. The process has to be actively managed.

References

Büchel, B., Prange, C., Probst, G., and Ruling, C.-C. (1998). *International Joint Venture Management: Learning to Cooperate and Cooperating to Learn*. Singapore: Wiley.

Bc rms, T., and Stalker, G. M. (1960). *The Management of Innovation*. London: Tavistock.

Child, J. (2001). 'Learning Through Strategic Alliances', in M. Dierkes, A. B. Antal, J. Child, and I. Nonaka (eds.), *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press, 657–80.

——— and David, P. (1987). *Technology and the Organisation of Work: The Move Towards Millwide Systems*. London: National Economic Development Office.

——— and Faulkner, D. (1998). *Strategies of Co-operation*. Oxford: Oxford University Press.

——— and Heavens, S. J. (2001). 'The Social Constitution of Organizations and Its Implications for Organizational Learning', in M. Dierkes, A. B. Antal, J. Child, and I. Nonaka, (eds.), *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press, 308–26.

——— and Loveridge, R. (1990). *Information Technology in European Services*. Oxford: Blackwell

Choi, C. J., and Lee, S. H. (1997). 'A Knowledge-based View of Cooperative Interorganizational Relationships', in P. W. Beamish and J. P. Killing (eds.), *Cooperative Strategies: European Perspectives*. San Francisco: New Lexington Press, 33–58.

Ciborra, C. U., Patriotta, G., and Erlicher, L. (1996). 'Disassembling Frames on the Assembly Line: The Theory and Practice of the New Division of Learning in Advanced Manufacturing', in W. J. Orlikowski, G. Walsham, M. R. Jones, and J. I. DeGross (eds.), *Information Technology and Changes in Organizational Work*. London: Chapman & Hall, 397–418.

Cohen, W. M., and Levinthal, D. A. (1990). 'Absorptive Capacity: A New Perspective on Learning and Innovation'. *Administrative Science Quarterly* 35: 128–52. [Link](#)

Dierkes, M., Antal, A. B., Child, J., and Nonaka, I. (eds.) (2001). *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press.

Dodgson, M. (1993). 'Organizational Learning: A Review of Some Literatures'. *Organization Studies*, 14: 375–94. [Link](#)

end p.470

Faulkner, D. (1994). 'The Royal Bank of Scotland and Banco Santander of Spain', in J. Roos (ed.), *European Casebook on Cooperative Strategies*. Hemel Hempstead: Prentice-Hall, 157–73.

Ghoshal, S., and Bartlett, C. A. (1995). 'Changing the Role of Top Management: Beyond Structure to Processes'. *Harvard Business Review*, 73/1: 86–96.

Graham, P. (ed.) (1995). *Mary Parker Follett—Prophet of Management*. Boston: Harvard Business School Press.

Grinyer, P. H., Mayes, D. G., and McKiernan, P. (1988). *Sharpbenders*. Oxford: Blackwell.

Hamel, G. (1991). 'Competition for Competence and Inter-Partner Learning within International Strategic Alliances'. *Strategic Management Journal*, 12/Summer Special Issue: 83–103. [Link](#)

——— and Prahalad, C. K. (1994). *Competing for the Future*. Boston: Harvard Business School Press.

Humble, J., and Jones, G. (1989). 'Creating a Climate for Innovation'. *Long Range Planning*, 22/4: 46–51. [Link](#)

Inkpen, A. C. (1995). *The Management of International Joint Ventures: An Organizational Learning Perspective*. London: Routledge.

Khanna, T., Gulati, R., and Nohria, N. (1998). 'The Dynamics of Learning Alliances: Competition, Cooperation, and Relative Scope'. *Strategic Management Journal*, 19: 193–210. [Link](#)

Kidder, J. T. (1982). *The Soul of a New Machine*. Harmondsworth: Penguin.

Larsson, R., Bengtsson, L., Henriksson, K., and Sparks-Graham, J. (1994). *The Interorganizational Learning Dilemma: Collective and Competitive Strategies in Network Development*. Working Paper 22, Institute of Economic Research, School of Economics and Management, Lund University, Sweden.

Lawrence, P. R., and Lorsch, J. W. (1967). *Organization and Environment: Managing Differentiation and Integration*. Boston: Harvard Business School Press.

Lindholm, N. (1997). 'Learning Processes in International Joint Ventures in China'. *Advances in Chinese Industrial Studies*, 5: 139–54.

Moingeon, B., and Edmondson, A. (eds.) (1996). *Organizational Learning and Competitive Advantage*. London: Sage.

Nonaka, I., and Takeuchi, H. (1995). *The Knowledge-Creating Company*. New York: Oxford University Press.

Powell, W. W., Koput, K. W., and Smith-Doerr, L. (1996). 'Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology'. *Administrative Science Quarterly*, 41: 116–45. [Link](#)

Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.

Simon, L., and Davies, G. (1996). 'A Contextual Approach to Organizational Learning: The Hungarian Case'. *Organization Studies*, 17: 269–89. [Link](#)

Simonin, Bernard L. (1997). 'The Importance of Collaborative Know-how: An Empirical Test of the Learning Organization'. *Academy of Management Journal*, 40: 1150–74. [Link](#)

Simons, R. (1995). 'Control in an Age of Empowerment'. *Harvard Business Review*, 73/2: 80–8.

SPRU (Science Policy Research Unit, University of Sussex) (1972). *Success and Failure in Industrial Innovation*. London: Centre for the Study of Industrial Innovation.

Von Krogh, G., and Roos, J. (eds.) (1996). *Managing Knowledge: Perspectives on Cooperation and Competition*. London: Sage.

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16 Strategy in Service Organizations

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16.1 Why Study Services?

THE objectives of this chapter are to emphasize the economic importance of the service sector, to explain those factors which make services different from products, to apply strategic management concepts and frameworks to service organizations, and to consider the causes and strategic implications of the internationalization of services.

Are there any real differences between products and services? Is it appropriate to manage service businesses in the same way as manufacturing businesses? Can the concepts and frameworks with which strategists analyse industries, firms, and competition be applied unchanged and as effectively to services? These questions are the starting point for this chapter. In this chapter I take the view that services do differ from products in ways that can, and should, make a difference to strategists.

However, it is important to distinguish between service industries and service firms. Much has occurred in the last twenty years in the development of service industries. As a result of macro-environmental factors, not least technological innovations that have had a profound impact on the range of services and service delivery channels, many service industries have been transformed. They have become concentrated rather than fragmented; international rather than local; and capital-intensive rather than labour-intensive. On the other hand, service firms are

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still defined by characteristics that distinguish them from manufacturing firms. Service firms are 'upside-down' firms. They can best be understood as inverted pyramids. The most important focus for service firms, and where a major proportion of resources is allocated, is at the borderline of contact between the firm and its customers. Of course all organizations state as a matter of course that they are customer-focused. Yet with manufacturing organizations their major activity occurs away from the eyes and ears of customers: not so with service firms. Their major activity occurs in combination with customers and that is part of the definition of what we mean by a service. Whether these differences in characteristics and strategic focus between product firms and service firms are still significant will be explored as we progress through this chapter.

16.2 The Economic Importance of the Service Sector

Most of the frameworks that dominate strategic management thinking have been derived from research into manufacturing industries. Indeed strategic management research and teaching have historically focused on manufacturing industries. This imbalance fails to reflect adequately the place of services and service firms in world trade, in employment and job-creation or in lifestyles (Riddle 1986; Dicken 1992). This holds true for the developing as well as the developed economies. Very different developing economies such as Malawi and Morocco have each experienced major growth in employment in services in the last twenty years. The percentage of total male jobs in the service sector increased from 12 per cent in 1980 to 25 per cent in 1997 in Malawi and from 29 per cent to 63 per cent in Morocco in the same period. For female employment the growth in service sector jobs has been even more striking, growing from 3 per cent in 1980 to 20 per cent in 1997 in Malawi and from 14 per cent to 51 per cent in the same period in Morocco. As Table 16.1 indicates, a significant service sector is not confined to the advanced economies. Deserving of comment in Table 16.1 are the high rates of growth in services trade that it illustrates in all geographic regions of the world. Service growth of something under 400 per cent in this time period may not be surprising in the 'High Income' areas, but the average growth of the 'Low and Middle Income' areas has also been more than 400 per cent, albeit with much variation by region.

Trade in services is increasingly significant within world trade. From 1994 to 1999 world exports in commercial services such as transport, travel, banking, insurance, communications, and professional services expanded from \$1.1 trillion to \$1.3 trillion. Around 20 per cent of world trade takes place in services rather than in

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Table 16.1 Exports of commercial services (\$m) by geographic region, 1980 and 1998

	1980 (\$m)	1998 (\$m)	
World area			
LOW AND MIDDLE INCOMETOTAL		65,588	268,012
East Asia and Pacific		9,415	87,727
Europe and Central Asia		16,176	79,857

Latin America and Caribbean	15,885	49,216
Middle East and North Africa	12,099	23,387
South Asia	4,014	14,418
Sub-Saharan Africa	8,048	13,471
HIGH INCOME TOTAL	297,904	1,048,583
North America	45,225	270,238
Europe - EMU	140,850	420,008

Source: World Bank World Development Report, 1999.

goods. Whilst Table 16.1 shows that services are a major contributor to GDP in all groups of economies, that contribution does vary considerably directly with income level. Table 16.2 confirms that the top ten countries in the export of commercial services are all advanced economies.

Table 16.2 Top ten services exporting countries, 1994 and 1999

1994		1999	
Country ranking	\$bn	Country ranking	\$bn
1 United States	178	16.51 United States	252
2 France	89.5	8.32 United Kingdom	101.8
3 Italy	59.3	5.53 France	79.1
4 United Kingdom	58.2	5.44 Germany	76.4
5 Japan	57.1	5.35 Italy	64.3
6 Germany	52.8	4.96 Japan	60.3
7 Netherlands	39.8	3.77 Spain	53.6
8 Belgium/Luxembourg	36.6	3.48 Netherlands	53.6
9 Spain	33.4	3.19 Belgium/Luxembourg	37.5
10 Hong Kong	31.2	2.910 Hong Kong	34.9

Source: WTO World Development Indicators, 2000.

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Table 16.3 further illustrates the major and expanding role in employment and job creation played by service industries in the advanced economies. Service growth has partly come as a consequence of recent organizational trends towards de-layering, outsourcing, and downsizing. Specialist service suppliers are replacing service provision previously carried out in-house. Firms like EDS, the US technology and facilities management company, have grown rapidly, nationally and internationally, as external suppliers of information technology (IT) design and management for client companies. Growing capital intensity and rising productivity of specialist service companies (both mostly IT-related) makes internal service provision increasingly inefficient.

Perhaps more significant for understanding the strategic implications of this large trade in services worldwide is to distinguish the *nature* of service activities that are typical of developing economies and advanced economies, respectively. Service industries are a very broad set of industries. They normally include: wholesale and retail trade, restaurants and hotels, transport and travel, construction, storage, communications (including telecommunications, media, and publishing), finance and insurance (both retail and commercial), property management and transactions, business services (cleaning, waste disposal, catering, computing, software), professional services (accounting, legal, consulting, engineering), community, social, health and personal services (from hairdressing, domestic cleaning, and plumbing to car repair and funerals). See Figure 16.1 for an overview of the different types and range of service sector activity.

As may be expected, much of the service sector in developing economies consists predominantly of relatively low skilled services in wholesale and retail

Table 16.3 Selected developed economies, % employment in services, 1980 and 2000

Country	1980	2000 (est.)
United States		67.178
Canada		67.275
Belgium		64.372
Australia		64.771
United Kingdom		60.473
France		56.969
Finland		52.266
Japan		54.562
Italy		48.761

Source: 1990 Statistical Yearbook, United Nations, New York; and author estimates from a variety of sources including ILO Key Indicators of the Labour Market, 1999 issue.

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trades, restaurants, tourism, and personal services. By contrast in the developed economies, in addition to such low skilled and low technology 'hamburger flipper' jobs, the services sector contains a high proportion of high skilled and high technology jobs in media, software, financial, professional, and business services.

<p>Financial services e.g. commercial and retail banking, credit cards, brokerage, foreign exchange, portfolio management</p>	<p>Communication services e.g. postal, telecommunications, courier, news agencies, data transmission, film distribution</p>
<p>Transportation services e.g. passenger transport, freight, car rental, tour operators</p>	<p>Insurance services e.g. life, pensions, property, actuarial, reinsurance</p>
<p>Construction services e.g. site preparation, building, maintenance</p>	<p>Education services e.g. schools, colleges, universities, language, training and development</p>
<p>Business services e.g. property, equipment rental, professional services (accounting, legal, advertising, design, consulting, computer, surveying, engineering), cleaning, catering, packaging</p>	<p>Health-related services e.g. dental services, hospital, medical, testing, counselling, advisory, psychiatric, non-human health (veterinary)</p>
<p>Trade services e.g. retailing, wholesaling, agencies</p>	<p>Personal services e.g. domestic cleaning and maintenance, plumbing, hairdressing</p>
<p>Hotel and restaurant services e.g. hotel, accommodation, food and beverage</p>	<p>Recreational and cultural services e.g. entertainment (music, theatre, cinema), parks and gardens, monuments, media</p>

Fig. 16.1 Services sector diversity

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The term 'quaternary sector' (Dicken 1992: 350) has been developed to describe these more sophisticated service jobs, just as 'tertiary' sector is the common term for any non-product economic activity 'Quaternary' is an attempt to separate out the enormous range of types of service activity. It recognizes the degree of difference between a waiter and a corporate financier or a plumber compared to a judge. Services industries and service firms sometimes suffer from a bad press in the advanced economies which appears to imply that only jobs in manufacturing are 'real' jobs. A well-known apocryphal comment of this type is that 'a nation can't live by selling each other hamburgers'. Such comments exacerbate a widespread misunderstanding about the range and types of services jobs; it draws its analogies from the tertiary sector whilst largely ignoring the power and sophistication of the quaternary sector in developed economies.

16.3 The Particular Characteristics of Services

Service industries and service firms have distinct characteristics arising from the distinctive characteristics of services. In a light-hearted but relevant definition, Gummesson (1987: 22) defined services as 'something which can be bought and sold but which you cannot drop on

your foot'. Service industries therefore are those whose output is not a physical good or product but an intangible 'experience'. The IMF defines international transactions in services as: 'the economic output of intangible commodities that maybe produced, transferred and consumed at the same time' (IMF 1993). This definition gives an indication of some of the reasons why services deserve to be discussed and understood in strategic terms separately from manufacturing industries. It suggests a set of specific differences between products and services. These differences have been well documented, in the services marketing literature (see e.g. Zeithaml, Parasuraman, and Berry 1985; Zeithaml and Bitner 1996) but are largely absent from discussions within strategic management. Amongst the most widely recognized attributes of a service as compared to a product are those of 'intangibility' of the service offering and the simultaneous production and consumption of the service (Sasser, Wycoff, and Olsen 1978). Altogether there are four distinct characteristics that define the most important differences between products and services: *intangibility*, *heterogeneity*, *simultaneous production and consumption*, and *perishability* Table 16.4 provides us with a summary of each of these characteristics, contrasts them with the comparable characteristic for a product and explores some of the consequences of each difference. I shall discuss each of the four.

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Table 16.4 Services are different

Products	Services	Implications
Tangible	Intangible	Services are difficult to describe, exhibit, or communicate.
Easy to standardize	Heterogeneous; difficult to standardize	Guaranteeing a standard experience to the customer is problematic. Final implementation of the strategy is dependent on employees. Quality of service delivery is always partly personality-dependent.
Production and consumption occur separately	Simultaneous production and consumption	Customers cannot 'test drive' a service. Services are higher risk purchases for customers. Both customers and employees participate in and affect the service outcome. Some parts of a service always need to be decentralized close to the customer.
Durable	Perishable	Services cannot be kept in stock, returned, or re-sold. Capacity utilization is problematic but critical

16.3.1 Intangibility

Intangibility is probably one of the most influential factors that needs to be understood in relation to services. What are you actually buying when you buy a service? Is it something you can take home with you after you have bought it as you can a product? The answer to that question is usually 'no'. As a result of intangibility many services have no second-hand or part-exchange value. There is nothing you can sell on to someone else if you decide you do not like it when you get home. The nature of a service offering therefore maybe best understood as an 'experience' or 'outcome' of an interaction, rather than a thing. This also explains why one of the most effective ways of selling a service is through word-of-mouth recommendation. Since you cannot go and inspect it and decide if you like it before you buy it, the most reliable way of making the purchasing decision is on the recommendation of someone else who has already experienced it.

However, these statements concerning the inevitability of 'intangibility' in services are only accurate up to a point. There are many services that are highly tangible, or at least which contain a large amount of tangible content wrapped up with the intangible part. In fact services may be tangible or intangible or a combination of both (Levitt 1976, and 1986:74). Figure 16.2 represents a different way of understanding the significance of intangibility for services. It illustrates degrees of intangibility

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for different types of products and services, but it represents intangibility by means of the idea of how easy or how difficult it is for consumers to evaluate the product or service that they think they have purchased. To do this Figure 16.2 draws on the economic concepts of 'search', 'experience', and 'credence' goods. A 'search' good is one which can be researched or tested by the potential consumer before deciding whether to buy it or not. An obvious example is going for a test drive in a car or going to a furniture showroom and sitting in an armchair or lying down on a bed to see if they are comfortable before you buy. An 'experience' good is one that you have to have already experienced or consumed before you can judge whether it was satisfactory or not. Did you enjoy your holiday? Was the meal in the restaurant good? Did the restaurant have a good atmosphere that contributed to your overall enjoyment of the evening? The earliest point at which these things can be judged is while you are consuming them or afterwards. For 'credence' goods the situation is even more extreme. Even after you have bought them *and* consumed them you are still unsure as to whether they are satisfactory or not. Consider insurance policies or pensions or hiring a lawyer or an accountant. You have to assume that what you have bought is appropriate for your needs and usually you have no way of judging otherwise, until something goes wrong at a later stage. These are credence goods because you have to believe that they are fit for the purpose for which you bought them.

As you can see in Figure 16.2, the implication is that services are mostly either experience goods or credence goods. This creates a particular relationship between

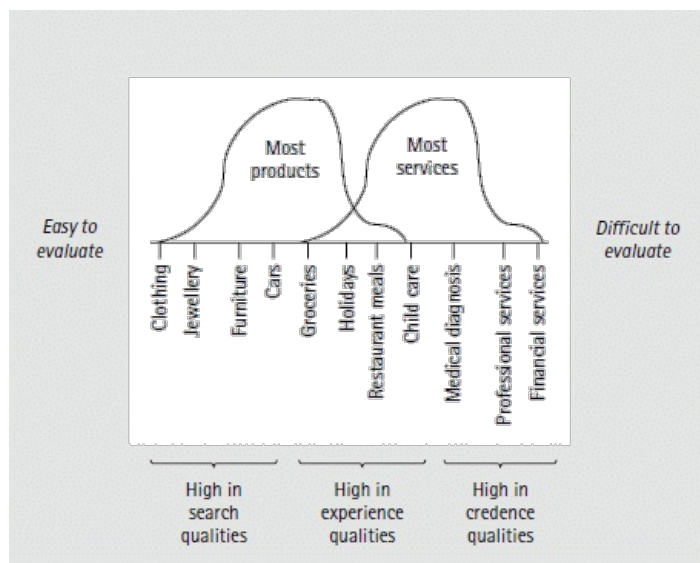


Fig. 16.2 Continuum of evaluation for different types of products

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the service provider and the customer that the strategies of service firms must embrace.

16.3.2 Heterogeneity

Successful strategies for service businesses are about the management of the quality of the experience for the customer or client. It is this quality of outcome for the customer, often known as 'the moment of truth', by which a service strategy is judged (Normann 1991). This would be equally true of a firm of accountants or an airline as for a restaurant. Indeed Jan Carlzon, ex-CEO of SAS Scandinavian airlines, made his reputation as a service strategy guru with remarks that captured the significance of such 'moments of truth' for service firms. He called his own autobiography *Moments of Truth* (Carlzon 1987) and he explained its meaning by saying that as Chief Executive of a service business what he was in charge of was managing several thousand moments of truth every day. To understand this fully I must further explain the meaning of moments of truth and their relationship to the concept of heterogeneity.

Services, as Normann (1991) has cogently argued, are 'personality-intensive'. They commonly rely on people to deliver them by means of a face-to-face encounter with the customer or client. The distinctive feature of heterogeneity in a service business is located around what is usually referred to in the services literature as 'the service encounter' (Normann 1991; Bowen, Chase, and Cummings 1990; Gabbott and Hogg 1998), i.e. the employee/customer interaction typical of service businesses. Service encounters may be notoriously 'heterogeneous'. By that I mean that they are difficult to standardize and guarantee because the encounter depends on the personality or mood of the individual responsible for that service delivery encounter in that organization at that point in time on that day. Thus, it is not whether a particular service business is capital-intensive or labour-intensive (and services may be either or both) which is the significant factor, it is the fact that the quality of service delivery is always partly personality-dependent. That is why so many service firms have training based around what are often ironically called 'smile' programmes; intensive customer care programmes which try to teach staff the importance of their manner and personal behaviour in relating to customers.

What is interesting in strategy terms is that service strategies depend least on the quality of the analysis going into the design of the strategy in the first place and most on the implementation of that strategy by the front-line staff of the organization. Paradoxically, usually these front-line service staff are relatively junior within the structure of the organization, at a modest level in the reward structure and with relatively little influence on strategic decision-making. Yet they are critical to the strategy implementation and hence, the service experience for customers.

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Thus, for strategies in service industries, strategy implementation takes on a new and powerful dimension. In implementation terms, it is control of the offering at the transaction point with the customer or client that is critical. It is at that point that the service characteristic of heterogeneity occurs and makes its impact.

16.3.3 Simultaneous Production and Consumption

With a product, production of the product and then consumption of that product by a customer occur at different times. They follow the sequence of production, distribution, and then consumption. With many services it works rather differently. The sequence is more likely to be distribution, followed by production and consumption occurring simultaneously. For example, a hotel is built first, then the customers and staff stay in it together, co-producing the service experience of staying in that particular hotel. Or for an airline, it has first to negotiate access to a route to fly from country A to country B and airport hubs to take off and land at, and only then can passengers, flight crews, and cabin staff all come together to create and experience the journey. For most professional service firms (PSFs), the accountant, or consultant, or lawyer interacts directly with the client to discuss the service required and how it will meet that client's needs (Lowendahl 1997).

A more extreme example relates to personal services such as hairdressers. The hairdressing salon is first established, then clients make appointments and arrive to have their hair cut. They have to physically be present to participate in the delivery of the service and it is certainly an experience good, since the client will not be sure until it is over whether they like the haircut or not. By that time it is too late to change your mind, at least until next time when you may choose a different hairdresser/service provider. This illustrates another aspect of simultaneous production and consumption of a service: risk. Since you cannot 'test drive' many services as you can most products, purchasing a service is a higher risk for the customer than purchasing a product. It is also more difficult to return a service if you are dissatisfied with it. All you can do is go to a different provider next time: change your accountant; wait for your hair to grow out and then try a different hairdresser; not stay in that hotel again. That is another reason why the most secure way to buy a service, especially experience or credence services, is by the recommendation of someone else who has used it. It is a way of reducing the risk of purchase. Another way of attempting to reduce the risk of simultaneity of production and consumption of a service is to buy a service brand. The service brand should represent to the consumer some form of trust and guarantee of standards of service delivery. The growth of service brands has been a feature of service strategies in the last decade. This has even been occurring in personal services such as hairdressing, where chain brands such as Toni & Guy come to mind which have also been spreading internationally.

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The final point to consider in relation to simultaneous production and consumption of services is that it has implications for the design of international strategies for service firms. If the main part of the service has to be delivered close to the customer and the service firm provider must therefore be located close to the customer for reasons of simultaneity, this will inevitably limit the scope for international strategies in that service sector. This service delivery characteristic has even begun to bite in the delivery of international services via the Internet. For example, there has been much discussion of the gradual realization by e-retailers that unless their product can be delivered by pure Internet transaction, e.g. downloading a software program or a piece of music, at some point service companies like amazon.com have to provide channels for local delivery of the service output. I will return to this issue of the need for parts of a service always to be located close to the customer when I discuss the internationalization of services below.

16.3.4 Perishability

The first point to make about perishability of services is that it makes it difficult to apply the concept of inventory or stock to services. You cannot actually store a meal in a restaurant or a holiday or an hour of billed time with a lawyer. They are certainly part of the total capacity of that restaurant, that holiday company or airline charter flight or law firm. However, if they are not sold, i.e. used, on a particular day and time, they cannot be stored and brought about again tomorrow for another potential customer to look at. That means that capacity utilization in service businesses is crucial. Optimal capacity must be sold today because if not, it is gone forever. That is why PSFs are obsessed with 'utilization' of their professional staff, the number of billable hours they have sold of their time in a given period. That is the PSF equivalent of productivity output, except unlike a car or a chair or a bed, you cannot attempt to sell the same hour tomorrow. If it remains unsold today, it is lost. The hour sold tomorrow is a different hour, a different unit of output.

That is the perishability issue for the service firm. For the customer the problem is slightly different. As referred to above in our discussion of intangibility, services cannot be returned or resold. They have a fragile exchange value and no secondhand value. There are no car boot sales for services. Having said that, it is not completely true for all services. For example, there is a secondary market in insurance policies and endowment policies. These are however, credence goods as are all financial products, and the buyer and seller must agree on a putative future worth of the policy well in advance of its maturity. Some risk certainly attaches to that. We should also be aware that even though most services cannot be stored, that does not necessarily apply to all services or to every part of a service. Software programs certainly have a shelf life and can be stored and reused, just as some

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product items are rather perishable, such as fresh foods. Another aspect of perishability to consider is that often there are parts of the service that can be stored and reused even if the service as a whole cannot. Within advertising agencies, for example, some of the research or the advertising design for one campaign may be relevant and reusable for a different campaign.

The strategic issue regarding perishability is that service firms must be aware of how far it applies to their business and which, if any, of the firm's activities are reusable and tradeable. It also has massive implications for the operational systems and procedures within a service firm. They must be designed for optimal capacity utilization, since for most service firms that is what both revenue and margins are dependent upon (Quinn and Paquette 1990; Normann and Ramirez 1994).

16.4 The Management of Intangibles

Having discussed the meaning and relevance of the four key characteristics of services, it may be useful to consider an example of what this means in practice. The implications of the service encounter for a multinational hotel chain is given as an extended example (see Box 16.1). It should help clarify the definition of what constitutes a service and also to consider how firms actually design and deliver their services and then redesign them over time as customer requirements develop and change.

Box 16.1 Managing the service encounter in a multinational hotel chain

The first Novotel hotel was opened by two entrepreneurs near Lille airport in France in 1967. The first Novotel outside France was opened in 1973. By 2000 the chain had grown to 280 hotels in 46 countries around the world. The hotels provide 43,000 rooms and employ 33,000 people. Novotel is just one of the hotel chains belonging to the Accor Group of France, one of the world's largest hotel groups. It operates more than 2,000 hotels worldwide offering more than two million rooms at different ratings and service levels. Other chains in the group include Sofitel, Mercure, Ibis, and Formule 1. These range from 4-star (Sofitel) to 1-star (Formule 1).

In search of consistency: avoiding heterogeneity

The fundamental characteristic of the Novotel hotel concept is the international standardization of the offering. What is therefore required is consistency of the offering in every location in which it is available. This means putting in place a system that is robust enough to generate consistent service standards to satisfy customer expectations, irrespective of local conditions or infrastructure. Some of the elements of standardization are easily realizable. The design, style, and layouts of the hotels are reproduced to precise specifications. For example, bedroom size is standard throughout Europe at 24 square metres although this does differ for Novotel Asia. The Novotel chain is positioned as a 3-star chain worldwide, which means that certain facilities such as bedroom furniture, fixtures, and fittings or outside amenities such as swimming pools and amounts of free car parking space are always available at all Novotel units. However, the more interesting elements of the Novotel offering for the purposes of this discussion are the management processes which enable consistent service levels to be delivered at all locations worldwide in order to implement the strategy of international standardization.

Since hotel design and guest bedrooms are standardized, basic housekeeping and maintenance functions can in turn be standardized. That means that the training procedures for staff in all basic functions may be standardized. This standardized approach to the core service concept places special requirements on the staff. They are the key to delivery of consistent service standards wherever the customer is staying. Standardized procedures and centrally designed training programmes are one of the core mechanisms for securing such international consistency.

Maintaining universal quality standards as the chain grew rapidly over a 25-year period became more and more problematic, especially when many new staff were recruited from other hotel groups with different working practices. A system to monitor standard procedures was introduced in 1987. It regulated the thirteen main points of staff/customer interaction. These were: reservation, arrival/access, parking, check-in, hall, bedroom, bathroom/WC, evening meal, breakfast, shops, bar, outdoor games/swimming pool, and checkout. Each of these key interaction points was divided into a series of compulsory directives for staff, e.g. how to set out a bedroom, lay a place setting in the restaurant, or welcome a guest. A booklet containing all 95 of these compulsory directives was issued to all staff and was a mainstay in the induction of new staff. An internal team of inspectors visited each hotel approximately twice each year to monitor standards. They functioned in the same way as 'mystery shoppers' in that they made reservations, arrived, stayed, and departed incognito. On completion of their stay they would make themselves known to the hotel General Manager (GM) for review and discussion. Percentage grades were awarded and recommendations made. This system, while helping Novotel to control and consolidate after a period of rapid growth, gradually became over-rigid and procedural in orientation.

The dangers of over-standardization: in search of simultaneity

This procedural rigidity became an increasing problem, leading to poor responses to customer requirements. At a meeting in 1992 for all Novotel general managers, the relationship of hotel GMs to their staff teams was redefined from hierarchical to 'enabling'. The 95 directives were abolished. A new corporate slogan 'Back to the Future' ('Retour vers le futur') was adopted to reflect the outlawing of the bureaucratic style of standardization and a return to Novotel's entrepreneurial roots. Interfunctional groups were set up across hotels and countries. GM groups were established which clustered together special interests across countries, to share ideas, innovations, or best practice. One and a half layers of management were eliminated, leaving only one direct reporting layer between GMs and the (then) two co-presidents of Novotel.

The role of the GM was changed to that of 'coach', responsible for developing the competencies of his team. It was redefined to emphasize team management and interpersonal skills such as conflict resolution, either with subordinates or guests. In service encounter terms, the purpose for GMs was to capture the spirit of 'maitre de maison', much closer to the social role of a ship's captain than a line manager.

Both the structure and operations of Novotel's corporate headquarters, as well as operations and routines in every hotel in the chain, were affected by these changes.

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It is important too that many modern service businesses contain a shifting mixture of 'hard'/tangible and 'soft'/intangible elements. The 'hard' elements are increasingly amenable to management by means identical to a manufacturing business. The 'soft' (i.e. the service encounter) elements retain the distinctive needs of service management and service delivery. Thus, the role of management in services is particularly demanding, especially for complex services with a high intangibility content. What Heskett (1986) called 'the service triangle' (Figure 16.3) describes the iterative relationship between the service company, its employees and its customers—a relationship that places severe demands on internal management operational systems and procedures. This is because often the strongest relationship in a service business is 'relationship 3' between the employee (the 'server') and the customer. Relations between the company and the employee ('relationship 1') and the company and the customer ('relationship 2') may be more attenuated. It is the balance in the triangle that enables the company to carry out the effective management of service 'intangibles'. This requires both management interpretation of the external environment and customer needs ('relationship 2'), together with internal learning from and with the employees ('relationship 1'). Thus, all three sides of the service triangle are needed to support the service encounter (side 3).

In terms of the Service Triangle (Figure 16.3), Novotel had over the years become solely focused on relationship 1, that between the company and its employees. Even this relationship was seen by the management as being mainly about controlling the actions of employees so as achieve predictability and standardization. It had gradually lost sight of relationship 2 (between the company and the customer) and relationship 3 (between the employee/'server' and the customer). The changes made in the company in the 1990s were aimed at realignment of the service triangle and returning it to a better balance. For example, the change in the role of corporate headquarters meant that it began to act as an information coordinator to channel information gathered about relationship 2 (company/customer) through relationship 1 (company/server) to feed into and support relationship 3 (server/customer), the service encounter. Collaboration between hotels and levels of staff increased. GMs organized self-help clusters. Training sessions were shared across the group. Informal groupings of staff were created in some hotels to discuss innovations. The strategic management task for Novotel was to create

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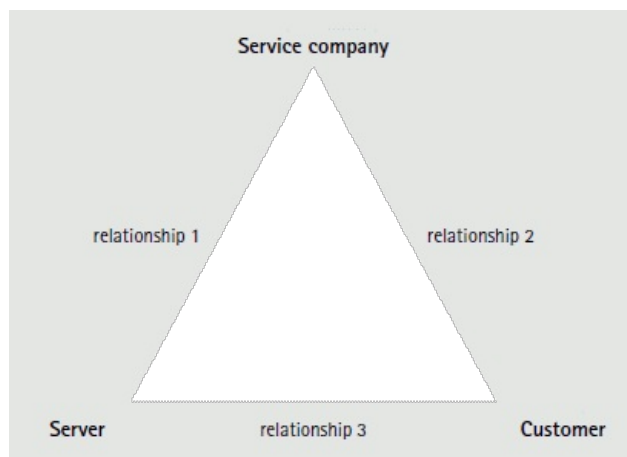


Fig. 16.3 The service triangle

flexible systems for meeting customer expectations in all its hotels around the world. It struggled to achieve consistency in standards of service whilst still enabling all front-line and managerial staff to use their initiative in dealing helpfully with customer needs. In attempting to achieve these essential but often mutually contradictory objectives, Novotel started to become closer to an upside-down organization. This meant that it had to find ways to allow its front-line staff, those in direct contact with customers, to drive the organization, with everything else in support.

16.5 The Value Chain Applied to Services

An issue of general concern for strategic management in service organizations may be that sometimes, existing strategy frameworks have to be reconsidered when applied to services. To demonstrate this point, I will look briefly at the well-known strategy concept of the value chain. Some readers may already have realized the issue here, since we touched upon the problem earlier in my discussion of simultaneous production and consumption in services. Then the point was made that manufacturing organizations follow one sequence of business activities: production, distribution, and then consumption; while many services follow the sequence of

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distribution, followed by production and consumption occurring simultaneously. Consider the implications of that sequencing of activities for the traditional construction of the value chain in strategic management. In the traditional value chain applied to manufacturing businesses, marketing, sales, and service occur last. When used for a service business these activities should come *first*, since services are sold first and then produced and consumed afterwards. Consider the simplified indicative value chain for a hotel given in Figure 16.4 to illustrate this important point.

It becomes highly inappropriate to apply a value chain analysis of a service starting with inbound logistics as in the traditional model. The traditional model was designed for manufacturing businesses and needs adapting for services, as with many frequently used strategy frameworks.

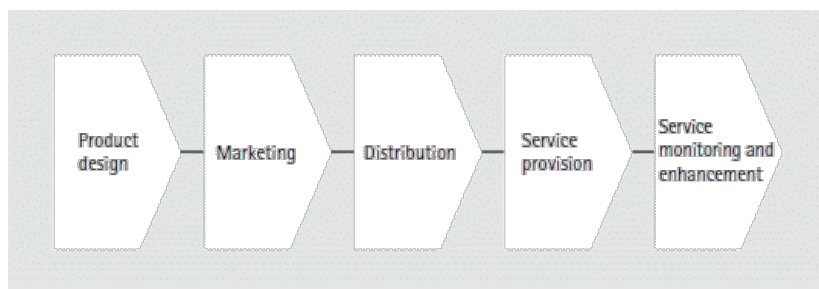


Fig. 16.4 Indicative value chain of a hotel

16.6 Scale and Scope in Services

More capital-intensive asset structures and high fixed costs have resulted in a prolonged process of concentration and restructuring of service industries for the last twenty years. High levels of merger and acquisition activity have been commonplace in many service sectors (e.g. hotel chains, accountants and management consulting firms, airlines, software, information services, telecommunications, media, financial services, etc.). Concentration has thereby increased enormously. Service industries are no longer fragmented industries. World market leaders have been created in banking, logistics and distribution, communication, consulting and business services, fast food, leisure companies, airlines, software and advertising agencies, telecommunications and media such as broadcasting and publishing, retailing and professional services such as law, accountancy, and surveying. The degree of concentration amongst PSFs has reached the point where genuine concerns

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exist about lack of client choice. Many sectors resemble oligopolies, albeit with a long 'tail' of smaller firms coexisting as local providers in most markets. Increased potential for economies of scale (Katrisha and Scordis 1998) and economies of scope has great significance for the potential strategies of service firms and especially so on the relative benefits of international strategies for service firms which I shall discuss more fully below. Table 16.5 lists some of the potential sources of economies of scale and economies of scope in a variety of service industries.

Any asset that yields scale economies can also be the basis for scope economies if it provides input into two or more processes. Economies of scope are usually defined as existing when the cost of producing two outputs jointly is less than the cost of producing each output separately (Teece 1980). In clarifying the relationship between economies of scope and the scope of the firm, Teece (1980) specified two important circumstances when integration of activities across a multi-product firm would be needed to capture scope economies. First, if two or more products depend on the same proprietary know-how. Second, when a specialized indivisible asset is a common input into two or more products. Both of these conditions are now routinely to be found in service firms.

A simple example of the interaction between scale and scope benefits deriving from the same proprietary know-how and indivisible asset is the central role played by computer reservation systems (CRS) in the activities of airlines, hotel chains, car rental firms, etc. These not only support the geographic spread of the business and the rapid processing of volumes of transactions, but also provide customer databases for cross-marketing of services and the capability to design and deliver completely new services. Airlines use sophisticated software to maximize yield from

Table 16.5 Sources of economies of scale and scope in services

<i>Economies of scale</i>	<i>Economies of scope</i>
Geographic networks	IT/IS and shared information networks
Physical buildings or equipment	Shared knowledge and know-how effects
Purchasing/supply	Product or process innovation
Marketing	Shared R&D
Logistics and distribution	Shared channels for multiple offerings
Technology/IT/IS	Shared investments and costs
Operational support	Reproduction formula for service system
	Range of services and service development
	Branding
	Training
	Goodwill and corporate identity
	Culture
	Privileged access to parent services

Source: Adapted from Segal-Horn (1993).

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higher revenue seats on all flights, a major contribution to profitability in a service business with high fixed costs. Database management provides potential for economies of scope for retail chains and financial services to target cross-selling of additional products. Advertising agencies derive economies of scale from bulk purchasing of media time and space, and economies of scope from the internal transfer of market and design data in the management of large advertising campaigns for clients. In the retailing sector, the Italian leisure-wear retailing group Benetton created a new retailing model by its innovative use of information systems. Twenty years ago Benetton became the first retailer to replace inventory with information in the management of supplies to its worldwide retailing outlets and in using real-time information from point-of-sale systems to tailor seasonal production to demand. This model is now commonplace within the retail sector.

Dunning (1989) suggests that know-how and specialized assets often combine in service firms. Knowledge is often a special asset in services. The capability to acquire, process, and analyse information is the key asset or core competence of many services (e.g.

financial, software, brokerage, professional, and the agency function of computerized reservation systems linking many service businesses). 'Know-how' here literally consists of the knowledge of how to combine human and physical resources to produce and process information.

Additionally, despite the service industry characteristics discussed earlier, knowledge need not be perishable. It has a shelf life, during which time it maybe repeatedly used at little or no cost (e.g. an advertisement, a software program). Many services comprise a firm-specific pool of tacit knowledge. Service firms (e.g. management consultancies and other PSFs, fast food chains, hotel chains) are increasingly attempting to codify this inherited knowledge as the basis of standardization of their products, to achieve cost reduction and increased productivity, as well as reliability of service levels. Some of the strongest brands in services are based on perceived accumulated know-how, e.g. McKinsey, Reuters, Disney, McDonald's. Information-intensive assets are absorbing heavier investment in fixed costs which in itself exerts pressure to lower unit costs by spreading output over larger markets (for scale economies) and a wider variety of products (for scope economies).

Box 16.2 Scale and scope in practice: American Express

The financial services firm American Express is a company in which scale and scope operate in a massive way. By making full use of the scale and scope economies available to it over time, it created a world-scale service industry which has existed for more than a century.

American Express was founded in New York in 1850 by Wells & Fargo, progressing rapidly from the express carriage of cash and parcels, to bonded carrier of freight and finance. It handled European imports to all US Customs interior ports-of-clearance. Investment in its distribution network proceeded beyond national US coverage to the beginnings of its European network in freight forwarding. It expanded from an initial office in Liverpool in 1881, to 300 European agency offices in 1890. Beyond scale expansion of the network, these also provided considerable expansion in scope, through the increased range of services offered, utilizing additional capacity in the same network of outlets. The company was already benefiting from a virtuous cycle of scale, volume, and scope effects which enabled it to advertise in brochures in Europe at this time that American Express could: 'pay money on Telegraphic Order, at a moment's notice, between points thousands of miles apart and sell small Drafts or Money Orders which... can be cashed at 15,000 places' (Amex Company documents).

It extended into Europe by beginning its own directly owned chain of offices in Europe in 1895. The freight express business encompassed many developing financial service activities, e.g. paying foreign money order remittances from emigrants, or commercial credit transactions begun in Rotterdam in 1907. There were major new product development initiatives:

- Amex Express Money Order (1882)
- Amex Travellers Cheque (1891)
- Amex Charge Card (1958).

Sale of travellers cheques unleashed demand (scale) to provide additional services (scope) to tourists, such as itineraries and tickets. A European, and eventually worldwide, travel network was established and combined with the Amex portfolio of financial products and services to create a new set of asset structures for a specialized segment of the financial services industry. By the 1960s 38,000 outlets worldwide sold American Express 'travel-related financial services' (TRS). The TRS business included the American Express core charge card, travellers cheques, and travel shops. The TRS target market is the international (mainly business) traveller. The TRS aim is to provide a standard quality service to the business traveller, wherever that service is taken up. TRS was still the source of 70 per cent of the American Express Company's revenues in 2000.

Whether its scale, scope, and branding advantages are still sufficient to fight off the current host of new efficient competitors in its main markets (e.g. VISA, almost every bank or financial services organization offering a no-fee, low-interest credit card) remains to be seen. It faces very tough competition and continual pressures on price and margins from both trade and retail customers.

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Some more general observations may be made concerning scale and scope in services. The grid in Figure 16.5 gives a historical representation of the spread of availability of scale and scope economies in different types of service businesses. The top right corner of the grid is illustrated by information service firms such as Reuters, Bloomberg, and Dun & Bradstreet; by financial services companies such as American Express and VISA International; by the major international airlines; by travel firms such as Club Med. The top left corner is illustrated by retailers (grocery/food and non-food). Electronic-point-of-sale equipment (EPOS) and concentration of retailer buying power resulted in high scale effects for large retailers, initially combined

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with limited scope opportunities. However, many large food multiples also trade in clothing, home-wares, and even financial services such as in-house credit cards (store cards), savings products, and, more recently, bank accounts. So the large retailers' position on the grid has been gradually moving from top left towards top right. Bottom right of the grid is illustrated by a wide range of professional service firms (PSFs) such as accountants, lawyers, management consultants, surveyors, civil engineers, recruitment agencies ('headhunted'), and so on. PSFs may be high on potential scope economies from such factors as shared client and project databases or shared teams of expertise across national or regional offices, but with low potential economies of scale, since these services are frequently customized, often within different national regulatory frameworks. Bottom left on the grid consists typically of small-scale personal service businesses, which are highly location-specific.

Although Figure 16.5 represents the traditional view of these varying types of service businesses, what is interesting for this chapter is the drift towards top right on the grid for many firms in these different service sectors. I have already mentioned such a migration of positioning for the large retailers. Food (e.g. Wal-Mart, Aldi) and non-food (e.g. IKEA, Toys-R-Us) retailers are seeking scale benefits from volume purchasing and scope benefits from investments in information technology, logistics networks, and international branding. Another well-publicized example of such

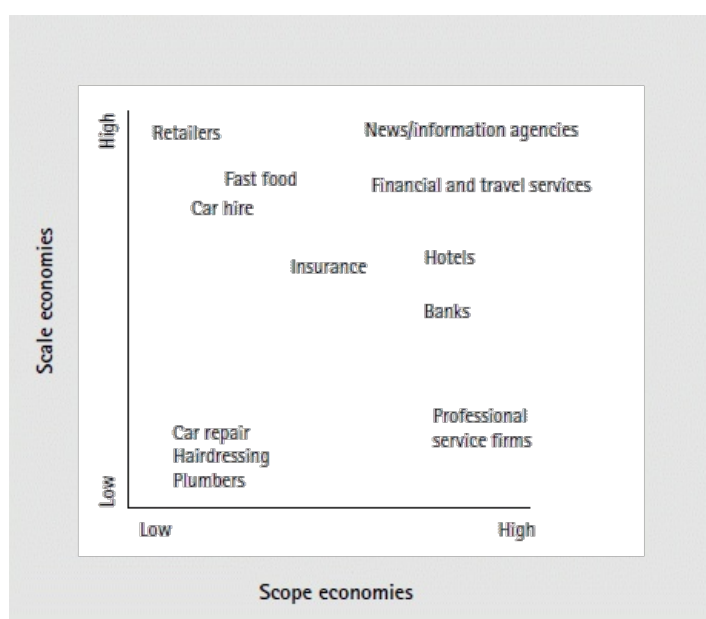


Fig. 16.5 Potential for scale and scope economies in different types of service businesses

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migration concerns the PSFs and has given rise to a proliferation of large mergers amongst PSFs to try to capture these increasing benefits to scale. The creation via mergers (e.g. KPMG, PricewaterhouseCoopers) of very large international accounting and consultancy firms, which is mirrored in other PSF sectors such as legal firms, is part of the search for greater efficiencies in capacity utilization of scarce resources and for productivity gains from implementation of standardized methodologies. Insurance companies in Europe (e.g. Allianz of Germany, Generali of Italy, Prudential of the United Kingdom) are building cross-border operations, as regulatory differences become less extreme and types of distribution channels develop and converge. Finally, many erstwhile small service businesses, such as car repair, are moving upward on the grid, for volume benefits in purchasing and operations arising from specialization and standardization (e.g. Kwik-Fit Euro specializing in repair of car exhausts or brakes only).

Clearly also, none of these structural shifts in the provision of services would be possible without at least some equivalent shift on the demand side in consumer buying behaviour. This would arise if customers perceived any benefits from size, availability, range, or price of these larger service firms. Economies of scope in services can lower transaction costs for customers. Common examples of such customer benefits include: the effect of retailer buying power and Internet price transparency and search availability on quality and price in multiple retail chains; worldwide, integrated reservation systems of hotel chains; car hire and airlines; cheaper products in banking and insurance; and the undercutting of all brokerage services such as travel agents or investment analysts. Indeed, Nayyar (1990) discusses the potential benefit to diversified service firms from leveraging customer relationships across service businesses. He argues that buyers of services will attempt to economize on information acquisition ('search') costs by transferring reputation (i.e. brands) effects to other

services offered by a firm, thus enabling the service firm to obtain quasi-rents from firm-specific buyer-seller relationships. This research contributes to our understanding of the growing importance of the branding of services and reinforces, for services, two of the main competitive advantages of being multinational corporations (MNCs). First, the ability of MNCs to create and sustain a successful brand image and its concomitant goodwill; second, the ability to monitor quality and reduce buyer transaction costs and uncertainty by offering services from multiple locations.

16.7 Potential Pitfalls

However, despite the evidence of benefits available to both service firms and service customers from economies of scale and scope in services, a cautionary note must be sounded particularly in relation to economies of scope for service firms. Attempting

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to deliver multiple services through a single service delivery channel may sometimes have unintended negative consequences. Two different examples may be considered. Many people will have experienced some annoyance at booking a few days' holiday retreat for a special break at a quiet hotel only to find on arrival that most of the other guests are groups of business delegates. These other guests are staying at the hotel for corporate training events and using the hotel's 'conference' facilities. In the evenings large noisy groups of delegates wearing name badges fill the bar and the 'intimate' restaurant. Of course the hotel is only trying to obtain economies of scope by making the fullest use of its rooms and other facilities by selling them to different types of guests for different purposes. The problem arises from the different expectations and needs of the two types of customers/guests and their essential incompatibility in the close proximity within the same delivery channel of a service business.

Another example of a similar problem has arisen within the UK grocery retailer Tesco. In 1998 Tesco launched Tesco Direct, a new Internet business for on-line grocery shopping for home delivery by Tesco. It has been enormously successful. Tesco is judged to be the current world leader in on-line grocery shopping. The model chosen by Tesco for fulfilment of on-line orders was to use staff as stock 'pickers' to fulfil on-line orders at their existing large supermarket stores, rather than building separate dedicated warehouses for the on-line segment of the business. A problem has gradually arisen. Large Tesco stores are now the sole channel for meeting the needs of two very different kinds of shoppers: real and virtual. Guidelines have had to be introduced to control the behaviour of the 'pickers' who are shopping on behalf of the virtual customer. The pressures on them for order fulfilment within the specified time period designated by the virtual customer had resulted in unseemly scrambles in the aisles of many Tesco supermarkets. The real shoppers were being pushed aside by the representatives of the virtual shoppers. In the longer term the two businesses may have to be serviced separately from separate channels in different locations. Tesco will still derive economies of scope from branding and economies of scale from purchasing and distribution, but it may have to lose an additional scope economy deriving from the multiple use of the same delivery channel.

16.8 The Internationalization of Services

The literature on global strategy has given relatively little attention to service industries (Porter 1986; Ghoshal 1987; Yip 1992). In the last completed Uruguay

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Round of GATT, no international agreement was reached to reduce service trade barriers. Such agreements are now being addressed by its successor, the World Trade Organization. If successful in achieving a 'GATS' (General Agreement on Trade in Services), which is currently under discussion and attracting some considerable controversy, this will further simplify the internationalization of services.

In services it is often the customer who internationalizes first, with the service company following to meet the needs of important clients. This was the main trigger factor for much of the concentration in the advertising industry worldwide. Firms such as WPP or Interpublic needed to build international networks of agencies to service international clients, particularly those requiring the delivery of global campaigns. This is exacerbated by the ability of large service firms to standardize and replicate facilities, methodologies, and procedures across locations. Specialization and standardization are leading to high quality provision at lower cost to the client company or customer, whether in such different service businesses as car repair (e.g. exhaust, brake, and tyre centres) or audits. Branding of services has become an important international guarantee of reputation, quality, and consistency around the world.

International market segmentation can give advantages of economies of scale, as well as branding, marketing, and reputation benefits. For example, the business traveller as a global market segment has homogeneous international needs. That makes it an attractive and viable target market for many service MNCs since the business traveller is looking for consistency of service levels to provide strong support services and minimize the risk and uncertainty of working in many and varied locations.

International segmentation does not usually mean providing the same product in all countries, but offering local adaptations around a standardized core. Wellknown examples of this approach in services include the retail chain Benetton, which has built its whole strategy around the standardized core of Benetton's 'one united product' of casual, colour-coordinated leisurewear for the 18–25 age group and which has spawned many imitators. Table 16.6 gives a summary of the strategic issues and potential sources of international advantage on which the Benetton international strategy was originally based.

However Benetton does alter its colour palette for different market preferences in different parts of the world. In the fast food industry, global chains such as Pizza Hut, McDonald's, and KFC provide a standard core product around which local adaptations are made. For example, in France wine is sold in McDonald's outlets and tea in UK outlets. KFC adapted its large chunks of chicken to bite-sized pieces for sale in the Japanese market. As discussed earlier in relation to the Novotel international hotel chain, standardization can be taken too far in the internationalization of a service. Sources and mechanisms for responsiveness and adaptation are also needed.

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Table 16.6 Benetton's international strategy 'I am speaking of a new business reality which is extra-European in scope' (Luciano Benetton, 1982)

Rationale behind globalization

- European domestic markets are relatively small and a successful concept can reach saturation coverage fairly quickly
- the development of 'lifestyle retailing' provided a clear global market segment
- identified international market segment of leisure wear for 15–24 age group
- proprietary technology—not in a technical sense, but in the interrelationship between the business activities in the value chain: this interrelatedness providing a potential source of advantage as it is not easily imitated
- international information systems provide the channel for fast response to shifts in consumer demand and risk-free low inventory

The strategy

- putting fashion on an industrial level
- to develop 'one united product': one product line of sufficient breadth to meet the needs of similar customers worldwide

Putting the strategy into operation

- the concept: vertical integration: from design through manufacturing and distribution to retailing
- the offering: good design and colours of universal appeal
- innovative merchandizing: making space and inventory more productive
- control over store design and location
- inventory is replaced by information systems links to factories
- inventory risk elimination: produce to firm customer orders
- financial risk elimination: agents and franchisees provide capital investment in stores
- logistics network: rapid access to information on demand
- innovative manufacture to allow 'customised' batch production in response to demand

Segmentation and regulatory issues merely indicate some of the most important enabling conditions upon which international market development for services rests. Structural and technological factors have also had a profound impact. Shifts from national to international growth and competition rest on fundamental changes having occurred in the historically 'local', domestic, and small-scale character of service businesses. Even highly 'local', regulated, and culture-specific services, such as education or medical services, now have international chains (e.g. AMI health care group, EF language schools, international campuses trading on well-known university brand names). Underlying these trends is what Levitt (1986) called 'the industrialization of service'.

Services can be industrialized in a variety of ways. First, by automation, substituting machines for labour, e.g. automatic car wash, ATM cash machines, Internet

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retailing, automatic toll collection, etc. Second, by systems planning, substituting organization or methodologies for labour, e.g. self-service shops, fast food restaurants, package holidays, unit trust investment schemes, mass-market insurance packages. Third, by a combination of the two (e.g. extending scope in food retailing via centralized warehousing and transportation/distribution networks for chilled, fresh, or frozen foods in technically advanced temperature- and humidity-controlled trucks). Such industrialization of service is based on large-scale substitution of capital for labour in services, together with a redefinition of the technology-intensity and sophistication of service businesses. It also assumes a market size sufficient to sustain the push for volume.

Indeed this is the most common trigger for internationalization. A firm is likely to shift to international operations when the domestic market provides insufficient volume to support minimum efficient scale. This may come earlier for service firms than for manufacturing firms, since for many types of services the option of exporting is not available. Another related trigger factor is what we may think of as 'network effects'. For many services such as telecommunications or credit cards or any travel-related service, the service will be more successful the more international presence and the wider network it has, since the service becomes more valuable to customers if they can use it in more places.

16.8.1 The Disaggregation of the Services Value Chain

Under changed technical and structural conditions, it becomes necessary to reconsider the definition of what constitutes a service and also to consider how firms actually design and deliver their services. Service firms seek to benefit from the same sources of potential advantage as manufacturing firms in their international expansion. The issue is whether such benefits from international expansion are as attainable for service firms as for manufacturing firms. Ghoshal (1987) summarized these potential objectives of international expansion as:

- national differences (e.g. to obtain beneficial factor costs, or offset countryspecific government policies)
- scale economies (e.g. to spread cost reduction and experience effects across national boundaries, to expand or exploit scale in purchasing, distribution, capital costs, etc.)
- scope economies (e.g. shared investments, knowledge, and learning across products and markets).

Enderwick (1989) provides insight into firm-specific advantages (FSA) and location-specific advantages (LSA) available to the service MNC. He builds on the work of Dunning (1989), and the eclectic paradigm of international production based on ownership, location, and internalization advantages. Location literally means—

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where do we locate this particular element of our value chain? As discussed earlier, service firms have historically been bound to locate close to the customer as a result of the simultaneous production and consumption aspect of services. We can now look at that issue again in the context of the internationalization of services, in which it has played an important part. These issues have also been conceptualized in international strategy by Porter (1986) as issues of configuration and coordination in the allocation of value chain activities by the firm.

Enderwick includes under firm-specific FSAs, factors familiar from the earlier scale and scope debate in services. These include access to assets such as goodwill and brand name, particularly important in buying decisions for services (some aspects of this were discussed above under intangibility). Scale economies are obtainable from high fixed costs and from common governance of complementary assets. Scope economies maybe derived from extending the range of services, offering innovative or complementary services that reinforce a competitive position. Under LSA factors, there are two different types. One type of service is location-specific because production and consumption are simultaneous and therefore wide international representation is mandatory (e.g. fast food chains). The other type are services that are tradeable and therefore the choice of international location would result from considerations of comparative advantage just like manufacturing MNCs (e.g. soft-ware houses located in India to take advantage of high skills and lower costs).

This brings us to the important difference between 'back-office' and 'front-office' activities in services. The difference between the two types of activity is extremely significant for the internationalization of services. 'Front-office' describes those activities that come into contact with the customer. They are front-line service encounter activities. 'Back-office' means the operational activities that can be separated (disaggregated) from the customer and possibly performed somewhere else. The larger the proportion of 'back-office' value chain activities in the service that can be separated from the location of the customer, the greater the potential benefits of internationalization for service MNCs. It becomes possible to redesign the organization's value chain to securing scale and scope advantages in the same way as manufacturing MNCs. If most activities of a service organization cannot be separated from the customer in this way, then strategic flexibility remains low and the costs and service delivery problems for an international strategy remain high. In particular it also means that service MNCs will remain unable to benefit from national differences in comparative advantage, which is one of Ghoshal's (1987) three major potential benefits from global strategies of firms. The more such disaggregation is possible, the greater the potential benefits from comparative advantage and scale and scope economies that become potentially available to service firms.

Figure 16.6 provides a simple illustration of some of these service design and reconfiguration possibilities. It reflects some of the rethinking of services that has occurred. For example, the location of retail banking in the top left box reflects the capital-intensive, volume-driven, transaction-processing part of retail banking

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operations. These activities are usually now centralized and regionalized. At the same time, the retail banks have been closing many branches and redesigning remaining branch outlets to be more customer-friendly in order to cross-sell other higher margin financial services. Software houses may sometimes appear in the top left box also if they are selling standardized rather than bespoke software packages. However, the examples in Figure 16.6 are inevitably oversimplified (e.g. it ignores the search by PSFs for methodologies to increase productivity and margins via back-office standardization, an approach for which Andersen Consulting, now re-branded as Accenture, is well known). It is inevitable that continuous shifts, such as those between standardization and customization, should result in firms continually seeking optimization of such features at the highest level of scale and cost position available to them. It is also to be expected that these positions of optimum efficiencies will be continually shifting.

16.8.2 Potential Pitfalls in the Internationalization of Services

Finally, the internationalization of service firms must be considered in relation to the special characteristics of service businesses discussed earlier. When the service network is extended globally, the management of the service encounter faces

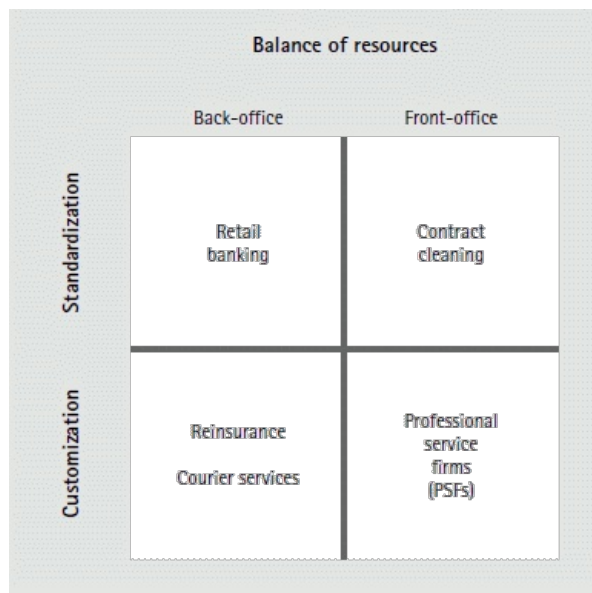


Fig. 16.6 Standardization of services

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obvious quality control problems. It must accurately reproduce the service concept in different cultural, political, and economic environments and ensure consistency rather than heterogeneity in the service offering at all transaction points. These service characteristics have provided the rationale for one of the most influential models explaining growth paths of service firms. Carman and Langeard (1980) argued that international expansion was the most risky growth strategy for service firms. This arose from the 'intangibility' and 'simultaneity' characteristics of services. They make cross-border delivery of services high risk. Carman and Langeard particularly emphasized that the quality control problems inherent in the daily operational detail of face-to-face service delivery are exacerbated when firms attempt to operate across national boundaries.

Indeed remember the discussion of exactly such international implementation problems at the Novotel hotel chain. In terms of the hotel industry, for example, tangibles such as beds or televisions are relatively more straightforward to coordinate and deliver across borders than intangibles, such as the style and atmosphere of a hotel or how staff conduct themselves in their dealings with guests (and each other). The procurement and logistics strategies and processes that support the selection and supply of beds or televisions to hotels around the world are far less complex than the shared values and tacit understandings needed to underpin the delivery of service encounter intangibles. However, as already discussed, assumptions concerning the inevitability of intangibility and simultaneous production and consumption in services are being challenged. Therefore for a considerable range of service businesses, this has reduced some of the highest risks of international expansion.

16.9 The Future

Much of the historic pattern of competition in services occurred within domestic market boundaries as a result of the small-scale, fragmented structure of service industries, and their culture-specific patterns of demand and consumption. Under these conditions, clearly scale and volume effects will be limited. However, in most service sectors restructuring has led to concentration replacing fragmentation in industry structure. In addition, some homogenization of demand in services is also observable.

Many services (e.g. credit cards, automated teller machines, airline seats, software, Internet retailing, and automatic car washes) have emerged relatively recently. Therefore, in international terms, they have the advantage of no prior patterns of usage or acculturation, thereby making them more easily acceptable across national

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boundaries. However, alongside social, cultural, and technological changes affecting demand for services, there are additional economic and political pressures on governments to create, or remove, regulatory barriers. Such structural barriers include the gradual, albeit very slow, implementation of an 'open skies' policy within EU airline competition in Europe. Other current difficulties affecting international trade in services still include issues such as intellectual copyright protection. Intellectual copyright is a major issue for service businesses, where knowledge is often the sole asset. The long delays in the implementation of 'GATS' by the World Trade Organization, and the controversy surrounding TRIPS (Trade in Intellectual Property) regulation, bring resolution of such issues little closer.

Also of relevance is the way in which the structure of service industries is evolving, often across traditional notions of industry boundaries. Restructuring and concentration in most service sectors in recent years has meant that many service industries (such as travel, leisure, fast food, financial services, information services) can now be defined as global industries. Significant competitive advantages arise from these international operations arising mainly from scale economies and technological intensity. However service industry growth has often been across traditional industry boundaries. Consider the relationships in the evolution of the following sets of service industries: retail/financial services; retail/leisure; leisure/travel; travel/hospitality; accounting/management consulting; advertising/public relations; and so on. This leads to the notion of increasingly 'fuzzy' industry boundaries in services, with industries not viewed discretely but as fuzzy sets. The example of American Express used above is an example of service firm growth within a fuzzy industry set of leisure/travel/financial services. A more recent example of another fuzzy set is technology/media/telecommunications (TMT). The international expansion and mergers of PSFs demonstrate the strength of branding across a portfolio of related services. This may suggest that 'growth' for service firms may not involve a deepening of asset structure as in manufacturing companies, but a horizontal accretion of assets across different markets and different industries (i.e. scope).

The continual search for advantages in services may gradually make simple distinctions between product and service obsolete. Borrowing from Levitt's (1986) concept of the 'augmented' product, services may increasingly cross any notional product/service boundary line. It may be useful to conceptualize services as 'augmented' products. Just as Levitt argues that augmented products arise in relatively mature markets or with relatively experienced or sophisticated customers, so many services once regarded as highly specialized (e.g. airline seats, bank accounts) have become commodities. This exerts strong pressure on service providers to simultaneously push down costs and also provide additional augmentations (e.g. better inflight catering; longer bank opening hours and a range of banking channels). This pressure is itself contributing to the erosion of clear product-service distinctions, since increasingly, manufacturing firms are seeking augmentation through service features and exploiting the manufacturing/services interface (Vandermerwe 1993).

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The separation of back-office and front-office activities, combined with the standardization of many back-office processing functions, has created the opportunity for breaking out of the requirement for simultaneous consumption and production of a service. These findings, particularly in respect of potential sources of economies of scale and scope in services, are helpful in providing guidelines for the likely patterns of future development and investment in international service firms. They allow for the reconfiguration of service value chains that can be disaggregated (just as for manufacturers) and parts of the activity may be located geographically for optimum scale, scope, or cost advantage. For example a company like VISA International has a geographically dispersed value chain whereby all its worldwide back-office data transactions (e.g. card clearances) are handled by just two global transaction centres in Japan and the United States. These types of international configurations for services are technology-dependent rather than 'service encounter' dependent. They signal a new set of opportunities for future strategies of service firms (Lovelock and Yip 1996).

Service firms are characterized by particular combinations of resources and capabilities different from those of manufacturing firms, the most obvious being the support in service organizations of the front-line staff. The creation and sharing of knowledge-based resources is particularly helpful for service industries (Teece 1998), since most services are heavily dependent on knowledge-based resources in both the design and delivery of the service, and especially on the tacit knowledge underpinning the routines of staff. An example of knowledge-based resources in services is given in the somewhat unexpected service context of a contract cleaning company where front-line staff knowledge and training are seen as critical to sustainable competitive advantage in a highly competitive and cost-conscious industry.

Box 16.3 Contract cleaning as knowledge management: ISS of Denmark

In an industry characterized by perceptions of low status, low-skilled workers, and high staff turnover, ISS invests heavily and continuously in training its staff and attempting to retain their loyalty. Although a commonplace in most other industries, it may appear unusual to emphasize knowledge, skills, and staff expertise in relation to office cleaners. Yet this is a service business and customer satisfaction depends ultimately on how front-line staff (in this industry that means the cleaners) carry out their jobs. Commercial cleaning is an industry with very tough competition. To be awarded and then to retain contracts requires high levels of efficiency in timeliness, use of cleaning supplies, avoiding accidents, and dealing with idiosyncratic customers. In

addition, many of these contracts, such as those in hospitals and factories, have to be carried out in conditions that are often complex and hazardous.

In the commercial cleaning business there are now several international service providers such as Rentokil (UK), ServiceMaster (USA), and ISS (Denmark). These large service multinationals often outbid local cleaning service companies, since they benefit from scale and investment in back-office systems to enable them to efficiently coordinate their purchasing, marketing, and logistics to win national and international contracts with hospitals, offices, factories, and government departments. However to retain these contracts, service delivery by staff is what counts.

ISS itself operates throughout Europe and Asia, although it had to sell its US business in 1997 because of an accounting scandal. It has a universal emphasis on training and an impressive staff retention record. ISS Denmark, for example, operates a six-month training programme for all employees covering things like safety and which chemicals to use on which stains. After a year with ISS employees may become team leaders. For this they need better overall knowledge of the business. So they are given prior training on the economics and finance of the business, so that they can understand where the profit in each contract is to come from and how to interpret each client contract. Team leaders have tight performance targets, measured on both profitability and customer retention. So they also receive training on how to deal with customers and how to coach less experienced members of their team.

ISS attempts to provide its employees with technical skills but also to motivate them as front-line staff and to keep the benefit of their expensive training inside the company. To do this the company has had to think creatively about how it organizes the work. ISS Denmark has grouped its cleaners into two- or three-person 'hit squads' for its small office division. They work together travelling from site to site. This is in many ways less efficient and more costly than sending separate individuals to separate sites, but ISS believes that this system generates both higher motivation and makes possible more contact between ISS's supervisors and the client's site managers. To increase such customer contact, which provides the opportunity for obtaining crucial customer feedback, ISS is rescheduling many of its accounts to provide overlap time between cleaning staff and office staff. As part of its focus on motivation, ISS also pays above the competitor average. So far it feels that it has not lost business as a result of its higher costs. Well-trained employees and good back-office systems have enabled it to win complex contracts, such as the hotel cleaning contract at Disneyland, Paris.

The contract cleaning industry has now emerged from a period of rapid concentration internationally. As a result, although ISS faces only two or three major competitors in its market, each is large and well resourced and they all bid for the same contracts. Profitability and productivity are major concerns, especially given ISS's higher training and wage costs. It recently sold the ISS University that it had used to coordinate its training across regions. Instead, training is being decentralized in an attempt to tailor knowledge to local conditions.

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Quinn and Paquette (1990) have argued strongly for the inverted service organization in which expert systems and interactivity are the key to making the upsidedown organization work. They argue that more automating and contracting-out of mundane and repetitive service tasks should humanize rather than dehumanize services, leaving service staff freer to serve customers. The way to achieve this

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greater automation of services is to 'micro-manage' by identifying small units of business that can be standardized and automated. This takes the concept of disaggregation of back-office activities several stages further. The structure of service organizations in the future may end up looking more like a spider's web, with each employee able eventually to tap into the firm's collective knowledge via its computer networks. An additional benefit of that may be that if staff leave, at least part of their knowledge could still remain available to the firm.

Pine and Gilmore (1998) go further. They describe not services but experiences as the next stage of service industry development and the next great transition that of shifting from selling services to selling experiences. They see experiences as different from services as services are from products. Consumers desire experiences and gradually firms will begin to design and sell them. As more services follow products eventually into becoming commodities (as telephone calls already have), then experiences may offer the next route to added value.

16.10 Conclusions

Despite considerable variance across sectors, service industries had been neither so technologically advanced nor so capital-intensive as

manufacturing. That has now changed with many services being highly information-intensive and capital-intensive. They had exhibited minimum efficient scale at low levels, with significant diseconomies of scale reached at modest levels of growth. The special characteristics of service businesses (in particular, the service encounter) have also long dominated thinking about the design and delivery of services. Received wisdom has been that services are 'different' and therefore the growth paths of service firms had a different trajectory from manufacturing firms. Greater similarity between manufacturing and service firms now indicates that the special characteristics of services have diminished in significance at the industry level, although they remain critical at the level of the firm.

The sources of competitive advantage in service industries have changed. A combination of structural, market, regulatory, and technological changes has provided a shift in the balance of activities within service firms. Greater emphasis on 'back-office' activities maybe lowering the levels of perceived risk, and enhancing the potential benefits, attached to international expansion of service firms. Following Ghoshal's three key sources of benefits to firms from international expansion, the potential benefits do now exist from comparative advantage, economies of scale, and economies of scope for international service firms. Of particular interest

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are variables that drive cost for a service firm, since international expansion of a service firm should involve some efficiency advantages to justify the costs of integration of cross-border operations, compared to provision of a similar service by a domestic firm. Scale and scope are having considerable impact on the creation of international oligopolies in services. This implies that the current dynamic of growth of service firms is increasingly beginning to parallel that in manufacturing.

Service industries are concerned with providing customers with an 'experience'. This underpins an essential difference in the significance of internationalization of services as opposed to manufacturing. For manufacturing industries the sources of global advantage come mainly from comparative advantage, e.g. in factor costs; economies of scale in production, marketing, distribution, logistics, and purchasing; mobility of production; or any combination thereof. This means that manufacturing is concerned with the most effective ways of producing and then moving the product to the market. In service industries, internationalization means that a mobile customer base (e.g. the tourist, the shopper, the business traveller) expects to experience a consistent service wherever they go. International hotel chains (Sheraton, Inter-continental) are expected to make the traveller's experience of Tokyo, Cape Town, Manila, or Sydney, as similar as possible. The expectation of the customer is for consistency of service levels in any location around the world. Service delivery is therefore about controlling the quality of the offering at the point of sale to the customer, wherever in the world the customer is experiencing the service.

In this discussion of strategies for service firms, much emphasis has been placed on the availability of scale and scope economies, especially as affecting international strategies for service firms. Indeed, I have argued that if such benefits are not available for service firms, it would usually mean that local service firms should have lower costs and provide higher service levels than service MNCs. I have also argued that the potential availability of a range of economies of scale and/or economies of scope, will both reduce the risk, and enhance the advantages of internationalization for service firms. Sources of such scale and scope economies have been suggested. Their potential availability across different types of service businesses has been discussed. Changed technological, market, and regulatory conditions have created more favourable conditions for international expansion of many services, while the special characteristics of services have been diluted in significance. Many services contain tangible components that are capital-intensive, amenable to separation from the point of service delivery, and responsive to standardization. In addition, core knowledge and information-based assets of service firms are codifiable and transferable across national boundaries, as is the consumer franchise from strongly branded services.

As a result of this combination of factors, service industry dynamics are beginning to parallel those of manufacturing. Manufacturing businesses and service businesses appear to be following similar development paths, creating similar types of asset structures, and competing in similar ways. With the emphasis on customer

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service in manufacturing, and the emphasis on efficient deployment of back-office assets in services, each is trying to capture the advantages the other has traditionally utilized.

However at the level of the firm it is important to be cautious and to be very careful how strategic management concepts are interpreted and applied to services. Services strategies are all about implementation. That is where the distinctive characteristics of services really do kick in with a vengeance. That is why, although it may be desirable to view any organization as an upside-down organization, for service organizations it is crucial. A clear grasp of the nature of services shows why inverted organization structures to implement service strategies are mandatory. Successful service strategies are essentially a result of how people carry out their responsibilities at work, irrespective of whether they have high or low levels of information technology or other supporting infrastructure. In a service business, bridging this interface between strategy and operations is critical because *how* this interface is bridged defines the nature of the service experience for the customer.

References

- Bowen, D. E., Chase, R. B., and Cummings, T. G. (1990). *Service Management Effectiveness*. San Francisco: Jossey-Bass.
- Carlzon, J. (1987). *Moments of Truth*. Cambridge, Mass.: Ballinger.
- Carman, J. M., and Langeard, E. (1980). 'Growth Strategies for Service Firms' *Strategic Management Journal* 1: 7–22. [Link](#)
- Dicken, P. (1992). *Global Shift* (2nd edn.). London: Paul Chapman Publishing.
- Dunning, J. H. (1989). 'Multinational Enterprises and the Growth of Services: Some Conceptual and Theoretical Issues'. *Service Industries Journal*, 9/1: 5–39. [Link](#)
- Enderwick, P. (1989). *Multinational Service Firms*. London: Routledge.
- Gabbott, M., and Hogg, G. (1998). *Consumers and Services*. Chichester: Wiley.
- Ghoshal, S. (1987). 'Global Strategy: An Organising Framework'. *Strategic Management Journal*, 8/5: 425–40.
- Gummesson, E. (1987). 'The New Marketing: Developing Long-Term Interactive Relationships'. *Long Range Planning*, 20/4: 10–20. [Link](#)
- Heskett, J. L. (1986). *Managing in the Service Economy*. Boston: Harvard Business School Press.
- IMF (International Monetary Fund) (1993). *Balance of Payments Manual* (5th edn.).
- Katrishen, F. A., and Scordis, N. A. (1998). 'Economies of Scale in Services: A Study of Multinational Insurers' *Journal of International Business Studies* 29/2: 305–23. [Link](#)
- Levitt, T. (1976). 'The Industrialization of Service'. *Harvard Business Review*, Sept./Oct: 63–74.
- (1986). *The Marketing Imagination*. New York: Free Press.
- Lovelock, C. H., and Yip, G. S. (1996). 'Developing Global Strategies for Service Businesses'. *California Management Review*, 38/2: 64–86.
-
- Lowendahl, B. R. (1997). *Strategic Management of Professional Service Firms* (2nd edn.). Copenhagen: Copenhagen Business School Press.
- Nayyar, P. R. (1990). 'Information Asymmetries: A Source of Competitive Advantage for Diversified Service Firms' *Strategic Management Journal* 11: 513–19. [Link](#)
- Normann, R. (1991). *Service Management: Strategy and Leadership in Service Businesses* (2nd edn.), Chichester: Wiley.
- and Ramirez, R. (1994). *Designing Interactive Strategy: From Value Chain to Value Constellation*. Chichester: Wiley.
- Pine, B. J., and Gilmore, J. H. (1998). 'Welcome to the Experience Economy'. *Harvard Business Review*, July/Aug.: 97–105.
- Porter, M. (1986). *Competition in Global Industries*. Boston: Harvard Business School Press.
- Quinn, J. B., and Paquette, P. C. (1990). 'Technology in Services: Creating Organisational Revolutions'. *Sloan Management Review*, Winter: 67–78.
- Riddle, D. I. (1986). *Service-Led Growth: The Role of the Service Sector in World Development*. New York: Praeger.
- Sasser, W. E., Wycoff, D. D., and Olsen, M. (1978). *The Management of Service Operations*. London: Allyn & Bacon.
- Segal-Horn, S. (1993). 'The Internationalisation of Service Firms' *Advances in Strategic Management* 9: 31–61.
- (2000). 'The Search for Core Competencies in a Service Multinational: A Case Study of the French Hotel Novotel', in Y. Aharoni and L. Nachum (eds.), *Globalisation of Services: Some Implications for Theory and Practice*. London: Routledge.
- Tece, D. (1980). 'Economies of Scope and the Scope of the Enterprise'. *Journal of Economic Behaviour and Organisation*, 1/3: 223–47.



——(1998). 'Capturing Value from Knowledge Assets: The New Economy, Markets for Know-how, and Intangible Assets'. *California Management Review*, 40/3 (Spring): 55–79.

Vandermerwe, S. (1993). *From Tin Soldiers to Russian Dolls: Creating Added Value through Services*. Oxford:Butterworth-Heinemann.

Yip, G. S. (1992). *Total Global Strategy*, Englewood Cliffs, NJ:Prentice-Hall Inc.

Zeithaml, V. A., and Bitner, M. J. (1996). *Services Marketing*. New York:McGraw-Hill International.

——Parasuraman, A., and Berry, L. L. (1985). 'Problems and Strategies in Services Marketing' *Journal of Marketing* 49/Spring: 33–46.



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22 International Strategy

David Faulkner

22.1 Introduction

THE objectives of this chapter are to explain the rationale for the existence of the multinational corporation, to describe the stages of internationalization, to review the four distinct forms of multinational corporate strategy and structure, and to consider their dynamic nature and relate them to typical contingent circumstances.

The multinational corporation (MNC) has dominated the international business environment at least since World War II. One of the most popular academic rationales for the MNC is that of Dunning's (1974) eclectic paradigm (advantages of Ownership, Location, and Internalization). Rugman, Lecraw, and Booth (1985) provide a different characterization of the same OLI elements used by Dunning by combining the three OLI elements into two factors: firm-specific advantages (FSAs—which include 'O' and 'I') and country-specific advantages (CSAs—which incorporates 'L'). Rugman, Lecraw, and Booth see international strategy formation by MNCs as an outcome of the balance of benefits to the MNC of sets of FSAs and CSAs within each firm. Both Dunning's and Rugman's approaches to explaining the strategic decision-making of international firms assumes that decision-making is based on rationality, and hence on the attempt to minimize transaction costs and factor costs, although in the real world these are not always justifiable assumptions.

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22.2 The Rationale for the MNC

Porter (1986) identifies the two key tasks of the would-be international firm as: first, to achieve the optimal form of *configuration* (where to locate value chain activities, which would include CSA issues); and second, type and degree of *coordination* (how to set up the appropriate organization structure and systems to support the actual choice of configuration of the MNC, which would incorporate FSA issues).

In Figure 22.1 *dispersed configuration* means having value chain activities in many countries; while *concentrated configuration* means having value chain activities mostly in the home country. Obviously an array of possibilities exists along that continuum. On the other axis, we use *high coordination* to mean mainly centralized decision-making and *low coordination* to mean mainly decentralized decision-making. Thus, in Figure 22.1 Gillette has a globally dispersed configuration with high centralization of decision-making at MNC headquarters. Nestlé is shown with a dispersed configuration and low coordination; a way of capturing in the matrix Nestlé's multi-domestic MNC structure. We have shown Matsushita of Japan twice: first (top right) as it was structured in the 1970s, with a concentrated configuration and high coordination, which means that it was very centralized in its decision-making and resource-allocation processes at that time; and second (bottom right) as it was by the late 1980s/early 1990s, with a more dispersed configuration and more decentralization of decision-making.

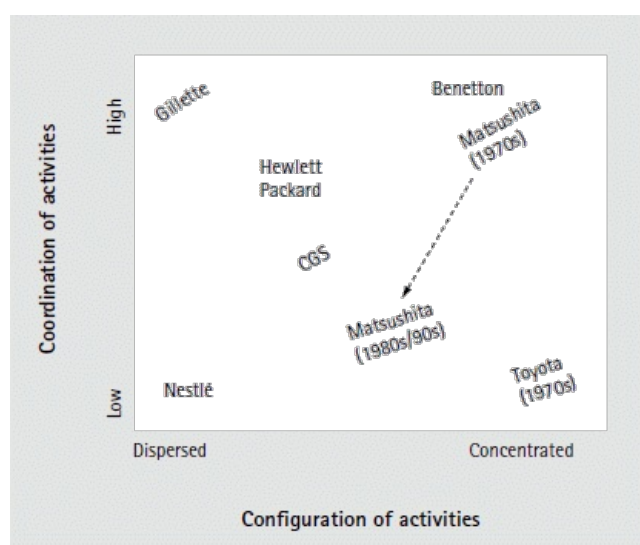


Fig. 22.1 Configuration/coordination matrix

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It would probably be more accurate in discussing the concept of MNC *co-ordination* to move away from simple alternatives such as centralization or decentralization, since such dichotomies do not capture well enough the fluid but clear objective of coordination—to get dispersed activities such as disaggregated R&D departments, production plants, and marketing teams, to truly work together (Porter 1986; Birkinshaw, Morrison, and Hulland 1995) The configuration and coordination of the activities of a multinational corporation on a global scale certainly provide a more daunting and more complex task than is involved in carrying out such activities on a purely national scale. However, as is implicit in the concept of the strategic flexibility of the MNC (Kogut 1985; Buckley and Casson 1998a), MNCs have more choices and options with regard to configuration than are available to a national firm. International strategy choices by an MNC are complex and involve the search for competitive advantage from global configuration/coordination choices throughout the entire value chain of the firm.

This chapter attempts to provide some answers to the question of how MNCs configure and coordinate their international strategies, by examining various approaches to internationalization as a strategy process (Melin 1992; Buckley and Casson 1998b). These will include stages models of internationalization, studies of the link between strategy and structure in MNCs, and more recent organizational models of MNCs. Finally a model will be introduced to summarize and discuss the four basic MNC forms described.

22.3 The Stages of Internationalization

Vernon's (1966) product life cycle model of the internationalization of a firm suggested that the process of internationalization was likely to take place in stages. First of all, a product is developed and sold domestically. Then it is exported and as demand for the MNCs products grow larger, exporting will be replaced by foreign direct investment (FDI). That will lead to it being produced in the countries in which demand for it has proved large and where factor costs and availability are most advantageous. This stage is thus the growth stage of the life cycle. In the maturity stage production moves to lower wage cost developing economies, and the final stage is decline where the product is imported into the country from which it originally emerged. This is a very stylized model, which assumes that the firm with the new product is starting out from scratch with no existing international

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organization. Its basic contribution to theory is to demonstrate how internationalization can cause production to gradually move from the home country.

A somewhat similar stage model was developed in Uppsala by Johanson and Vahlne (1977) They envisaged a firm gradually internationalizing through increased commitment to and knowledge of foreign markets. The firm is therefore most likely to enter markets with successively greater psychic distance (Perlmutter 1969) from that of the home market. Thus, at the outset it sells to countries culturally similar to itself. The model depends on the notion that uncertainty, and hence risk, increases with increasing psychic distance and unfamiliarity.

The problem with this model is that there are many examples of internationalizing companies who have merely gone for the large rather than the familiar markets, and many markets at the same time, e.g. Sony, McDonald's, Levis. The contrast is between the so-called 'waterfall' model of global expansion (one country at a time) and the contrasting 'sprinkler' model (many countries at a time). In current markets with ever-shortening product life cycles, and the strategic importance of 'time-to-market', there is often insufficient time to adopt the waterfall approach. At all events both of the popular stage models are highly sequential in the stages they describe and are both very deterministic.

22.4 Strategy and Structure in MNCs

The first major theory linking strategy and structure in MNCs is identified with Alfred Chandler. This 'structure follows strategy' school first emerged from Chandler's seminal book *Strategy and Structure* (1962) in which he described how a number of major US companies adopted the 'M-form' (multi-divisional) organization in order to better cope with the need to coordinate activities around the globe. Stopford and Wells (1972), following in Chandler's path, developed a simple descriptive model to illustrate the typical stages of development for companies progressively moving towards an international organization structure. They saw this as a process driven by two dimensions: the number of products sold internationally, i.e. foreign product diversity; and the importance of international sales to the company, i.e. foreign sales as a percentage of total sales.

Stopford and Wells (1972) suggested that international divisions were set up at an early stage of internationalization, when the figures for both product diversity and percentage of foreign sales were both low. Then, those companies which found that international expansion led to substantial foreign product diversity tended to adopt a worldwide product division structure (pathway (a) on Fig.22.2). Or if companies

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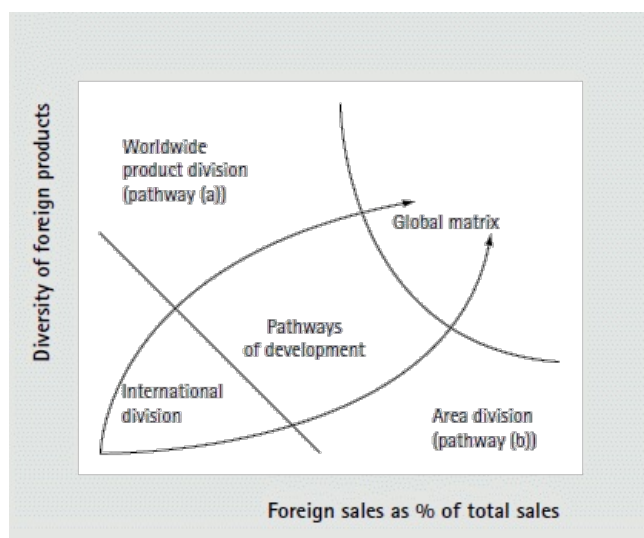


Fig. 22.2 The Stopford and Wells (1972) matrix

expanded overseas without increasing product diversity, they tended to adopt a geographical area structure (pathway (b) on Fig. 22.2). Finally when both foreign sales and the diversity of products were high, a global matrix emerged. Thus, the grid structure of the MNC with a geographic axis and a product group axis emerged. Bjorkman (1989), however, was unable to correlate structures with performance. He therefore concluded that the adoption of new structures was more a matter of fashion than anything else, and resulted from firms copying current organizational trends at any specific time.

22.5 Recent Organizational Models

Prahalad and Doz (1987) and Bartlett and Ghoshal (1989) are of the newer 'process' school of MNC management. They emphasize control through socialization and the creation of a verbal information network to develop a corporate culture that transcends national boundaries. This school emphasizes *global integration* combined with *local responsiveness*. Both sets of authors have used variations of a *global integration / local responsiveness* framework in their work. Bartlett (1986) described these two major forces and their organizational effect on shaping the international strategies of MNCs as follows:

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Some [forces], such as the increasing manufacturing economies associated with global or regional scale demand, or the need to spread escalating technological development costs over shorter product life cycles, tend to create the need for greater global coordination of effort and integration of operations. Other forces, such as national differences in consumer taste or market structure, or host government protectionism or regulation, increase the need for more local differentiation and responsiveness. It is the balance and interrelationship of these two forces that is influential in shaping the organizational task of the MNC. (1986:369)

All international strategy decisions are made with this trade-off in mind. This approach is not at all deterministic or prescriptive of organization structure; it is contingent on circumstances. The emphasis is on the optimal functioning of MNCs in the markets in which they operate. Figure 22.3 illustrates how the balance of these forces for global integration and national responsiveness can vary from one industry to another.

Figure 22.3 shows how these different industry forces influence the strategic task and hence the appropriate response of the firm. For example, there is little incentive

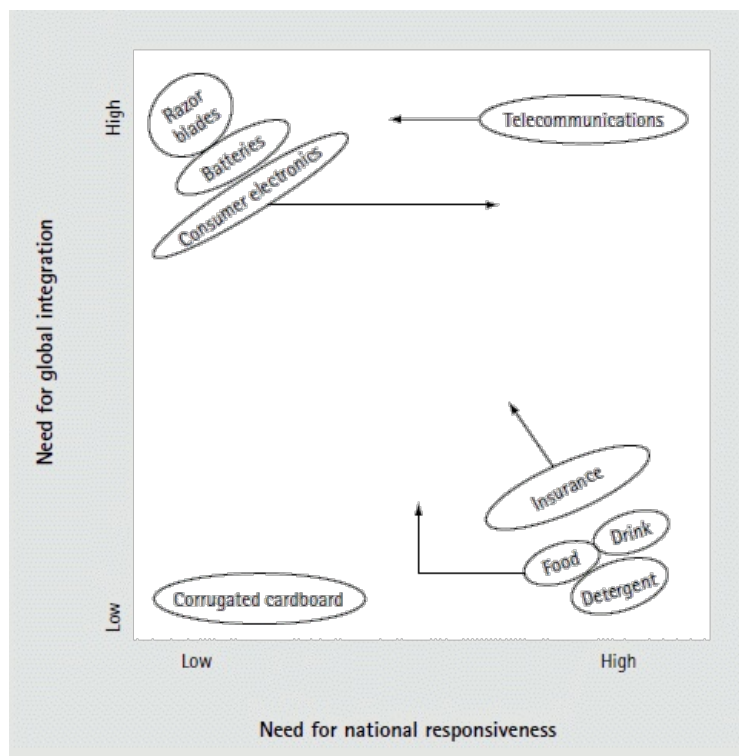


Fig. 22.3 An 'integration-responsiveness' grid

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to build a global scale plant for the manufacture of corrugated cardboard (bottom left in grid) and little basis for differentiating this basic commodity product by national market. By contrast, consumer electronics (top left in grid—together with batteries and razor blades) offers high R&D and manufacturing scale economies, together with standard design opportunities and little need for differentiation by national market. Food products, soaps, detergents, together with some services such as insurance (bottom right in grid), all needed to be adapted to meet local consumer preferences and differences in distribution channels per market, as well as various regulatory requirements. Telecommunications (top right in grid) requires high capital investment and massive R&D costs, but still must meet the variation in technical standards and service levels required by the different national and regional markets. In addition, note the direction of the arrows attached to many of these industry positions. They indicate directions of movement over time for the different industries illustrated, as the forces shaping the industry dynamics shift and change. Each movement around the grid denotes the need for a review of the existing configuration of the MNC, and a corresponding change in its levels of global or regional coordination and integration.

Each of the four extreme corners of Figure 22.3 represents one of the four approaches to being international. Working clockwise around the integration-responsiveness grid from bottom left, these are: international exporter, global, transnational, and multi-domestic.

22.6 International Strategies

All international competitors have to be perceived to be at least as good as a local firm providing a product or a service in the local market or they will not be able to sell their products abroad. Poorly organized international competitors may bear higher costs than local competitors, given their more complex structures and systems. Initially also local companies are likely to be equipped with better knowledge of the local market. Therefore one of the key issues in operating globally is how to organize one's enterprise so that it is possible to compete with local companies in terms of both demand and supply.

In some ways the development of an international competitive strategy is no different from the development of a domestic market competitive strategy. Competitive strategy is about being able to achieve the highest level of customer satisfaction or 'perceived use value' (PUV) at the lowest cost in relation to one's competitors in each product/market, whether the market is national or international. 'PUV' is a

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term used to identify the dimensions and attributes that customers value in a product or a service, and which influence their customer buying behaviour (Bowman and Faulkner 1997) Similarly, international corporate strategy is about selecting, resourcing, and controlling the businesses within the corporation. Corporate strategy is about the mix of businesses within the corporation according to market attractiveness and the risk profile of the firm; the overarching organizational structures, systems, and processes to support those businesses; and the investment in necessary firmwide resources and capabilities either by investing internally or acquired by merger and acquisition activity or through participating in alliances with partner organizations. This is so whether the firm is competing nationally or internationally. However, in international strategy there are both additional problems, such as the management of cultural diversity across the organization, and greater opportunities and options, from either leverage or arbitrage as identified by Kogut (1985).

How then is a market defined as national or global? That decision is made by the preferences of customers and the cost structures of the operating firms. If Sony is able to bring its electronic products to the United Kingdom at competitive prices, and UK customers find them acceptable as alternative sources of PUV to those of local suppliers, then the consumer electronic market has become international. This will not of course apply to all products. The market for corrugated cardboard is said to have a radius of about 50 miles. It is a low value commodity in which little differentiation is possible, and once 50 miles have been travelled the local producer is able to realize lower costs than the travelling producer. The same applies to building aggregates. This explains the position of corrugated cardboard on Figure 22.3.

There is then a *strategic market* (Barwise and Robertson 1992) which is defined by the relative homogeneity of consumer tastes, and the possible cost structure of the company that enables it to be a credible competitor over varying distances. Since Levitt's (1983) opening remarks in the debate about global consumers, followed by Ohmae (1985, 1989) and others more recently (Makhija, Kim, and Williamson 1997), it is accepted that with the passing of each year more and more products and services fall into the category of global competition, as similar products and services are sold around the world, as technologies too become global, and as transportation costs become a smaller and smaller percentage of delivered costs.

Strategic issues affecting the four approaches to international strategy fall into three categories:

- (1) those that determine which segment to select, and whether or not they involve global competition;
- (2) those that affect the company's ability to resource and deliver the product at a competitive price anywhere in the world, i.e. political factors and cost structures (configuration issues);

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- (3) those that are concerned with how a company should organize itself to control its international activities (coordination issues). We will deal with each of these in turn.

22.6.1 Selecting Where to Compete

A useful framework to help managers decide how to approach the selection, and eventually, the configuration task in their international strategy is that provided by Ghoshal (1987). He identifies three strategic objectives of any global strategy and three key bases of potential competitive advantage derivable from a global strategy. The resulting framework is given in Table 22.1.

The three basic strategic objectives of a global strategy in Table 22.1 are seen as:

1. *Efficiency*, i.e. carrying out all value chain activities to a required quality at lowest cost. This is the most frequently emphasized objective in the literature. Indeed, it is often the only objective mentioned. Each of the OLI (or FSA/CSA) factors mentioned above need to be considered when reaching decisions about the optimal efficiency of any specific activity.
2. *Risk management*, i.e. managing and balancing the risks inherent in operating in a number of diverse countries, e.g. exchange rate risks, political risks, or raw material sourcing risks. This is very strongly concerned with L (location) or CSA factors.

Table 22.1 Global strategy: an organizing framework

Strategic objectives	Country differences	Sources of competitive advantage	
Efficiency in current operations	Factor cost differences, e.g. wages and cost of capital	Scale economies in each value chain activity	Scope economies
Risk management	Assessment of risk by country	Balancing scale with strategic and operational flexibility	Sharing of resources and capabilities across products, markets, and business
Innovation and learning	Learning from cultural variety in process and practice	Opportunities for technology-based cost reduction	Portfolio diversification
			Shared organizational learning

Source: Adapted from Ghoshal (1987).

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3. *Innovation learning and adaptation*, i.e. the opportunity to learn from the different societies, cultures, and markets in which one operates.

Ghoshal's organizing framework takes the three types of strategic objective identified above and relates them to what are noted as the three key sources of competitive advantage namely:

1. *National differences*, i.e. competitive advantage can come from exploiting differences in input and output markets in different countries, e.g. low-wage countries are perhaps the most commonly cited examples of such factors, but every other type of national difference should also be considered as part of the strategic flexibility of the MNC. That should include, for example, relative cost of capital, tax regimes, and so on.
2. *Scale economies* provide a source of competitive advantage if one firm is able to adopt a configuration of its activities such that each activity is able to operate at the optimal economic scale for minimum unit costs, especially if competitors fail to do this. Of course, achieving optimal scale economies globally may sometimes lead to dangerous inflexibility. This creates higher rather than lower risk if fluctuating exchange rates alter or destroy these potential economies after plant has been brought on-line to take advantage of them.
3. *Scope economies* are the third source of global competitive advantage. Simple illustrations of economies of scope are found in the use of global brand names like Coca-Cola or McDonald's, but can be found in any area of the firm's activities where resources used to produce or market one product in one country can be reused, virtually without cost, to do the same for other products and in other countries. Technology, IT, any learning or skills are further examples of areas of potential scope economies.

This organizing framework enables the global decision-taker to identify the potential sources of global competitive advantage available to the firm, and to cross reference them to the three basic types of strategic objective, achieving efficiency, managing risk, and enabling learning, with the ultimate objective of deciding where, why, and how to compete internationally.

22.6.2 Resourcing Global Production

Further decisions regarding the configuration of activities on a global scale are concerned with the issue of what parts of the value chain for a product or service should be produced within the company, and what should be outsourced. Configuration also means deciding where such production or other activities should take place—in the home country, the Far East, or elsewhere.

The configuration profile is influenced by a number of barriers that have historically ensured that most markets remained local. However, many of these

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are becoming progressively less important. Global products had traditionally been considered by many theorists to have limited potential in many industries, since people in different parts of the world living in very diverse cultures were assumed to have different tastes and values, and therefore to require different products and services to satisfy them. To some extent that is still true; more soft drinks are sold in the United States per head than any other country in the world; more tea per head in the United Kingdom than elsewhere; the Far East consumes more rice than the West; and the West more potatoes than the Far East. Yet such variations are far less common in the manufactured products area. Levitt (1983) comments that 'the same single standardized products—autos, steel, chemicals, petroleum, cement, agricultural commodities and equipment, industrial and commercial construction, banking, insurance, computers, semiconductors, transport, electronic instruments, pharmaceuticals, and telecommunications [are sold] largely in the same single ways everywhere.' While overgeneralized to make his point in a dramatic way, the truth of his comments becomes more accurate with each passing year in an increasingly wide range of industries.

If the limitations on demand for would-be global products are less, we should also consider barriers to the supply of global products and services. The traditional supply-side barriers that make cross-border strategies more difficult still exist in many parts of the world, e.g. tariffs, government regulations, different languages and cultures, and exchange rates. However, some of the drivers behind the perceived regionalization and globalization of markets during the 1980s and 1990s have brought about the marginalization of, or complete elimination of, many of the traditional barriers to trade.

The spread of 'Western' culture through films, videos, travel, and satellite television, and the greater interest in Eastern food, clothing styles, art and music, have done much to homogenize tastes. Many of the effects of the formation of larger trading blocs on the supply side has been significant. International trade agreements such as those in the EU, ASEAN, GATT, Mercosur, and NAFTA areas have led to the reduction of the level of tariffs, and where possible eliminated quotas and domestic subsidies (outside agriculture). Fewer countries now require local majority shareholdings in joint ventures set up with foreign companies, and where they do, the foreign companies have learnt to live with this and operate in a multicultural way. Language barriers remain to some degree, although for good or ill, English is becoming the language of MNCs and of international business, and any company wishing to operate globally has to ensure that its senior executives are proficient in it.

The remaining traditional barriers are transport costs and exchange rates. Transport costs are reducing, but they remain an inhibitor to competitive global trade, the importance of which varies with the value and volume of the article traded. Transport costs are virtually irrelevant to international trade in diamonds, but of considerable importance in limiting such trade as commodity foodstuffs. Exchange

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rates, however, will remain of considerable importance, whilst every nation maintains a unique currency and retains the right to devalue or revalue it against other currencies, when the government or the market deems this advisable. To be caught with cash or debtors in a newly devalued or depreciated currency can wipe out any profit at a stroke. Against this background one can appreciate the move to a Europe-wide currency (the 'euro') in the EU, which enabled European trading nations to get rid of internal exchange rate transaction costs across a market size similar to that of the United States or Japan, neither of which have carried these additional costs of trade in their internal market.

Since these barriers to global trade are now so reduced in strength, corporate strategy decisions concerning cross-border trade must be taken as it would be for domestic products, but within the mindset of international strategy. By this we mean fully utilizing the insights of Kogut's (1985) arbitrage and leverage opportunities and competitive and comparative advantage constraints, Dunning's (1998) OLI factors, Rugman, Lecraw, and Booth's (1985) FSA/CSA balance, Porter's (1986) configuration/coordination framework, Bartlett's (1986) integration-responsiveness grid, and so on, to inform the approach to each industry and market.

One approach to general corporate strategy decision-making uses a 'customer matrix' and a 'producer matrix' (Bowman and Faulkner 1997), each of which should be constructed for the strategic market of each product/market. The 'customer matrix' is a tool developed by Bowman and Faulkner (1997) with two axes on the matrix (PUV and price) to assess the market's view of the relative strength of the company's products compared to those of its competitors. Similarly, the 'producer matrix' has axes of effectiveness (arising from competencies) and unit costs. It assesses the 'real' underlying strength of the company in relation to its competitors in terms of its competencies and factor costs. These analyses will show for which markets the company has attractive products. The market size should also be assessed to ensure it is sufficiently interesting for the firm. Since the dimensions of PUV are likely to be different by country, or at least to have different weightings, a separate set of matrices will need to be developed for each country. Perceived price is also likely to be different for each country for reasons of exchange rate, local taxation, and cost of living, and the impact of transport and perhaps other costs will need to be factored into the producer matrix.

22.6.3 Controlling the International Corporation

It is not just the configuration of the value chain that is the key to international competitiveness, it is also the way in which it is coordinated and controlled. In fact since outsourcing, virtual corporations, and networks are in the ascendant as

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modern organizational forms, the MNC's international coordination and control capabilities may well be the key to its international effectiveness.

Ghoshal and Nohria (1993) used the integration-responsiveness grid to identify four appropriate organizational forms for coping with the four basic types of MNC strategies: *global*, *international exporter*, *multi-domestic*, —and *transnational*. Their research placed the following industries in the *global* box: construction and mining, nonferrous metals, industrial chemicals, scientific measuring instruments, and engines. Little national responsiveness was seen as necessary in these industries. Industries appropriate for an *international exporter* strategy low on global scale economies and national responsiveness were: metal industries, machinery, paper, textiles, and printing and publishing. Industries appropriate for a *multi-domestic* strategy high on the need for local adaptation were beverages, food, rubber, household appliances, and tobacco, and those for a *transnational* strategy high on both national adaptation and global scale were seen to include drugs and pharmaceuticals, photographic equipment, computers, and automobiles. Of course as particular industries evolve they may well move boxes. Automobiles, for example, may well be moving into the global box.

Ghoshal and Nohria highlight organizational process as being as important for strategic success as organization structure. They claim that when process environment and organizational form are correctly aligned, MNC performance is higher than when there is a 'misfit' between them. On the process side, they identify structural uniformity as best suited to global environments and organizational forms; differentiated structures to fit multi-domestic environments, integrated variety to fit with the transnational form, and ad hoc variety to fit with international environments.

22.7 The International Corporate Structure Matrix

The four possible configurations described above are illustrated in the matrix shown in Figure 22.4. This matrix follows a tradition in international business research used and developed by Bartlett, Ghoshal, Doz, Prahalad, and Stopford, amongst others. Although most authors apply varying definitions to some extent, the underlying principles remain the same. In international business there is always a tension between the production efficiency needed to make a standard product and ship it around the world with as little variation as possible at lowest cost, and the marketing need to offer a product to a local market that takes into

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account possible local tastes and culture. This tension exists of course in all business beyond the very local at all times, but it is most in evidence in international trade across borders.

The existence of this tension, and the resultant perceived trade-off between global standardization and local adaptation applies in a number of areas. It applies in varying degrees to different industries, e.g. commodities need no local adaptation, wheat is wheat, oil is oil, but a car is not yet an undifferentiated product. It applies also to individual countries. If there is a market for a product in the United States, a similar market may exist in Europe, but more adaptation may be needed for India, Africa, or the Far East. McDonald's do not sell pure beef hamburgers in India for religious and cultural reasons for example.

A similar tension exists between business functions. It is possible for a pharmaceutical company marketing worldwide to carry out all its R&D in one major research site in its home base country. This achieves the greatest economies of scale in terms of running teams of research scientists, and having the hardware resources for them to carry out their research. However, if the company is big enough, it may need more than one R&D establishment in different parts of the world. This is not for reasons of scale economies but for market intelligence-gathering and to give it the necessary flexibility when the market environment changes unexpectedly. The same company may need a small number of production units sited regionally around the world to achieve the minimum economic size for scale economies in production. However, it may well need one sales force per country to develop and use the local market knowledge needed to achieve effective global reach with its portfolio of products, and to gain national and local acceptance. These tensions exist for industries, for markets, and for functions. Relevant balances and trade-offs need to be solved differentially for each contingent set of circumstances. For a company's international strategy to be effective, it must respond to such varying contingencies.

How then should the strategic approach of a multi-product, multi-market global company be organized? There is not one response, but a number of responses to this issue and as environmental circumstances change so will the organizational pressures, and the optimal solutions. Figure 22.4 shows the four most common organizational forms in response to each set of global/local contingencies.

There is some confusion in the international business literature over the appropriate term for firms in the bottom left-hand box. Bartlett and Ghoshal (1989) describe the relevant configurations for the global and the international models in terms which fit this box. The difference is that in their view there maybe knowledge transfer from the headquarters unit to local companies in the international model, whereas their global model has a mentality that treats overseas operations as no more than delivery pipelines. What we call multi-domestic, Bartlett and Ghoshal call their multinational: a company that operates with strong overseas companies and a largely portfolio mentality.

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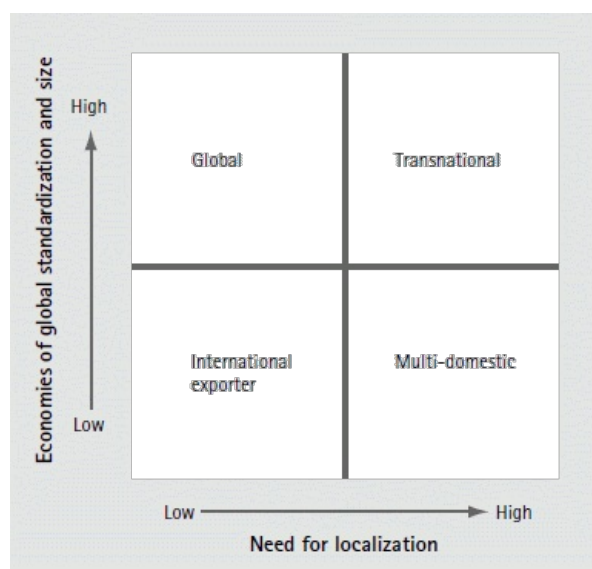


Fig. 22.4 The international corporate structure matrix

We believe that the term 'multinational' should be the umbrella term to describe all company forms that trade internationally, and have a presence in a number of countries. In terms of our matrix this includes the company forms in all boxes of the matrix other than the bottom left-hand box. Let us look at each of the four types in Figure 22.4, starting with the global type.

22.7.1 The Global Company

In the top left-hand box is the *global* company producing standardized products for sale around the world, such as Gillette razors. As a global company, Gillette may not have a major problem. Razor blades need little local adaptation, have an established technological production function, have an easily understandable marketing message, and therefore only sales needs to be handled locally. In this model, the global corporation treats overseas operations as delivery pipelines to a unified global market. Most strategic decisions are centralized at the home country base, and there is tight operational control from the centre. There is likely to be very little adaptation of products to meet local needs. Gillette, Coca-Cola, or Johnson and Johnson's Band-Aid division are all examples of this type of company.

The classical global organization model was one of the earliest international corporate forms that developed, after it became apparent that scale and scope

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economies were key to international competitiveness in many industries (Chandler 1962, 1990b). The global company built scale facilities to produce standard products, and shipped them worldwide. It is based on the centralization of assets, with overseas demand operations used to achieve global scale in home-base production.

The global corporation may have an international division in order to increase its foreign sales, but the international division is very much the poor relation of the domestic divisions, which are probably further subdivided into product group divisions. The company ships from its home base whenever possible, with very little regard for the differing tastes and preferences of the countries to which it is exporting. This form of organization was typical of the Japanese exporting companies of the 1970s, and is still common in many current US corporations; the Spalding Sport group is an example of this mode.

The predominance in the international strategy literature of a focus on this simple model of the global firm is criticized by Yetton, Davis, and Craig (1995). They target Porter's (1990) work, and the assumptions implicit in his 'diamond' framework in particular:

Porter's primary concern with the capacity of the US to compete with Japan leads to a preoccupation with the globally exporting firm, which is the principal form by which Japanese manufacturing firms have competed internationally. He focuses not on the complexity of international operations, but on the characteristics of the home base market as a platform for a successful export strategy. Consequently the global MNC is his primary interest.

22.7.2 The International Exporter

By contrast, the firm in the bottom left-hand box, the *international exporter*, may not even think of itself as an international company. It exports opportunistically. Domestic customers are its lifeblood, but it will sell abroad if approached by an international customer, and in times of recession, when overcapacity looms, it may actively solicit international sales to fill its factories. Generally, however, the percentage of its home-based production exported is low, as a percentage of total sales. For many companies this may indeed be a transitional form, as its markets internationalize.

22.7.3 The Multi-domestic Corporation

In the bottom right-hand box is the *multi-domestic* company. Its key characteristics are that of a portfolio of independent subsidiaries, one per country. Such a firm adopts country-centred strategies, and there is relatively little international

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coordination. To survive as a multi-domestic, it is important that there be unique product features required per country market and few opportunities for scale economies, since if such economies do exist in large measure the domestic subsidiary will be out-competed by the integrated global firm. In a rapidly globalizing world, traditional multi-domestic firms are becoming rarer, since producing on a global scale and getting local acceptance for a global product are becoming the more powerful competitive stance. An illustration of the old-style multi-domestic is the pre-1970s Philips. The multi-domestic form is sensitive to local needs but may not always achieve possible production

scale economies. Although the same company name maybe used in all countries in which the firm operates, this maybe all that is in common between the various country operations. The products are fashioned to meet local demand and meet local tastes.

A more sophisticated, innovative form of multi-domestic may now be observed in recent years. This *modern multi-domestic* can provide an alternative effective form to the transnational if it concentrates on achieving scale and scope economies that are available to a large corporation. This involves the corporate centre playing a very positive value-adding role to ensure that best practice in one country is successfully transferred to the other countries in which the corporation operates (Anand and Delios 1997) To compete successfully as a multinational organizational form the multi-domestic must of course excel in responding sensitively to local PUV needs. In addition, however, the multi-domestic operates best where the centre is able to establish a degree of 'friendly' competition between country units, where benchmarking is rigorously employed, and where process learning in one country is spread rapidly to the others (Yetton, Davis, and Craig 1995).

Innovation must be similarly spread around the group with vigour, and incentives established for executives to think beyond the confines of their own country business unit for the good of the corporation. Unlike the traditional multi-domestic, the successful modern multi-domestic also has an active centre which carries out its selection task carefully, only entering markets where there is a clear demand for its (standard) products. In Yetton, Davis, and Craig's (1995) words:

Successful multi-domestic corporations de-couple the local, constrained product responsiveness from the global, integrated process and production platforms and manage them separately. In addition they minimize the risk by entering only friendly rather than relatively hostile markets, and outsourcing the local responsibilities to the local management.

This may be through an acquisition by takeover or a joint venture partner.

Traditional multi-domestic forms that sacrifice production economies of scale, yet do not achieve economies of scope, or of learning, innovation, and process do now increasingly appear to be an endangered species. The Philips Group was an example of such a company prior to its repeated reorganizations from the late 1980s on. Management at the centre regarded overseas operations as a portfolio of independent businesses, and the corporate centre did not add value, as in other

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MNC organizational forms, including the modern multi-domestic, it is in a unique position to do.

22.7.4 The Transnational Organization Form

Bartlett and Ghoshal (1989) suggested the concept of the *'transnational'* enterprise, a modern form for the MNC with some of the loose network characteristics of a strategic alliance, although ownership is all within the same firm. It is located in the top right-hand box of the Figure 22.4 matrix. Although it does have some home-based exports, it also has a high percentage of foreign production. However, it is not strongly directed from the home-base country. As Bartlett and Ghoshal (1989) explain: 'Managers are being forced to shift their thinking from the traditional task of controlling a hierarchy to managing a network.' The transnational organization seeks to overcome the weaknesses of more traditional models, by moving beyond the global integration/local responsiveness trade-off implicit in the traditional models. To be globally competitive now requires both. Bartlett and Ghoshal (1989, 1990, 1993) have argued that all MNCs must now be locally responsive, with learning as a key requirement for success, whilst also achieving optimal global scale and scope efficiencies. This can only be done by adopting new attitudes to capture knowledge from all parts of the MNC organization and enable it to pass in all directions as appropriate. They also support Ohmae's (1989) view of the desirability of a 'borderless' mindset within the firm. It should be global in mindset rather than, say, a Japanese or US company with foreign subsidiaries. It may indeed have three or more head offices like NEC, as suggested by Nonaka(1989).

To succeed, the transnational form must integrate three flows: first, the company has to coordinate its internal flow of parts, components, and finished goods; second, it must manage the flow of funds, skills, and other scarce resources among units; third, it must link the flow of intelligence, ideas, and knowledge that are central to its innovation and learning capabilities. The transnational may exist more as an aspirational form than a real one as yet, although some organizations such as the Swedish/Swiss ABB or the Japanese NEC are often quoted as examples of the form, and perhaps McKinsey, the management consultancy. It is however the model which attempts to show the real complexity of the optimal coordination processes to achieve global competitive advantage for an MNC. The transnational represents a truly international enterprise, neither owned in one country, nor controlled from one unified corporate headquarters. It is therefore a genuine attempt to find a modern style of MNC capable of embracing the management of complexity, diversity, and change which is the central issue facing all MNCs.

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Box 22.1 McKinsey: a mini-case

Few companies meet all the criteria for the pure stereotypes, and there are transitional paths whereby companies restructure themselves from one form to another to meet the changing needs of their global market. The following illustration may help however to clarify the mindsets behind each of the four stylized forms. We use the international strategy consulting firm McKinsey as our illustrative case.

Let us suppose that a financial services company in the City of London approaches the McKinsey London office with a 'request for proposal' mandate for a reorganization study. If this were to have happened in the early 1960s, it may have reached the firm when it was basically an 'international' company (Figure 22.4—bottom left-hand box) The request would have been transmitted to the New York head office. If the proposal were successful, the project would then have been staffed from New York and led by a New York consultant. US analytical models would have been used, largely unadjusted for local conditions, and London people would have been used to provide the necessary local intelligence.

If McKinsey were a 'global' firm (Figure 22.4—top right-hand box), the UK office manager would negotiate the job and global models would be used, i.e. not purely US ones but certainly standardized ones. A New York engagement manager would probably come over with his team to run the study. UK consultants would be invited to New York for training and socialization in the ways and products of the firm. This was largely the situation when the author was a member of the firm in the early 1970s.

If the firm were a largely multi-domestic company (Figure 22.4—bottom right-hand box), the McKinsey name would be used to get the study, but it would then be staffed and run from London, developing a specifically British solution of a bespoke nature without necessarily any contact with the United States. The performance of the London office would be judged by its sales and profits record. Firm-wide training programmes would not be held.

Currently, by the late 1990s however, McKinsey fits fairly closely with the criteria for a transnational firm (Figure 22.4—top right-hand box). In this case there is complex multi-path information flow globally. Projects are staffed from wherever the expertise exists worldwide within the firm. Centres of excellence in particular specialist areas have developed around the world, led by expert individuals and teams. Technological and marketing centres of gravity move, often as a result of forces exogenous to the corporation, in search of any better fit (even if only short term) with particular markets.

In our imaginary illustration the City assignment would be negotiated from London with an international expert on hand. It would then be internationally staffed with the 'best' resources available who would be personally 'bonded' by their identification with the firm culture as developed in particular through international training meetings and work on international project teams. The recommendations would be sensitively tailored to the specific situation but based on firmwide expertise and experience.

Formal organization charts are only one aspect of what binds the transnational organization together. It is held together more strongly by managerial decision-making processes, which depend on information flows. Bartlett and Ghoshal

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believe it is not a new organizational form as such that will be needed to meet future global competition, but instead, a new philosophy towards achieving global competitive advantage by transforming existing thinking about local differentiation and global learning in the global enterprise. Clearly, the transnational is a new and more sophisticated concept than earlier organizational forms for the international enterprise. With its emphasis on a network philosophy and the absence of domination by a home-country-based head office, the philosophy can embrace equally well the enterprise based on a network of alliances as it can the integrated corporation. It can be seen, for example, in the approach taken by Fujitsu of Japan to the development of the global Fujitsu 'family' of companies.

Interestingly a similar philosophy is emerging amongst strategic theorists in Japan. Nonaka (1989) talks of the need to manage globalization as a self-renewing process in which information is the key to success. 'Globalization comes about through the interaction of articulated globalized knowledge and tacit localized knowledge, partly through the hybridization of personnel and consequent internalization of learning' (Nonaka 1989).

Nonaka calls this 'compressive management', an interesting echo of Ansoff's (1990) 'accordion' management, similarly devised to deal with the uncertainties of the modern turbulent environment. This process can also lead quite acceptably to a hybridization of the company's headquarters, with perhaps one headquarters in Japan, another in the United States, and maybe a third in Europe. As Contractor and Lorange (1988) have pointed out: 'One model of the MNC sees it as a closed internalized administrative system that straddles national boundaries. An alternative paradigm is to view the international firm as a member of various open and shifting coalitions, each with a specific strategic purpose.'

There is considerable congruity between the philosophical standpoints of Bartlett and Ghoshal, of Contractor and Lorange, and of Nonaka

in their rejection for the future of the rigid hierarchy of the traditional MNC, strongly controlled from its home base, even when allowing for local product variation. A world of sometimes shifting but continually renewing informal networks, cross-border partnerships and teams, and strategic alliances, fits well within this philosophy.

22.8 Transitional Pathways of Development

The development from one international organizational form to another is not merely dependent on the industrial environment, it is also dependent upon

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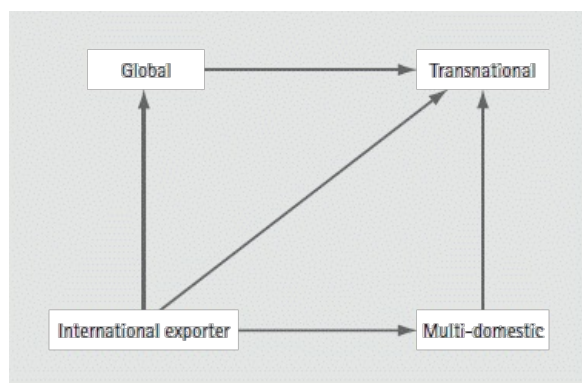


Fig. 22.5 Common organizational forms

how the corporation is currently organized; most forms can be transitional. The arrows on the matrix in Figure 22.5 illustrate the most common directions of transition.

The transition from international exporter to global, and then on to transnational, is perfectly possible as the need for local adjustments becomes apparent as a key requirement for international success. Similarly, a multi-domestic can become a transnational as the country units develop a recognition of, and uses for, each other's skills and abilities, and as shifts in various markets create a need for greater scale economies in certain areas (Malnight 1996).

Transition from a global to a transnational form is also feasible. This shift is about moving from simple global to complex global responses to greater complexity across markets, and less tolerance for simple standardized global products and services. It is also a more efficient use of scarce resources if the organization has the internal capabilities to manage this complex process effectively.

Some transitions would be more improbable. A multi-domestic would find transmutation into a global company or an international one with the required standardization very traumatic, and the corporation might find extreme difficulty in surviving the trauma. Should the transnational form be found to be strategically inappropriate it would also be very difficult to move from a transnational mindset into any of the more centralized hierarchical forms, which are structured to provide lower levels of personal autonomy. However, all four forms need not be transitional. In a more stable environment, they may each represent the optimal organizational form, at least for a period of time.

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22.9 Conclusions

It is suggested in this chapter that a firm will adopt an international strategy if it believes that it can achieve a competitive position with any of its businesses in any of the countries it decides to target. Also it will do so if an international strategy will provide it with better ways of achieving efficiency, managing risks, or enabling innovation and learning within the firm. Ghoshal's (1987) organizing framework is helpful in deciding what potential sources of advantage are available for different international strategy configurations, where to compete and where to locate different value chain activities.

Although in all corporate strategy decisions the firm will need to carry out the tasks of selecting, resourcing, and controlling, in carrying out those tasks for international corporate strategy, a greater number of factors would need to be considered, related to both patterns of demand and sources of supply. In relation to basic costs or potential costs, it will need to carefully consider transport (including insurance) costs, and the costs of hedging against the movement of exchange rates. In terms of its overall strength compared with local companies and other international companies operating in the target countries, it will need to evaluate the strength of the various components of its

national diamond (Porter 1990) as a source of potential advantage or disadvantage.

The possible relationships between the configuration of the activities of an MNC and how it manages their coordination are critical to its success. In order to consider how to configure and coordinate its activities internationally, Dunning's OLI framework will assist in determining what activities should be carried out at home, and what in other countries. Finally, in coordinating and controlling activities it will need to consider the steps necessary to become an organization structured to succeed in a world with increasingly regionalized or globalized markets, achieving optimal levels of efficiencies, knowledge transfer, and local product sensitivities. In terms of product or service adaptation, it must review the practicalities and costs involved in such organizational adaptation. There is no simple solution offered here. The transnational form, and the modern process-integrated multi-domestic, provide alternative solutions to the fundamental problem of configuring global integration to achieve the optimal levels of scale and scope economies coupled with sensitive local responsiveness. The centralized, standardized global organization still has a powerful role to play meeting clear universal needs.

These frameworks, of course, describe contrasting paradigms. Few actual MNCs fit neatly into one or another. Indeed the decision of where to locate and how to manage each function will be made by the MNC's top management on the basis of contingent circumstances and specific cost-benefit trade-offs. The likelihood of their arriving at a precise organizational form which fits neatly into one of the

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particular 'boxes' we have described is low. However, each of these paradigms, describing the different organizational forms, is appropriate for certain specific conditions and offers certain advantages for those conditions.

References

- Anand, J., and Delios, A. (1997). 'Location Specificity and the Transferability of Down-stream Assets to Foreign Subsidiaries'. *Journal of International Business Studies*, 28/3: 579–604. [Link](#)
- Ansoff, H. T. (1990). *Implementing Strategic Management* (2nd edn.). Hemel Hempstead: Prentice-Hall.
- Bartlett, C. A. (1986). 'Building and Managing the Transnational: The New Organizational Challenge', in M. Porter, *Competition in Global Industries*. Boston: Harvard Business School Press.
- and Ghoshal, S. (1989). *Managing across Borders*. London: Hutchinson.
- — (1990). 'Matrix Management: Not a Structure, a Frame of Mind'. *Harvard Business Review*, July-Aug.: 138–45.
- — (1993). 'Beyond the M-Form: Toward a Managerial Theory of the Firm'. *Strategic Management Journal*, 14/Special Issue (Winter): 23–46. [Link](#)
- Barwise, P., and Robertson, T. (1992). 'Brand Portfolios'. *European Management Journal*, 10/3: 277–85. [Link](#)
- Birkinshaw, J., Morrison, A., and Hulland, J. (1995). 'Structural and Competitive Determinants of a Global Integration Strategy'. *Strategic Management Journal*, 16: 637–55. [Link](#)
- Bjorkman, I. (1989). 'Foreign Direct Investments: An Organizational Learning Perspective' Working paper, Swedish School of Economics and Business Administration, Helsinki.
- Bowman, C., and Faulkner, D. (1997). *Competitive and Corporate Strategy*. London: Irwin Books.
- Buckley, P. J., and Casson, M. C. (1998a). 'Models of the Multinational Enterprise' *Journal of International Business Studies*, 29/1: 21–44. [Link](#)
- — Buckley (1998b). 'Analysing Foreign Market Entry Strategies: Extending the Internationalization Approach'. *Journal of International Business Studies*, 29/3 539–62. [Link](#)
- Chandler, A. D. (1962). *Strategy and Structure*. Cambridge, Mass.: MIT Press.
- (1990a). 'The Enduring Logic of Industrial Success'. *Harvard Business Review*, Mar.-Apr.: 130–40.
- (1990b). *Scale and Scope: The Dynamics of Industrial Capitalism*. Boston: Harvard University Press.
- Contractor, F. J., and Lorange, P. (eds.) (1988). 'Why Should Firms Cooperate?: The Strategy and Economic Basis for Cooperative Ventures', in *Cooperative Strategies in International Business*. Boston: Lexington Books.
- Dunning, J. H. (1974). *Economic Analysis and the Multinational Enterprise*. London: Allen and Unwin.

— (1998). 'Location and the MNE: A Neglected Factor?'. *Journal of International Business Studies* , 29/1: 45–66. [Link](#)

end p.673

Ghoshal, S. (1987). 'Global Strategy: An Organising Framework'. *Strategic Management Journal* , 8/5: 425–40.

— Ghoshal and Nohria, N. (1993). 'Horses for Courses: Organizational Forms for Multinational Corporations'. *Sloan Management Review* , Winter: 23–35.

Johanson, J., and Vahlne, J. (1977). 'The Internationalisation Process of the Firm: A Model of Knowledge Development on Increasing Foreign Commitments'. *Journal of International Business Studies* , Spring-Summer: 23–32. [Link](#)

Kogut, B. (1985). 'Designing Global Strategies: Comparative and Competitive Value Added Chains'. *Sloan Management Review* , 26/4: 15–28.

Levitt, T. (1983). 'The Globalisation of Markets'. *Harvard Business Review* , May-June 92–102.

Makhija, M. V., Kim, K., and Williamson, S. D. (1997). 'Measuring Globalization of Industries Using a National Industry Approach: Empirical Evidence across Five Countries and over Time'. *Journal of International Business Studies* , 28/4: 679–711. [Link](#)

Malnight, T. W. (1996). 'The Transition from Decentralized to Network-Based MNC Structures: An Evolutionary Perspective'. *Journal of International Business Studies* , 27/1: 43–65. [Link](#)

Melin, L. (1992). 'Internationalization as a Strategy Process'. *Strategic Management Journal* , 13/Special Issue (Winter): 99–118. [Link](#)

Nonaka, I. (1989). 'Managing Globalisation as a Self-Renewing Process: Experience of Japanese Multinationals'. Paper presented to Oxford colloquium, Templeton College, May.

Ohmale, K. (1985). *Triad Power: The Coming Shape of Global Competition* . New York: Free Press.

— (1989). 'Managing in a Borderless World'. *Harvard Business Review* , May-June: 152–61.

Perlmutter, H. V. (1969). 'The Tortuous Evolution of the MNC'. *Columbia Journal of World Business* , 4: 9–18.

Porter, M. E. (ed.) (1986). *Competition in Global Industries*. Boston: Harvard Business School Press.

— (1990). *The Competitive Advantage of Nations* . London: Macmillan Press.

Prahalad, C. K., and Doz, Y. (1987). *The Multinational Mission*. New York: Free Press.

Rugman, A. M., Lecraw, D. J., and Booth, L. D. (1985). *International Business: Firm and Environment* . New York: McGraw-Hill.

Stopford, J. M., and Wells, L. (1972). *Managing the Multinational Enterprise*. London: Longmans.

Vernon, R. (1966). 'International Investment and International Trade in the Product Cycle'. *Quarterly Journal of Economics* , May: 190–207. [Link](#)

Yetton, P., Davis, J., and Craig, J. (1995). 'Redefining the Multi-Domestic: A New Ideal Type MNC'. Working paper 95–016 Australian Graduate School of Management, Sydney, NSW.

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17 Why Diversify? Four Decades of Management Thinking

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17.1 Introduction

LARGE diversified corporations have been under critical scrutiny for many years. In 1951 the prevailing view in America was summarized in an article in the *Harvard Business Review*: 'The basic presumption is that a company turning from one type of activity to another is up to no good, especially if in the process it has become "big business"' (Andrews 1951: 94). Such companies were accused of being too powerful, and, in particular, of cross-subsidizing their different businesses in order to force competitors from the field. They were therefore seen as anti-competitive.

Today, diversified companies are also regarded by many commentators as being 'up to no good', but for just the opposite reason; they are now charged with being un-competitive. The problem is not that they are over-mighty competitors, but that

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they add no value to their businesses. In 1987 Michael Porter wrote of the failure of many corporate strategies:

I studied the diversification records of 33 large, prestigious US companies over the 1950–1986 period and found that most of them had divested many more acquisitions than they had kept. The corporate strategies of most companies have dissipated instead of created share-holder value. By taking over companies and breaking them up, corporate raiders thrive on failed corporate strategies. (Porter 1987: 43)

How has thinking about the rationale for diversified companies evolved during this period of time? Why has fear of the power of diversified companies been replaced with scepticism about their results? What have we learned, both about diversification strategies that work and those that do not work? There have been relatively few influential ideas about what constitutes a successful strategy for a diversified company. This paper explores the development of these ideas, and examines current thinking about corporate-level strategy.

17.2 Diversification and Corporate Strategy in the 1950s and 1960s

An important and enduring justification for the diversified company is the argument that the managers of these companies possess general management skills that contribute to the overall performance of a company. Kenneth Andrews argued that there had been a steady growth of executive talent in America, equal to the task of managing diversity. The establishment of business schools in the early twentieth century created the basis for the education of professional managers, and the divisionalized structure of large corporations provided the opportunities for younger managers to gain the requisite experience (Andrews 1951, 1969).

17.2.1 General Management Skills

The idea that professional managers possessed skills that could be put to good use across different businesses rested on the assumption that different businesses nevertheless required similar managerial skills. This assumption received support from management theory. During the 1950s and 1960s much scholarly attention focused on identifying basic principles of management, useful to all managers and applicable to all kinds of enterprises. Peter Drucker, in *The Practice of Management*, argued that 'intuitive' management was no longer sufficient. He encouraged managers

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to study the principles of management and to acquire knowledge and analyse their performance systematically (Drucker 1968: 21).

The interest in investigating and analysing underlying management principles continued into the 1960s. Harold Koontz wrote of the 'deluge of research and writing from the academic hall'. According to Koontz (1961: 175), it was the management process school, which aimed to identify universal principles of management, that held the greatest promise for advancing the practice of management.

Theorists such as Koontz and Drucker naturally emphasized the issues and problems which were common across different types of businesses, since their aim was to help all managers improve their skills and the performance of their businesses. Although they did not explicitly claim that professional managers could manage any business, it was not a great leap to conclude that, if all managers face similar problems, professional managers might be able to use their skills in different businesses. Simple observation, as well as theory, supported this idea. A writer in the *Harvard Business Review* noted that 'We are all familiar with those "professional managers" who are

becoming the prototypes of our modern executive world. These men shift with great ease and with no apparent loss in effectiveness, from one industry to another. Their human and conceptual skills seem to make up for their unfamiliarity with the new job's technical aspect' (Katz 1955: 37) There was wide-spread respect for management skills, and businessmen were encouraged to apply their general management skills to improve the effectiveness of charities, universities, and government (Langlie 1960; Jones 1960; Andrews 1969; and Shetty and Perry 1976).

In Europe, too, there was interest in general management skills. The founding of business schools in the United Kingdom and in France during the 1960s, and the growing interest in management training, was in part motivated by the perceived need to provide European managers with the same kind of general management skills as their US competitors. Indeed, there was concern in Europe that the management skills of US companies were so powerful that Americans would take over large chunks of European industry (Whitley, Thomas, and Marceau 1981; Servan-Schreiber 1968).

17.2.2 Rise of Conglomerates

During the 1960s, the growth of conglomerates, with their numerous acquisitions of unrelated businesses across different industries, provided almost laboratory conditions in which to test out the idea that professional managers could apply their skills to many different businesses. Conglomerates such as Textron, ITT, and Litton not only grew rapidly, but also profitably, and top managers of these companies

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perceived themselves as breaking new ground. For example, David Judelson of Gulf & Western claimed, 'Without the high degree of sophistication, skill, and effectiveness that management has developed only in the last two decades, the conglomerate could not exist. These management techniques provide the necessary unity and compatibility among a diversity of operations and acquisition' (Judelson 1972: 458). Harold Geneen (1984) used a system of detailed budgets, tight financial control, and face-to-face meetings among his general managers to build ITT into a highly diversified conglomerate. In 1967 Royal Little, who masterminded Textron's broad diversification, explained that the company succeeded because 'we are adding that intangible called business judgement' (Berg 1973: 16). Textron had common financial controls, budgetary systems, and capital allocation procedures across its many businesses, but it provided few central services and had only a very small corporate office. The group vice-presidents, who were responsible for a number of divisions, were appointed from outside the company. They acted as overseers and consultants to the divisions.

These new American conglomerates were admired abroad. In the United Kingdom, one writer wrote glowingly of Litton Industries and its spectacular growth across high-tech industries, claiming that the company was 'a technological achievement of its own, an operation in the technology of management as much as the management of technology' (Heller 1969: 378). Several British companies, such as Slater Walker, embarked upon a strategy of conglomerate diversification during the 1960s and 1970s. The emphasis in Britain, however, was more on identifying and buying companies whose assets were worth more than their stock market price and less on the application of sound, underlying general management principles by the top management group (Slater 1977: 91).

Did the conglomerates add value to their numerous businesses across different industries? The practices of at least some conglomerates such as Textron held up well under academic scrutiny. Norman Berg argued that corporate executives in such companies were fulfilling new roles as 'managers of managers'. While he admitted that it was too early to draw firm conclusions about the long-term success of conglomerates, Berg (1969) suggested that corporate strategies based on improving the performance of a diverse collection of businesses would have important implications for the practice of management and also for public policy.

For over twenty years, faith in general management skills seemed to justify a kind of virtuous circle of corporate growth and diversification. Andrews summarized the basic premiss, arguing that 'successful diversification—because it always means successful surmounting of formidable administrative problems—develops know-how which further diversification will capitalise and extend' (Andrews 1951: 98). The conglomerate movement of the 1960s, involving extensive diversification across a wide variety of industries, seemed to demonstrate that the specialized skills and practices of corporate general managers enabled them to manage ever greater complexity and diversity.

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17.2.3 Conglomerates and Performance Problems

There was little reason to question the belief that general management skills provided a sufficient rationale for diversified companies while such corporations were performing well and growing profitably. But by the late 1960s, conglomerates were encountering performance problems. In early 1969, the stock prices of conglomerates such as Litton, Gulf & Western, and Textron fell as much as 50 per cent from

their highs a year earlier, compared to a 9 per cent decline in the Dow Jones Industrial Average over the period, and one observer foresaw a round of conglomerate divestitures if such companies were to survive. Even ITT's consistent record of increased quarterly earnings over 58 quarters during the 1960s and 1970s was broken in 1974 (Attiyeh 1972; Geneen 1984: 43)

What became apparent was that sound principles of organization and financial control, coupled to a corporate objective of growth, were not, alone, sufficient to ensure satisfactory performance in highly diversified companies. Indeed, General Electric, a leader in the development of sophisticated techniques and principles for the management of a diverse portfolio of businesses, found by the early 1970s that its management approach had resulted in an extended period of what GE called 'profitless growth'. For example, the company's sales increased 40 per cent from 1965 to 1970, while its profits actually fell (Goold and Quinn 1990; Hamermesh 1986: 3; Hall 1978:17).

By the late 1960s, there was therefore an increasing awareness that a new approach to the management of diversity was needed.

17.3 Diversification and Corporate Strategy in the 1970s

As a response to the increasing recognition that large and diversified companies present particular management problems, increasing attention was devoted to the question of the issues on which general managers should focus their efforts.

17.3.1 The Concept of Strategy

One theme that emerged with increasing force during the 1960s and 1970s was the need for senior managers to focus their attention on the 'strategies' of their

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companies. Strategy was more than long-range planning or objective setting; it was a way of deciding the basic direction of the company and preparing it to meet future challenges (Drucker 1959; Ansoff 1965; Sloan 1986; Chandler 1982; Mace 1965).

C. Roland Christensen, one of the creators of the Business Policy course at Harvard Business School during the 1960s, argued that the concept of strategy made it possible to simplify the complex tasks of top managers (Learned et al. 1965). A focus on strategy prevented senior executives from meddling in operating details and day-to-day issues, which should be left to more junior managers with direct responsibility for them. It allowed them to concentrate on the most important issues facing their companies. And it simplified management by providing a framework for decisions.

CEOs readily accepted that strategy should be their main and unique responsibility. During the late 1960s and 1970s many companies established formal planning systems, and the appropriate structure and uses of such systems received much attention from academics (Vancil and Lorange 1975; Lorange and Vancil 1977; Ringbakk 1969; Berg 1965). In the early 1970s, Louis Gerstner remarked on how quickly strategic planning had been adopted by companies, noting that 'Writer after writer has hailed this new discipline as the fountainhead of all corporate progress' (Gerstner 1972: 5)

The strategic frameworks, models, and tools being developed by academics and consultants focused mainly on strategic issues at the level of the business unit, and they were, therefore, less relevant in helping to define an overall strategy for companies with many different businesses. Andrews (1980: 35), however, defined the main task of corporate-level strategy as identifying the businesses in which the firm would compete, and this became the accepted understanding of corporate strategy. This general concept of corporate strategy, though, did not provide much practical guidance to some of the problems managers of diversified companies confronted. In particular, it did not help them decide how resources should be allocated among businesses, especially when investment proposals were being put forward by a large number of disparate businesses, each with its own strategy. This problem was exacerbated when the aggregate demand for resources exceeded what was available.

17.3.2 Problems with Resource Allocation

Resource allocation decisions in diversified companies are a key part of corporate strategy. But they present particular difficulties. The corporate centre must take a view on the relative merits of investment proposals coming from a range of businesses in different sectors, with different time horizons, different competitive

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positions, and different risk profiles, not to mention management teams with differing credibilities. This can be complex. In the early 1970s, for example, a company such as ITT had to attempt to allocate resources between businesses that included telecommunications, insurance, rental cars, bakeries, and construction. With many divisions competing for funds, how could a company be sure it was

investing in the best projects for future growth (Berg 1965)?

Joseph Bower explored in detail how a large, diversified firm allocated resources. His research highlighted the gulf between financial theory, which saw the manager's task as choosing projects with the highest returns, and corporate reality, where all proposed projects showed at least the return required by the corporate hurdle rate for investment. In practice, divisional managers only proposed projects with acceptable forecast returns, and corporate-level managers had little basis on which to choose between projects.

Bower (1986) argued that investment decisions should not be made on a project-by-project basis, but had to be integrally related to a business's strategic product/market decisions. During the 1970s, the new techniques of portfolio planning that were introduced by the Boston Consulting Group and others gained wide acceptance because they helped corporate executives resolve practical problems of capital allocation in the context of an overall corporate strategy (Bower 1986; Hamermesh 1986).

17.3.3 Portfolio Planning

Portfolio planning provided corporate managers with a common framework to compare many different businesses. The industry attractiveness-business position matrix developed at GE, the Boston Consulting Group's growth-share matrix (Figure 17.1), and variations developed at other consultancies were used to classify businesses in terms of their strategic position and opportunities. These classifications helped managers both to set appropriate objectives and resource allocation strategies for different businesses, and to determine the over-all cash requirements and cash generation of the corporate portfolio (Hall 1978; Day 1977).

The helicopter view provided by portfolio planning techniques was widely perceived as useful. For example, one CEO explained:

Portfolio planning became relevant to me as soon as I became CEO. I was finding it very difficult to manage and understand so many different products and markets. I just grabbed at portfolio planning, because it provided me with a way to organise my thinking about our businesses and the resource allocation issues facing the total company. I became and still am very enthusiastic. I guess you could say that I went for it hook, line, and sinker. (Hamermesh 1986: 30)

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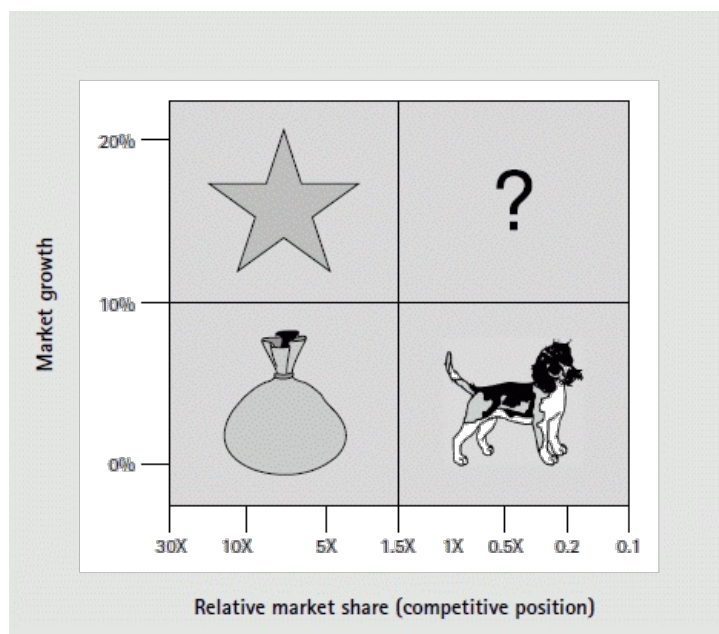


Fig. 17.1 Growth-share matrix

During the 1970s, more and more corporations adopted portfolio planning, with the largest diversified companies among the earliest adherents. A survey sponsored by the *Harvard Business Review* showed that by 1979, 45 per cent of the Fortune 500 companies were using some form of portfolio planning (Haspeslagh 1982).

In many companies, portfolio planning techniques became more than analytical tools to help chief executives direct corporate resources towards the most profitable opportunities: they became the basis of corporate strategy itself. The key concept here was the idea of a 'balanced' portfolio: that is to say, a portfolio made up of businesses whose profitability, growth, and cash flow characteristics would

complement each other, and add up to a satisfactory overall corporate performance. 'Imbalance' could be caused, for example, either by excessive cash generation with too few growth opportunities or by insufficient cash generation to fund the growth requirements elsewhere in the portfolio (Hedley 1977; Hofer and Schendel 1978). Often, the first step towards balancing the corporate portfolio was to identify businesses that were a drain on corporate resources. Monsanto, for example, used portfolio planning to restructure its portfolio, divesting low-growth commodity chemicals businesses and acquiring businesses in higher growth industries such as biotechnology (Hamermesh 1986: 71).

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Portfolio planning reinforced the virtuous circle of corporate growth and diversification that had been originally founded on general management skills. It helped corporate-level managers correct past diversification mistakes, leading to the divestiture of weak businesses, and it encouraged them to invest in a mix of businesses, with different strategic (and cash) characteristics to balance their corporate portfolios and ensure future growth.

17.3.4 Problems with Portfolio Management

But even as an increasing number of corporations turned to portfolio planning, problems emerged in managing 'balanced' portfolios (Bettis and Hall 1983). Companies discovered that while certain businesses appeared to meet all the economic requirements of the corporate portfolio, they did not fit easily into the corporate family. It turned out to be extremely difficult, for example, for corporate managers with long experience of managing mature businesses in a particular industry sector to manage effectively their acquired growth businesses in new, dynamic, and unfamiliar sectors.

Research on how companies actually used portfolio planning confirmed the difficulties of managing businesses with different strategic characteristics, missions, or mandates. Philippe Haspeslagh investigated whether companies adjusted their systems of financial planning, capital investment appraisal, incentive compensation, or strategic planning to fit the requirements of their different businesses. The focus of his study was on the role played by general management, rather than on specific business-level strategies. He found that companies made few changes in their formal corporate-level systems, but corporate-level managers in successful companies did make informal attempts to adapt these systems to their businesses (Haspeslagh 1982). In another study on the effectiveness of portfolio planning techniques, the authors discovered that cash cows performed better in an organizational context of autonomy while fast growing businesses benefited from more control. They concluded that the administrative context was an important variable in explaining business performance, and that many companies were taking the wrong approach to some of their businesses (Hamermesh and White 1984).

The recognition that different types of businesses had to be managed differently undermined the argument that general management skills, buttressed by the common frameworks of strategy and portfolio planning, provided the rationale for diversified companies. Many companies discovered that common systems and approaches, when applied to different kinds of businesses, could detract value from those businesses. Portfolio planning helped corporate executives sort out the contribution of each of their businesses to the corporate portfolio, but it did not answer the other critical question confronting a diversified company: what contribution should the corporation make to each of its businesses?

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17.4 Diversification and Corporate Strategy in the 1980s

During the 1980s, there was widespread scepticism about the ability of companies to manage and add value to diverse, conglomerate portfolios. Raiders such as Carl Icahn and T. Boone Pickens demonstrated that they could acquire even the largest companies, break them up, and realize huge profits. The takeover activity of the 1980s prompted a rethinking of both the role of the corporate centre in large companies, and of the kinds of strategies which were appropriate for diversified companies.

17.4.1 Cost-cutting at Headquarters

What seemed most obvious about the corporate level in many companies was not its contribution, but its cost. Thus, attention shifted onto cutting headquarters costs. Some companies turned central services into profit centres, charged with selling their services to the business units, while other companies disbanded some central functions altogether. The pruning of corporate staffs often meant devolving more authority to line managers in decentralized units (Kanter 1989: 94; More 1987).

Cost-cutting and the downsizing of corporate staffs, however, were not alone sufficient to demonstrate that corporate centres could add value to their businesses, and the overall performance of large, diversified corporations also came under increasing scrutiny. Michael Porter (1987) published a study showing the high rate of divestiture of acquisitions among American corporations, arguing that the

diversification strategies of many companies had failed to create value. And, the wave of takeovers caused executives to pay increasing attention to their company's stock price as analysts and raiders identified 'Value gaps', or the difference between the current stock market price of a company and its break-up value (Young and Sutcliffe 1990).

17.4.2 Value-based Planning

Faced with the threat from raiders and the criticism of academics such as Porter, chief executives devoted themselves increasingly to the task of creating shareholder value. Managers were encouraged to evaluate corporate performance in the same terms as the stock market (and raiders), using economic rather than accounting

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measures, and to take whatever actions were necessary to improve their company's stock price. Value-based planning, using the financial tools of discounted cash flow, ROE spreads, and hurdle rates, provided corporate managers with a fresh perspective on the linkages between stock prices and competitive strategy (Rappaport 1986; Reimann 1987).

A company's stock price, according to proponents of value-based planning, is determined by the value of the strategies of its businesses. However, it can be very difficult for managers to assess the strategies of dissimilar businesses: 'corporate level planners facing a portfolio of four, ten, dozens, or dozens and dozens of units do not know—probably cannot know—enough about each unit's competitive position, industry, rivals, and customers to make this determination' (Alberts and McTaggart 1984; Arzac 1986). One of the appeals of value-based planning is that, like portfolio planning, it offers corporate-level executives a means of evaluating many different businesses using a common framework. The corporate level can require business units to make strategic choices on the basis of economic returns, and doing this systematically across all units, it is argued, provides the corporate centre with the basis for making decisions on capital allocation.

Value-based planning techniques gained many adherents, especially among American corporations. In 1987 an article in *Fortune* described how 'managements have caught the religion. At first reluctant, they pound at the door of consultants who can teach them the way to a higher stock price—a price so high it would thwart even the most determined raider' (Curran 1987: 24).

But value-based planning also has limitations as a guide to corporate strategy. It can help corporate managers to focus on the goal of increasing shareholder wealth and to understand the criteria that must be met to do so. But it does not provide much insight into the kind of corporate strategies that should be pursued to meet these criteria. A higher stock price is a reward for creating value. But the key question remains: how can corporations add value to diverse business portfolios? Perhaps the most influential view on this vital topic to have emerged during the 1980s is that they should 'stick-to-the-knitting'.

17.4.3 Stick-to-the-Knitting

The concept of corporate success based on core businesses, or 'stick-to-the-knitting', gained popularity with the publication in 1982 of Peters and Waterman's *In Search of Excellence*. Successful corporations, they observed, did not diversify widely. They tended to specialize in particular industries and focused intently on improving their knowledge and skills in the areas they knew best (Peters and Waterman 1982).

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'Stick-to-the-knitting' advice was also a reaction against the analytical techniques and impersonal approach of much of strategic and portfolio planning. Bob Hayes and Bill Abernathy voiced these concerns in their article 'Managing Our Way to Economic Decline'. In their view, too many American corporations were being run by 'pseudo-professional' managers, skilled in finance and law, but lacking in technological expertise or in-depth experience in any particular industry. They warned that portfolios diversified across different industries and businesses were appropriate for stocks and bonds, but not for corporations (Hayes and Abernathy 1980). The need for experience and deep knowledge of a business was also emphasized by Henry Mintzberg, who criticized the 'thin and life-less' strategies that result from treating businesses as mere positions on a portfolio matrix. He argued that instead of broad diversity, we need 'focused organisations that understand their missions, know the people they serve, and excite the ones they employ; we should be encouraging "thick" management, deep knowledge, healthy competition and authentic social responsibility' (Mintzberg 1989: 373)

The widespread conviction that companies should 'stick-to-the-knitting' increased scepticism about the ability of corporations to manage and add value to diverse portfolios. It reinforced the practical pressures created by the corporate raiders and contributed to a wave of retrenching. From the mid-1980s onwards, a goal for many corporations has been to rationalize their portfolios to overcome the perceived disadvantages of broad diversification.

17.4.4 Corporate Restructuring

Restructuring (whether voluntary or not) has frequently led to the disposal of corporate assets. In 1985, for example, General Mills announced its intention to focus on its core businesses of consumer foods and restaurants, and the company sold off its toy and fashion businesses (Porter 1988). More recently, General Signal embarked on a strategy of 'back to the basics', retreating from its earlier major investments in high-tech businesses to focus on its traditional 'boring' products such as industrial mixers (Lubove 1992: 106).

Restructuring has been widely regarded as a salutary correction to the excesses of broad diversification. Michael Jensen has argued that corporate break-ups, divisional sell-offs, and LBOs are critical developments that can prevent the wasteful use of capital by managers of large public corporations, and other recent academic studies support the view that restructuring does help improve the performance of corporations (Jensen 1989; Chatterjee 1992; Bhagat, Shleifer, and Vishny 1990). But restructuring implies a sense of which businesses a company should retain and which it should divest. How should the 'core' businesses be selected?

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One answer is that companies should restructure to limit their businesses to one, or a few, closely related industries. In this way, managers stick to what they know well, and are best able to exploit corporate expertise. This approach is consistent with 'stick-to-the-knitting' advice, but it is not a complete answer. Successful companies such as GE, Hanson, and Cooper Industries nevertheless have businesses in many different industries. Furthermore, sticking to a single industry does not necessarily limit complexity or ensure that companies expand into areas they 'know'. During the 1980s, companies such as Prudential and Merrill Lynch sought to combine different types of financial services businesses. They discovered that businesses such as insurance, stockbroking, and banking, though all in the financial services industry, nonetheless required very different approaches, resources, and skills (Grant 1988, 1991a)

Another reservation about a 'stick-to-the-knitting' strategy based on limiting diversification to closely related businesses is that, despite extensive research, empirical evidence on the performance of companies pursuing more and less related diversification strategies is ambiguous and contradictory. Many studies have compared the performance of single-product firms, companies that diversify into related products, markets, or technologies, and unrelated conglomerates, but no firm relationship between different diversification strategies and performance has been discovered.¹

¹ This chapter is a revised and expanded version of John Kay, 'A Brief History of Business Strategy', in id., *Foundations of Corporate Success* (Oxford: Oxford University Press, 1993), 337–63.

Some concept of what constitutes a 'core portfolio'—or the corporate 'knitting'—is required, though, if restructuring is to result in long-term improvement in corporate performance.

17.5 Diversification and Corporate Strategy in the 1990s

The main issues for corporate strategy in the 1990s have therefore emerged as how to identify the businesses that should form a core portfolio for a corporation, and how to find ways of adding value to those businesses.

Three main alternative answers to these questions have received support in current management thinking:

- (1) diversification should be limited to those businesses with 'synergy';
- (2) the corporate focus should be on exploiting 'core competencies' across different businesses;

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- (3) successful diversification depends on building a portfolio of businesses that fit with the managerial 'dominant logic' of top executives and their 'management style'.

17.5.1 Synergy

Synergy occurs when the performance of a portfolio of businesses adds up to more than the sum of its parts. The concept of synergy is based in part on economies of scale; two or more businesses can lower their costs if they can combine manufacturing facilities, use a common sales force, or advertise jointly, and in this way the combined businesses are worth more than they would be on a stand-alone basis (Ansoff 1965).

In much of the current management literature, synergy has become virtually synonymous with corporate-level strategy. Michael Porter views the management of interrelationships between businesses as the essence of corporate-level strategy, arguing that without synergy a diversified company is little more than a mutual fund (Porter 1985). Rosabeth Moss Kanter (1989: 90), too, argues that the achievement of

synergy is the only justification for a multi-business company. In a review of the literature on mergers, Friedrich Trautwein (1990), a German academic, found that managers almost always justified diversification moves in terms of the synergies available, and that most of the advice in the management literature on diversification was based on the concept of realizing synergies.

In practice, however, many companies have found it very difficult to gain benefits from a corporate strategy based on synergy (Ramanujam and Varadarajan 1989; Campbell and Luchs 1992). Acquisitions aimed at realizing synergies can be especially risky; for example, two academic commentators have noted that anticipated synergy benefits 'show an almost unshakeable resolve not to appear when it becomes time for their release' (Reed and Luffman 1986: 34). Quantitative evidence appears to support the observation that synergies are hard to achieve; a recent study on takeovers concluded that most gains arise from asset disposals and restructuring rather than from synergy (Chatterjee 1992).

Those who view synergy as the essence of corporate-level strategy, including Porter and Kanter, acknowledge that companies find it difficult to gain synergy benefits and that the failure rate is high. Much of the current literature, therefore, focuses on implementation—what companies have to do in order to gain benefits from sharing skills or activities across businesses. Porter, for instance, discusses the need for the evolution of a new organizational form, which he calls the 'horizontal organization'. Horizontal organizations facilitate interrelationships across different businesses by overlaying horizontal structures, systems, and managerial approaches onto the vertical relationships which currently characterize the ties between business units and the corporate centre (Porter 1985). Kanter (1989) describes the

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emergence of the 'post-entrepreneurial corporation', which aims to create the relationships and management processes required for cross-business cooperation. Christopher Bartlett and Sumantra Ghoshal argue a similar case for the complex problems facing multinationals attempting to make the most of their businesses in different countries. In their view, multinationals need to develop new organizational capabilities so that components, products, resources, people, and information can flow freely between interdependent units. Bartlett and Ghoshal (1989) describe such an integrated network as a 'transnational' organization.

Transnational or horizontal or post-entrepreneurial organizations, by definition, capture many synergy benefits because they have the organizational capabilities to manage complex interrelationships across businesses. There are, however, very few examples of companies that represent these new kinds of organizations, at least in fully-fledged form. Consequently, much of the advice on synergy remains theoretical and prescriptive.

There is evidence, furthermore, that managing complex interrelationships to create synergies across businesses is not the only means of creating value. Michael Goid and Andrew Campbell (1987), in their study of strategic management styles, found in the 1980s that companies such as Hanson and Courtaulds, which placed very little emphasis on synergy as a source of corporate value added, performed at least as well as companies which placed more emphasis on linkages across businesses. These findings are reinforced by successful multi-business companies such as KKR, the leveraged buy-out specialist, and Berkshire Hathaway, managed by the renowned investor Warren Buffet, which are collections of independent businesses, and whose strategies are not based on exploiting synergies across their businesses. The assumption that synergy is the only rationale for a group of companies does not fit the available evidence, and this suggests that not all corporations need focus their efforts on constructing and managing portfolios of interrelated businesses.

Synergy remains a powerful concept in our understanding of corporate strategy, but it is difficult to accept that it is the 'one best way' to create value in a multi-business company. For some companies, the advantages of managing stand-alone businesses may outweigh the long-term investment required to create linkages among those businesses, and the potential for synergy may simply not exist in some corporate portfolios. We need to discover more about when synergy is an appropriate corporate strategy, and we need to learn more about how companies successful at managing interrelationships across businesses go about it.

17.5.2 Core Competencies

Another approach to corporate strategy stresses building on the core competencies of the corporation. This can be seen as a particular case of synergy, with corporate

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value creation dependent on exploiting unique skills and capabilities across a portfolio of businesses. Gary Hamel and C. K. Prahalad focus on technological competencies. They argue that the corporate portfolio should not be perceived simply as a group of businesses, but also as a collection of such competencies. In managing the corporate portfolio, managers must ensure that each part draws on and contributes to the core competencies the corporation is seeking to build and exploit. Even a poorly performing business may be contributing to an important core competence, and if managers divest such businesses they may also be discarding some of their

competencies. If corporations are unable to transfer a core competence from one business to another, then they are wasting their resources. According to Prahalad and Hamel (1990; Hamel and Prahalad 1989), many of the current management approaches of Western corporations, including SBUs, decentralization, and resource allocation practices, undermine the ability of corporations to build core competencies, since autonomous businesses seldom have the resources or vision to build world-class competencies.

Hiroyuki Itami (1987), a Japanese academic, focuses on building the corporation's 'invisible assets', such as expertise in a particular technology, brand names, reputation, or customer information. Such assets, he argues, can be employed throughout the firm without being used up, and they are the only sustainable source of competitive advantage. Philippe Haspeslagh and David Jemison, authors of a recent study on acquisitions, support a capabilities-based view of corporate value creation, defining core capabilities as managerial and technological skills gained mainly through experience. Such capabilities can be applied across the corporation's businesses and make an important contribution to customer benefits (Haspeslagh and Jemison 1991: 23). It can be difficult to define a corporation's capabilities objectively, but understanding what they are can provide important insights into its sources of competitive advantage and the strategic options of the firm (Grant 1991*b*; Campbell 1991; Stalk, Evans, and Shulman 1992).

The work on core skills, capabilities or resources, has generated much interest. Walter Kiechel, in *Fortune* magazine, described how some executives are perceiving their role, and that of the corporate centre, as guardians and promoters of the company's core skills, and sums up the current understanding of these concepts: 'To the extent that such skills can be exploited by each of the company's businesses, they represent a reason for having all those businesses under one corporate umbrella—a much better reason, the experts add, than the fabled synergies that multibusiness companies of yore were supposed to realise but seldom did' (Kiechel 1988: 20).

But corporations, which do base their strategy on core competencies, have to be careful that the overall competence-based strategy does not become an excuse for poor performance or poor judgement. IBM, for example, acquired Rolm in order to gain access to the smaller company's expertise in PBX systems. Five years later, however, following heavy losses, IBM sold a majority stake in Rolm to Siemens. Some commentators feel that IBM was too optimistic about Rolm's competencies

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and potential and not sufficiently knowledgeable about changes underway in the PBX market or within Rolm (Hof and Keller 1989: 82–4). It can be difficult to judge when an investment in a business is justified in terms of building a core competence, particularly if it means suspending normal profitability criteria and if the investment is in an unfamiliar business area.

Another danger with the competence approach to corporate strategy is that businesses may require similar core competencies, but demand different overall strategies and managerial approaches. Texas Instruments, for example, attempted to exploit the core competence it had developed in its semi-conductors business in areas such as calculators, watches, and home computers. It failed in these new areas not because it lacked the core semi-conductor competence, but because its top management had no experience in managing such consumer-oriented businesses (Prahalad and Bettis 1986: 495).

Similarly, Procter & Gamble applied its skills in product innovation and consumer promotion to a soft drinks business, Crush, but eventually divested the business because it ran into unfamiliar problems managing the local bottlers who largely control distribution of soft drinks (Winters 1989). Core competencies may add value in specific areas in a variety of different businesses, but this is no guarantee that, overall, a company will be able to manage those different businesses successfully.

The work on core competencies and capabilities broadens our understanding of a corporation's resources, and points out the important role of the corporate centre in building such resources and ensuring that they are used to best advantage. As with synergy, however, it is difficult to accept that this is the only way to add value to a corporate portfolio. Corporate centres are concerned not only with building skills and competencies in their businesses, but also with allocating resources to them, approving their plans and strategies, and monitoring and controlling their results. These important 'planning and control' functions can also be a source of added value, if done well. Some companies, such as Berkshire Hathaway and Hanson, lay far more stress on these planning and control functions than on competence building; and, in all companies, the planning and control functions occupy a vital place, even where the management of core competencies is also a focus of attention.

17.5.3 Dominant Logic and Management Style

A third approach to corporate success focuses on how the corporate centre adds value to a portfolio of businesses, in particular in its planning and control role. C. K. Prahalad and Richard Bettis argue that the more diverse a firm, the more complex the problems in managing it. Diversity, however, cannot be defined simply in terms

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of the number of product/markets in which a firm competes; the strategic variety of the firm's businesses is a more significant measure of its diversity.

With firms in strategically similar businesses, the centre can use common methods and approaches, using a single managerial dominant logic: 'A dominant general management logic is defined as the way in which managers conceptualise the business and make critical resource allocation decisions—be it in technologies, product development, distribution, advertising, or in human resource management' (Prahalad and Bettis 1986: 490).

When managerial dominant logic does not match the needs of the business, tensions and problems arise. The corporate centre is liable to appoint the wrong managers to the business, to sanction inappropriate plans and investments, to control against the wrong targets, and to interfere unproductively in the managing of the business.

Goold and Campbell's work on strategic management styles shows how dominant logic works in specific companies. In their research on large, diversified companies they identified different types of strategic management styles, with the main styles being Financial Control, Strategic Control, and Strategic Planning. The different styles each added value, but in different ways and to businesses with different characteristics and requirements. Financial Control companies, for example, have distinctive administrative and control systems, emphasizing the setting and meeting of annual budget targets. Although they may invest in a wide variety of industries, the portfolios of businesses of successful Financial Control companies share common characteristics (Goold and Campbell 1987). Hanson was a good example: 'The company's strategy is to focus on mature, stable businesses: "We avoid areas of very high technology. We do not want to be in businesses which are highly capital intensive, where decision-making has to be centralised or which rely on huge and sometimes expensive research with a prospect of a return sometime or never"' (Campbell, Devine, and Young 1990: 242).

In this view, the dominant logic or management style of the corporate management group is central to the performance of a diversified firm, and a group of businesses is best managed when the dominant logic of top managers matches the strategic characteristics and requirements of the businesses. The importance of the 'fit' between top managers and the businesses in the corporate portfolio has also been emphasized by executives. Orion Hoch of Litton, for example, explained the reasons for Litton's extensive divestments and restructuring: 'Our aim was to go back to businesses that we could be comfortable with.... We wanted to get back to doing what we were good at doing' (*Barron's*, 20 May 1991). Gary Roubos, CEO of Dover Corporation, argued that the company was a successful conglomerate because it invested only in businesses in which it had considerable management 'feel', even though these businesses were highly diverse: 'Automatic lifts and toggle clamps are different—but they have much more in common than, say, investment banking and selling soap' (Aguilar 1988).

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17.5.4 Dominant Logic, Management Style, and Success

Dominant logic may help explain why conglomerate diversification can succeed, and also why diversification based on synergy or core competencies can fail. If conglomerate diversification, such as that of Hanson, is based on businesses with a similar strategic logic, then it is possible for the corporate centre to take a common approach and to add value to those businesses. On the other hand, businesses with opportunities for sharing activities or skills, or ones requiring the same core competence, may nonetheless have different strategic logics. This makes it difficult for a corporate centre to realize synergy or exploit a core competence across the businesses. Oil companies that diversified into other extractive, energy or natural resource businesses in pursuit of synergies or core competencies tended to find that the benefits they sought were overwhelmed by the problems caused by dissimilarities in strategic logic between the new businesses and the core oil businesses.

The concepts of dominant logic and management style offer some promising insights into both successful and unsuccessful diversification efforts, but there are unanswered questions (Goold and Campbell 1991:115–17) Should diversified corporations aim to build portfolios of strategically related businesses, to ensure that top management and corporate systems and approaches do add value? Or should corporations seek to differentiate their approaches—develop 'multiple dominant logics'—in order to manage businesses with different strategic characteristics successfully? Goold and Campbell discovered that companies tend to adopt a particular strategic management style, even though the style was usually implicit. They observed that it was difficult for managers to cope with a variety of approaches or styles. They argued that CEOs should aim to focus their portfolios on the kinds of businesses which would gain benefits from their strategic management style (Goold and Campbell 1987). On the other hand, authorities on multinationals argue that the increasing complexities of globally spread businesses and international competition require corporations to develop new capabilities to manage businesses facing different strategic issues. C. K. Prahalad and Yves Doz (1987: 261) maintain that the winners in the struggle for global competitive advantage will be those companies that can develop differentiated structures, management processes, and systems appropriate to the wide variety of their businesses. Bartlett and Ghoshal describe how the 'administrative heritage' of companies emphasizes a particular approach to issues such as coordination across businesses, but they argue that the idealized transnational company should be able to combine different approaches and develop 'a full arsenal of coordinating processes, practices, and tools, and

to use those mechanisms in the most effective and efficient manner' (Bartlett and Ghoshal 1989: 166).

The question of whether it is possible to add value to many different kinds of businesses is critical. Bartlett and Ghoshal found evidence that some companies are seeking ways to encompass much more variety, but none had yet become a true transnational. Goold, Campbell, and Alexander (1994) found that the most

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successful diversified companies were those not attempting to add value to different fields of business. The most successful companies, like Rio Tinto the mining company or Unilever the consumer products company, were applying a consistent managerial formula to a portfolio of similar kinds of businesses. The authors concluded that these firms had 'parenting advantage': their corporate centres were better at adding value to certain kinds of business than rivals. These firms were also worse than rivals at adding value to businesses that did not fit their 'medicine'. As a result they had divested these businesses to rival parent companies. Sadtler, Campbell, and Koch (1997) reinforced this conclusion by studying spinoffs, demergers, and break-ups. They noted that the success of spinoffs and demergers was due to the management improvements that came about when a division or business was released from the inappropriate influence of its previous parent. They even developed a break-up index, showing which companies most needed to break up. These were companies with portfolios containing different kinds of businesses.

As the trend for focus has gathered momentum, it appears that companies are abandoning their attempts to manage highly complex, differentiated portfolios. It appears to be easier to add value to a portfolio of like businesses. The companies with portfolios of different kinds of businesses need very large synergies to justify the complexity costs and the risks of inappropriate planning and control.

17.6 The Challenge of Diversification

During the last four decades, managers and academics have sought both to understand the basis of successful diversification and to address the problems created by such diversification. Figure 17.2 summarizes the evolution of thinking and practice during this time.

From the 1950s onwards, the development of management principles and the professional education of managers led to the belief that general management skills provided the justification for diversification. Diversified companies and conglomerates were seen to add value through the skills of their professional top managers, who applied modern management techniques and generalized approaches to a wide variety of businesses across different industries. During the late 1960s, however, the performance of many conglomerates weakened, and a new approach to corporate management of diversity was sought. The concepts of strategy and strategic management provided a new focus for senior management's attention during the 1970s, but soon proved unable to resolve many of the choices and trade-offs involved in resource allocation in the multi-business firm. Portfolio planning techniques helped many companies improve capital allocation across businesses with different

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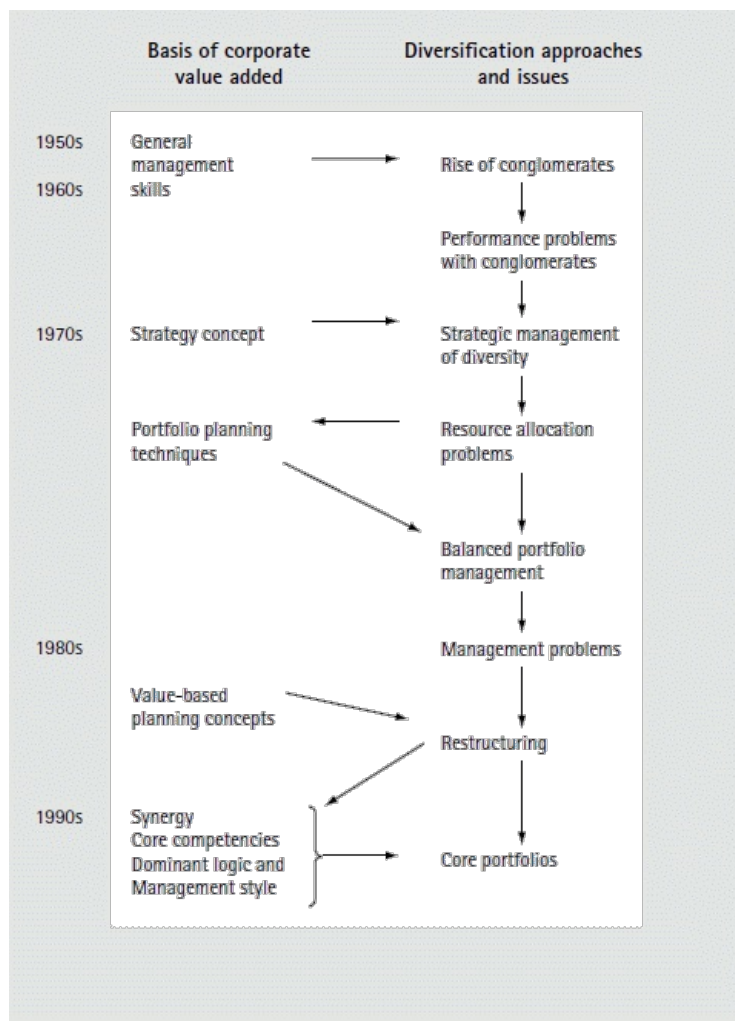


Fig. 17.2 Evolution of thinking on corporate strategy and diversification

strategic positions, and led on to the idea of balanced portfolio management. But such analytical approaches overlooked the problem of manageability. Many companies found it difficult to manage businesses facing different strategic issues, and during the 1980s poor corporate performance again became a critical issue. Raiders, executives, and academics realized that many diversified corporations were not creating shareholder value, and there was a wave of takeovers, corporate break-ups,

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and restructuring. The main themes of corporate strategy during the 1980s became restructuring back to core businesses and a resolve to 'stick-to-the-knitting'.

As we move into the twenty-first century, it appears that sticking-to-the-knitting means different things in different situations. In general it means sticking to a portfolio of businesses that will respond well to the managerial influences of the parent organization.

In some situations, this may mean combining very different businesses (such as music and internet service providers as AOL Time Warner is doing) because the synergy logic or core competence logic is so powerful. However, experience suggests that managers often overrate the synergy benefits and underrate the management challenge. More normally, therefore, sticking-to-the-knitting means limiting diversification to businesses with similar strategic logics which will respond well to a similar set of influences from their corporate parent.

In industry after industry, managers have demonstrated that the corporate parent finds it hard, if not impossible, to add value to businesses with different cultures and different critical success factors. 3M, one of this century's great success stories of innovation and creativity, is an interesting lesson. 3M's success was built on creating leading technical positions in niches. Managers invested heavily in research and priced their products for high margins to generate the profits for investing in more research. If low price competitor entered the niches, 3M would develop new technical advantages or walk away from the business.

However, in the 1980s the company had developed a major position in the business of recording tapes. As the business matured, 3M

decided it could not walk away from it. It was too large. 'We have to learn how to compete in a mature, low-cost game,' managers explained. After more than ten years of intensive managerial effort and continued underperformance versus their low-cost competitors, 3M gave up the challenge and spun off the business.

17.7 Summary

After four decades of management thinking, we are beginning to arrive at a consensus about diversification. Businesses should not be retained in the portfolio or added to the portfolio unless the parent company can create more value from the businesses than they could create on their own or with any other parent.

We are also beginning to understand the limitations of parent company skills. The dominant logics observed by Prahalad and Bettis prove to be entrenched and more limited than most management thinkers had hoped. Or to take a more

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positive view, the intensity of competition between parent companies is becoming so great that it is only possible to 'create more value' when the portfolio is tightly focused on similar kinds of businesses.

References

- Aguilar, F. J. (1988). 'Groen: A Dover Industries Company'. HBS Case 9-388-055.
- Alberts, William W., and McTaggart, James M. (1984). 'Value Based Strategic Investment Planning'. *Interfaces*, Jan.-Feb.: 138-51.
- Andrews, Kenneth R. (1951). 'Product Diversification and the Public Interest'. *Harvard Business Review*, July: 91-107.
- (1969). 'Toward Professionalism in Business Management'. *Harvard Business Review*, Mar.-Apr.: 49-60.
- (1980). *The Concept of Corporate Strategy* (1971, revised edn.). Homewood, 111.: Richard D. Irwin, Inc.
- Ansoff, H. Igor (1965). *Corporate Strategy*. New York: McGraw-Hill.
- Arzac, Enrique R. (1986). 'Do Your Business Units Create Shareholder Value?' *Harvard Business Review*, Jan.-Feb.: 121-6.
- Attiyeh, Robert S. (1972). 'Where Next for Conglomerates?' *Business Horizons*, Dec. 1969: 39-44- Reprinted in John W Bonge and Bruce P. Coleman (eds.), *Concepts for Corporate Strategy*. New York: Macmillan.
- Bartlett, Christopher A., and Ghoshal, Sumantra (1989). *Managing Across Borders: The Transnational Solution*. Boston: Harvard Business School Press.
- Berg, Norman A. (1965). 'Strategic Planning in Conglomerate Companies'. *Harvard Business Review*, May-June: 79-92.
- (1969). 'What's Different about Conglomerate Management?', *Harvard Business Review*, Nov.-Dec: 112-20.
- (1973) 'Textron, Inc.'. Hbs Case Study 373-337.
- Bettis, Richard A. (1981). 'Performance Differences in Related and Unrelated Diversified Firms'. *Strategic Management Journal*, 2: 379-93. [Link](#)
- and Hall, William K. (1983). 'The Business Portfolio Approach—Where it Falls Down in Practice'. *Long Range Planning*, 16/2 (Apr.): 95-104. [Link](#)
- Bhagat, S., Shleifer, A., and Vishny, R. (1990). 'Hostile Takeovers in the 1980s: The Return to Corporate Specialization'. *Brookings Papers on Economic Activity: Microeconomics*.
- Bower, Joseph L. (1986). *Managing the Resource Allocation Process*. Boston: Harvard Business School Press, 1970. Harvard Business School Classics Edition, 1986.
- Campbell, Andrew (1991). 'Building Core Skills'. Research Report, Ashridge Strategic Management Centre.
- and Luchs, Kathleen (1992). *Strategic Synergy*. Oxford: Butterworth-Heinemann.
- Devine, Marion, and Young, David (1990). *A Sense of Mission*. London: Hutchinson.
- Chandler, Alfred D., Jr. (1982). *Strategy and Structure* (1962; reissued 1982). Cambridge, Mass.: Mit.

end p.531

Chatterjee, S. (1992). 'Sources of Value in Takeovers: Synergy or Restructuring—Implications for Target and Bidder Firms'. *Strategic Management Journal*, 13/4 (May): 267–86. [Link](#)

Christensen, Kurt H., and Montgomery, Cynthia A. (1981). 'Corporate Economic Performance: Diversification Strategy Versus Market Structure'. *Strategic Management Journal*, 2: 327–43. [Link](#)

Curran, John J. (1987). 'Are Stocks Too High?' *Fortune*, 28 Sept.

Day, George S. (1977). 'Diagnosing the Product Portfolio'. *Journal of Marketing*, Apr.: 29–38.

Drucker, Peter (1959). 'Long-Range Planning: Challenge to Management Science'. *Management Science*, 5/3 238–49. [Link](#)

— (1968). *The Practice of Management* (1955; reissued 1968). New York: Pan Books.

Geneen, Harold, with Moscow, Alvin (1984). *Managing*. New York: Doubleday & Co. Inc.

Gerstner, Louis V. (1972). 'Can Strategic Management Pay Off?' *Business Horizons*, 15/6 (Dec).

Goold, Michael, and Campbell, Andrew (1987). *Strategies and Styles*. Oxford: Basil Blackwell Ltd.

— — (1991). 'BriefCase: From Corporate Strategy to Parenting Advantage'. *LongRange Planning*, 24/1 (Feb.): 115–17. [Link](#)

— — and Quinn, John (1990). *Strategic Control*. London: Hutchinson and Economist Publications.

— —Campbell, Andrew, and Alexander, Marcus (1994). *Corporate Level Strategy*. New York: John Wiley and Sons, Inc.

Grant, Robert M. (1988). 'On "Dominant Logic," Relatedness and the Link between Diversity and Performance'. *Strategic Management Journal*, 9/6 (Nov.-Dec): 639–42. [Link](#)

— (1991 a). 'Diversification in the Financial Services Industry: Why are the Benefits of Synergy so Elusive?' Research Paper.

— (1991 b). 'The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation'. *California Management Review*, Spring: 114–35.

Hall, William K. (1978). 'Sbus: Hot, New Topic in the Management of Diversification'. *Business Horizons*, Feb.: 17–25.

Hamel, Gary, and Prahalad, C. K. (1989). 'Strategic Intent'. *Harvard Business Review*, May–June: 63–76.

Hamermesh, Richard G. (1986). *Making Strategy Work*. New York: John Wiley & Sons.

— —and White, Roderick E. (1984). 'Manage Beyond Portfolio Analysis'. *Harvard Business Review*, Jan.-Feb.: 103–9.

Haspeslagh, Philippe (1982). 'Portfolio Planning: Uses and Limits'. *Harvard Business Review*, Jan.-Feb.: 58–73.

— and Jemison, David B. (1991). *Managing Acquisitions*. New York: Free Press.

Hayes, Bob, and Abernathy, Bill (1980). 'Managing Our Way to Economic Decline'. *Harvard Business Review*, July–Aug.: 67–77.

Hedley, Barry (1977). 'Strategy and the "Business Portfolio"'. *Long Range Planning*, Feb.: 9–15. [Link](#)

Heller, R. (1969). 'The Legend of Litton'. *Management Today*, Oct. 1967. Reprinted in H. Igor Ansoff (ed.), *Business Strategy*. Harmondsworth: Penguin Books, 1969.

Hof, Robert D., and Keller, John J. (1989). 'Behind the Scenes at the Fall of Rolm'. *Business Week*, 10 July: 82–4.

end p.532

Hofer, Charles W., and Schendel, Dan (1978). *Strategy Formulation: Analytical Concepts*. New York: West Publishing Company.

Itami, Hiroyuki (1987). *Mobilizing Invisible Assets*. Cambridge, Mass.: Harvard University Press.

Jensen, Michael (1989). 'The Eclipse of the Public Corporation'. *Harvard Business Review*, Sept.-Oct.: 61–74.

Johnson, Gerry, and Thomas, Howard. (1987). 'The Industry Context of Strategy, Structure and Performance: The U.K. Brewing Industry'. *Strategic Management Journal*, 8: 343–61. [Link](#)

Jones, Thomas Roy (1960). 'Top Management's Responsibility to the Community', in H. B. Maynard (ed.), *Top Management Handbook*. New York: McGraw-Hill.

Judelson, David N. (1972). 'The Conglomerate—Corporate Form of the Future'. *Michigan Business Review*, July 1969: 8–12. Reprinted in John W. Bonge and Bruce P. Coleman (eds.), *Concepts for Corporate Strategy*. New York: Macmillan, 1972.

Kanter, Rosabeth Moss (1989). *When Giants Learn to Dance*. London: Simon & Schuster.

Katz, Robert L. (1955). 'Skills of an Effective Administrator'. *Harvard Business Review*, Jan.-Feb.

Kiechel, Walter (1988). 'Corporate Strategy for the 1990s'. *Fortune*, 29 Feb.

Koontz, Harold (1961). 'The Management Theory Jungle'. *Academy of Management Journal*, 4/3 (Dec): 174–88. [Link](#)

Langlie, Arthur B. (1960). 'Top Management's Responsibility for Good Government', in H. B. Maynard (ed.), *Top Management Handbook*. New York: McGraw-Hill.

Learned, E. P., Christensen, C. R., Andrews, K. R., and Guth, W D. (1965). *Business Policy: Text and Cases*. Homewood, Ill: Richard D. Irwin.

Lorange, P., and Vancil, R. F. (1977). *Strategic Planning Systems*. Englewood Cliffs, NJ: Prentice-Hall.

Lubove, Seth (1992). 'Dog with Bone'. *Fortune*, 13 Apr.

Mace, Myles L. (1965). 'The President and Corporate Planning'. *Harvard Business Review*, Jan.-Feb.: 49–62.

Mintzberg, Henry (1989). *Mintzberg on Management*. New York: Free Press.

More, Thomas (1987). 'Goodbye, Corporate Staff'. *Fortune*, 21 Dec.

Peters, Thomas J., and Waterman, Robert H. (1982). *In Search of Excellence*. New York: Free Press.

Porter, M. E. (1985). *Competitive Advantage*. New York: Free Press.

— (1987) 'From Competitive Advantage to Corporate Strategy'. *Harvard Business Review*, May–June: 43–59.

— (1988). 'General Mills, Inc: Corporate Strategy'. HBS Case Study 9–388-123.

Prahalad, C. K., and Bettis, R. A. (1986). 'The Dominant Logic: A New Linkage between Diversity and Performance'. *Strategic Management Journal*, 7: 485–501.

— and Doz, Yves L. (1987). *The Multinational Mission*. London: Free Press.

— and Hamel, Gary (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May–June: 79–91.

Ramanujam, Vasudevan, and Varadarajan, P. (1989). 'Research on Corporate Diversification: A Synthesis'. *Strategic Management Journal*, 10: 523–51. [Link](#)

Rappaport, Alfred (1986). *Creating Shareholder Value: The New Standard for Business Performance*. New York: Free Press.

end p.533

Reed, Richard, and Luffman, George A. (1986). 'Diversification: The Growing Confusion'. *Strategic Management Journal*, 7: 29–35. [Link](#)

Reimann, Bernard C. (1987). *Managing for Value*. Oxford: Basil Blackwell.

Ringbakk, K. A. (1969). 'Organized Planning in Major U.S. Companies'. *Long Range Planning*, 2/2 (Dec): 46–57. [Link](#)

Rumelt, Richard P. (1974). *Strategy, Structure and Economic Performance*. Boston: Harvard Business School Press.

— (1982). 'Diversification Strategy and Profitability'. *Strategic Management Journal*, 3: 359–69. [Link](#)

Sadtler, David, Campbell, Andrew, and Koch, Richard (1997). *Breakup! Why Large Companies Are Worth More Dead Than Alive*. Oxford: C apstone Publishing.

Servan-Schreiber, J.-J. (1968). *The American Challenge*, trans. Ronald Steel. London: Hamish Hamilton.

Seth, Anju. (1990). 'Value Creation in Acquisitions: A Re-Examination of Performance Issues'. *Strategic Management Journal*, 11: 99–115. [Link](#)

Shetty, Y. K., and Perry, Newman S., Jr. (1976). 'Are Top Executives Transferable across Companies?' *Business Horizons*, June: 23–8.

Slater, Jim (1977). *Return to Go: My Autobiography*. London: Weidenfeld and Nicolson.

Sloan, Alfred P. (1986). *My Years with General Motors*. New York: Doubleday, 1963; reissued Harmondsworth: Penguin Books, 1986.

Stalk, George, Evans, Philip, and Shulman, Laurence E. (1992). 'Competing on Capabilities'. *Harvard Business Review*, Mar.-Apr.: 57–69.

Trautwein, Friedrich. (1990). 'Merger Motives and Merger Prescriptions'. *Strategic Management Journal*, 11: 283–95. [Link](#)

Vancil, R. F., and Lorange, P. (1975). 'Strategic Planning in Diversified Companies'. *Harvard Business Review*, Jan.-Feb.: 81–90.

Whitley, Richard, Thomas, Alan, and Marceau, Jane (1981). *Masters of Business? Business Schools and Business Graduates in Britain and France*. London: Tavistock Publications.

Winters, Patricia (1989). 'Crush Fails to Fit on P&G Shelf'. *Advertising Age*, 10 July.

Young, David, and Sutcliffe, Brigid (1990). 'Value Gaps—The Raiders, the Market or the Managers?' Research Paper, Ashridge Strategic Management Centre, Jan.

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18 The Rationale for Multi-SBU Companies

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Yves L. Doz

18.1 Introduction

In the last fifteen years greater recognition has been given to the importance of the CEO and top management in large, diversified companies. The sharp rise in their pay and their increasing public prominence are examples.

The role of top management is now seen as being essentially entrepreneurial, in other words about wealth creation. An administrative view, involving control, monitoring, and coordination is now seen as insufficient. Top management needs to develop an economic logic for its role, one that explains why the company has chosen this portfolio of businesses, and why management has chosen this particular set of governance and internal management processes.

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At the same time as the top jobs have been getting greater recognition, so has the need for companies, particularly diversified companies, to articulate an economic logic that explains why they exist, and to continually reinvent the logic as circumstances change.

The need for an economic explanation has arisen not just because companies operate in an economic system, but also because many diversified companies and many diversification strategies have failed. Previous logics that drove companies to build diversified portfolios—the need to spread risk, the benefit of providing smooth earnings growth, the value of balance, and the need for long-term survival—have all been questioned if not abandoned. Top managers are, therefore, now expected to create their own logics—to explain how their particular configuration of business and governance process will create value. They are also expected to adjust their logics in the face of change.

In this chapter we will explore this task of the top management of a diversified firm. First, we will outline a framework for thinking about wealth creation in a diversified firm. Second, we will identify some of the key dilemmas that the CEO and the top management group face.

18.2 The Wealth Creation Process

Our understanding of the process of sustained wealth creation can be conceptualized as the interaction of three interlinked elements, as shown in Figure 18.1.

Sustained wealth creation requires the mobilization of a bundle of resources and assets that is appropriate to the environment. In a changing environment managers need to periodically re-evaluate the configuration of assets and resources that they want to own or access. Invariably, therefore, portfolio reconfiguration is high on the list of CEOs seeking to improve performance. A portfolio configuration choice carries with it, explicitly or not, value creation logic: How does this particular bundle of assets create value, over and beyond each business or/and each category of assets? The portfolio configuration sets the specifications of the value creation logic; while, in turn, the value creation logic sets rules for inclusion and exclusion in the asset portfolio. A thoughtful CEO works on both portfolio configuration and value creation logic at the same time.

The portfolio composition and value creation logics also drive the internal governance processes within the firm: the organizational, administrative, and political reflection of the value creation logic. Governance is about deciding the basic organizational building blocks that constitute the diversified firm, as well as the processes and values that govern the performance demanded from the units,

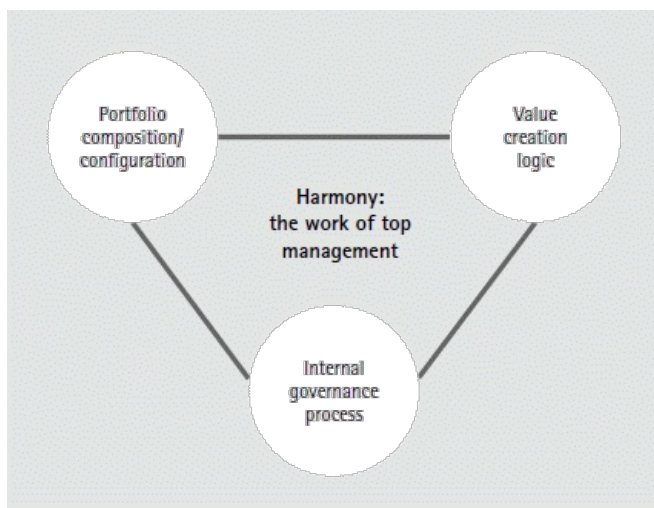


Fig. 18.1 A framework for wealth creation

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strategic and operational priorities, inter-unit relationships, and the appropriate internal dialogues and behaviours. Internal governance defines how the asset portfolio is managed and conditions the capacity of the firm to create wealth.

Wealth creation demands constructive and harmonious interactions between portfolio configuration, value creation logic, and internal governance process. Building, maintaining, and evolving such interactions in the face of changing circumstances is the essence of the work of top management. To better understand this work we will first examine the three elements of wealth creation in some detail, stressing that they need to be considered as separate, but that any top management choices can only be made from a consideration of their interdependencies.

18.2.1 Assets and Resources: The Portfolio Configuration

Portfolio reconfiguration is perhaps the most visible manifestation of CEO action in almost all major firms. Many firms have divested businesses that they had acquired only a few years earlier. Companies that diversified during the 1970s and early 1980s frequently refocused their portfolios in the late 1980s and early 1990s (Markides 1995). What is the rationale?

In almost all cases, portfolio reconfiguration is based on a fresh assessment of the meaning, basis, and value of relatedness among businesses in the portfolio, often resulting from a new value creation logic. Relatedness is hardly a new concept in strategic management, but the emphasis in considering relatedness is shifting from

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seeing it as an economic given to seeing it as the result of managerial thought and imagination and of management's choice of value creation logic. While Wrigley (1970) started the research on patterns of diversification and performance, Rumelt's seminal work (1974) has been the cornerstone of the voluminous research work on diversification and performance during the last twenty years. Rumelt classified firms as related, related linked, related constrained, and unrelated or conglomerate, based on (a) specialization ratio (percentage of business attributable to the firm's largest single business), (b) vertical ratio (percentage of revenues attributable to the largest group of vertically integrated businesses within the firm), and (c) related ratio (percentage of revenues attributable to the largest group of related businesses within the firm). While sales data were used to sort the diversification patterns into one of the four diversification strategies, the underlying logic for classification was product-market and technology derived. The tests of 'relatedness' in this schema is 'objective' in the sense that an outsider studying the portfolio can arrive at the same conclusion as that of insiders, making relatedness an economic given. This scheme, with minor variations, has endured. More recently, Dosi, Teece, and Winter (1994) showed that many firms are 'coherent' diversifiers, meaning that their pattern of diversification is consistent with their learning and skill base. This pattern of diversification is path-dependent and idiosyncratic with respect to the firm. What might appear to be unrelated diversification in the earlier Rumelt schema may appear to be 'coherent' here. This view of diversification is derived from the history of the firm. It raises the possibility that 'relatedness' as seen by managers may be different from an 'objective outsider's' perspective.

18.2.2 Types of Relatedness

Relatedness, though, once no longer seen as a given, may be defined along various dimensions, not just the learning and skill development path of the firm.

1. Business selection. Perhaps the simplest form of corporate relatedness is merely to select 'good' businesses. Although there is a lot more to General Electric's success, selecting businesses in leading positions, or with the potential to achieve leading positions, with activities sheltered from the most ruthless forms of competition, is one of the cornerstones of the company's strategy. This value creation logic was clearly articulated by CEO Jack Welch. It is based on dominating an industry—being number 1 or 2, or out. Less clearly stated, but well understood, are the other assumptions behind the logic: relentless cost reduction, picking businesses not subject to intense Japanese (and Korean) competition, and where the playing field favours Americans. All these criteria for value creation can be applied to the entire portfolio of GE. Every one of the businesses, as stand-alone entities, can apply these tests and so can corporate. When Jack Welch became CEO, many

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of its businesses were already dominant players with world scale (if not worldwide) operations such as lighting, appliances, and medical systems. Welch had a varied enough portfolio to buy and sell businesses. Relentless cost-cutting prepared many of them for effective global competition. These underlying strengths allowed the creation of much shareholder value from selective divestments and acquisitions.

Conversely, the plight of Philips stems largely from inescapable exposure of its core businesses to ruthless Asian competition and to starting positions that had eroded over time with little portfolio redeployment and insufficient selectivity.

2. Industry consolidation. Business selection logic can also start with industry consolidation. Fragmentation can lead to weak general management skills, under investment in technologies, and an inability to capture economies of scale that may be invisible to the incumbents. Industry consolidation can also build barriers to entry unavailable to a fragmented one. Hence, a portfolio of assets can be assembled (often through acquisitions), with the goal to rationalize an industry and extract value from the process of industry consolidation. This approach was common in many industries during the 1960s and 1970s (e.g. elevators, cement, and retailing in the USA and in the UK) and is becoming common again (e.g. financial services, entertainment, telecom, airlines). ABB's strategy of consolidating the electrical power business is a good example of this perspective on portfolio consolidation. Coming's very successful entry into medical diagnostics labs was predicated on a similar logic.
3. Parenting similarities. Creating value from an unrelated corporate portfolio is easier when the businesses share common strategic and managerial characteristics. For example, Hanson Trust has always been described as an unrelated diversifier with businesses as diverse as brick making, coal, Jacuzzis, and chemicals. Hanson managers, though, believed that their businesses had common characteristics and required similar management skills. Hanson's criteria for fit into their portfolio were: basic businesses providing good, essential products, not high tech, not people-intensive business, good management at the operating level, reasonable asset backing, stable rate of change, good cash flow, and discrete businesses (Haspeslagh and Taubmann 1992). This view is based on what Goid and Campbell (1994) have called the parenting advantage: the capacity of corporate management to add value to the business units based on a common set of corporate capabilities. Interestingly, though, Lord Hanson was not sufficiently convinced that Hanson's advantage was corporate rather than individual and would survive the death of his partner and his own imminent retirement. In early 1996 he announced the split of Hanson Trust into four separate companies in different sectors.
4. Core competencies. Considering relatedness from the standpoint of core competencies (Prahalad and Hamel 1990) yields a totally different view from that of parenting advantage. A very diversified portfolio such as Cargill's (commoditytrading,

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meat, chicken and pork processing, salt, fertilizer, petroleum trading, mini steel mills, financial services, citric acid, orange juice, animal feeds, and seeds) would be classified as unrelated. But top managers inside the firm may think and act otherwise, as reported by Cargill's CEO Whitney MacMillan:

Experience in the handling of bulk commodities, knowledge of trading, processing expertise, international understanding, risk management; these are the attributes of Cargill that underpin all our businesses. These core competencies represent the collective learning and judgement of all our 125 years of experience in all our businesses. They have been built over the years as the result of an unending process of refinement and improvement. They help hold us together and give us a sense of unity of purpose that would otherwise be difficult to define. They drive our development of new business opportunities and shape our ability to respond to future challenges.

What is the largest risk facing a multi-product line, multi-geography multi-cultural, multi-lingual, multi-national corporation in maintaining core competencies and developing new ones? In my opinion, the largest threat is in our own organisational

insularity. We must guard against the trap of becoming so locked into being diverse lines of business and different geographies that we lose the ability to leverage our resources and expertise to their full potential.

Relatedness, in Cargill, for example, is not based on product-market configuration, nor technology similarities, but on shared competencies and knowledge assets. Different businesses within Cargill demand different parenting skills from the parent, in contrast to Hanson's logic, but all share a common set of core competencies. Cargill is not alone in taking this approach. Many other seemingly diversified firms see competence logic for their portfolios. 3M, Canon, NEC, Sony, P&G, and ABB are some examples.

5. Interbusiness linkages. In some portfolios, managing the interlinkages provides value. For example, the distribution efficiencies and the clout that P&G has with retailers is different from what any one of its businesses can command. But this value would not be realized if its businesses independently negotiated terms with retailers such as Wal-Mart. Similarly, ABB has major contracts in emerging economies such as China or India that require the involvement of many of its different businesses, and GE adds the strength of its financial service operations to support deals by its other businesses. P&G, ABB, and GE have to manage their businesses differently from Hanson. Hanson would consciously ignore benefits from such coordination and prefer the accountability to performance that their system provides. Hanson made no pretence of constructing synergies between his acquisitions, as illustrated by the operation of two of his subsidiaries, Imperial Tobacco Limited and Elizabeth Shaw (a chocolate firm). Both were based in Bristol, England, and delivered goods to newsagents and corner shops throughout the United Kingdom. Yet Hanson was opposed to any sharing of distribution resources on the ground that any economies of scale would likely be outweighed by 'the general sloppiness that would result if each company

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thought that distribution was the other's problem' (Haspeslagh and Taubmann 1992).

6. Complex strategic integration. Core competencies not only create the basis for value creation, but also aid the identification of new business opportunities which draw on competencies from multiple units (Burgelman and Doz 1997). The goal here is to create a portfolio that is capable of internally generating new businesses; yielding a capacity for self-revitalization. Hewlett-Packard with a clear focus on creating businesses at the intersection of Measurement, Computing, and Communications (its so-called MC2 strategy) represents one such portfolio. In 1994, more than 60 per cent of the sales of Hewlett-Packard came from businesses that did not exist in 1990. Nearly all the growth came from internal development of new products and new businesses. Value creation in such a portfolio is as much about growth and proactively reinventing the business portfolio based on core competencies as about rationalizing existing assets or defending existing businesses.

Our quick review of various types of portfolio configuration logics suggests that relatedness, contrary to the view in the literature, may not be an economic given but remain very dependent on the cognitive framework of top managers (Prahalad and Bettis 1986; Stimpert and Duhaime 1997).

Identifying the appropriate configuration of the portfolio, in contrast to deciding whether a portfolio is related or unrelated based on simple, universal tests, is a top management task. But how to assess a portfolio logic? Once one escapes the simplifying assumption of objective relatedness to accept the view that relatedness is in the eyes of the beholders, the burden of creating a robust logic is put squarely back on the shoulders of management.

18.2.3 Portfolio Logic

Creating the portfolio configuration logic is, therefore, a vital top management task. It involves asking the following questions:

1. What is the value of a bundle of assets and businesses as compared to the value of these businesses as independent units? The portfolio must benefit business units, and the business units must add value to the portfolio. The relatedness among the businesses in the portfolio may not be obvious at a first cut analysis. Often, the most valuable dimensions of relatedness need to be discovered. Top managers must be able to articulate the value of relatedness or the reason for a business to belong to the portfolio.
2. Which underlying value creation logics are at play (from the selection of well-positioned businesses to the discovery of new opportunities through complex strategic integration)? While some CEOs, such as Lord Hanson, focus on one logic, others, such as Percy Barnevik at ABB, attempt to develop a composite

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value creation logic. How good is the match between the portfolio of assets and the value creation logic being applied?

The portfolio logic will force two kinds of questions: (a) what kinds of assets do I want and (b) what connections between these do I need?

It is obvious that these questions are interrelated. The logic of the portfolio is a result of the history of the company (the cards that one is dealt) and the creative interpretation of opportunities by the top management of the firm (how well one can play the hand).

18.3 The Value Creation Logic: Top Management's Theory of Relatedness

Implicit in the choice of portfolio configuration, if not explicitly articulated by the CEO, are assumptions about how the firm will compete and create value over and beyond what separate businesses could achieve. Value creation logic is about understanding the business model, resource intensity, risks, and the critical competencies needed for success as a diversified corporation. To clarify the point, let us consider some explicit statements of the value creation logic.

18.3.1 Hanson's Value Creation Logic

Each one of Hanson Trust's businesses was strategically defensible and differentiated. Each commanded significant market share. These businesses were unlikely to attract new competitors or be subject to radical technological change. Under these circumstances, good general management disciplines, budgeting, controls, incentives, autonomy, and low overheads can provide opportunities for extraordinary value creation. From the perspective of a business, the advantage of belonging to the Hanson portfolio is derived from the general management disciplines provided (imposed) by the parent. From the perspective of the group, it is having strategically defensible businesses that enjoy monopoly types of advantage. Further, high quality managerial skills might not be available to the businesses as stand-alone entities in some mature industries. In sum, Hanson is able to attract and retain better managers than 'member' companies could on their own and to give them better management tools.

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18.3.2 GE's Value Creation Logic

To an extent General Electric follows a similar logic, but on a global scale. GE is in a wide variety of businesses—from lighting to financial services. The original portfolio logic was business selection, the simplest in our categories of portfolio relatedness. GE sold businesses where the number 1 or 2 criteria could not be met, such as consumer electronics, and built up its activities where it could, such as in medical imaging. The portfolio restructuring at GE, during Jack Welch's regime, was accomplished by divestment of more than \$7 billion worth of businesses and acquisition of more than \$17 billion. More than 52 per cent of GE today is in financial services. Second, the GE management process imposed discipline on the various businesses and improved their performance. Third, and this is where it increasingly departs from the value creation logic of Hanson and other conglomerates, GE is able to selectively move to managing inter-business linkages, for instance using its finance arm to lease large systems such as jet engines, power plants, or medical systems.

GE, though, was unable to move to create new opportunities. In emerging businesses such as 'factory automation', being number 1 or 2 had no meaning. When GE invested in it, the factory automation industry was just emerging, boundaries of businesses were unclear and GE faced non-traditional competitors. In this business, GE went for scale, as in other businesses. A series of acquisitions were made, and after some experimentation, GE quit the business. GE's logic of number 1 and 2 applies only to maturer businesses with reasonably clear boundaries. Being number 1 in the multimedia industry, at today's stage of evolution, for example, means very little, so did it in factory automation ten years ago.

While the value creation logic at GE is clear (and is now blindly adopted by many CEOs as a model for their own company), it is important to recognize that Welch started with unique endowments. Not all firms, nor CEOs, do. For instance, the value creation logic at Motorola is quite different. Since it never enjoyed such a rich endowment of businesses as did Welch at GE, nor businesses which could be sheltered from Japanese and European competition, its value creation logic is based on quality ('6 sigma'); continuous and radical improvements ('10 X'); positioning oneself at the beginning of the wave of growth in emerging businesses such as (successively) semiconductors, mobile and cellular communication, and in emerging markets such as China, the ASEAN countries, and India; and integrating technologies and markets into mutually supportive patterns. Implicit in Motorola's value creation logic is the capacity to bet on new products, scale up, grow rapidly, price aggressively, be global, and obsolete oneself. This is a very different logic from GE's.

The value creation logic a top management team can feasibly follow is thus the result not just of the theory of relatedness adopted, but also of other factors, such as the starting portfolio of the firm, the compatibility of different parts of the portfolio with the value creation logic, and the administrative and leadership skills in the company. Mature businesses are compatible with GE's value creation logic,

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emerging ones perhaps not; limited endowments forced Motorola to design a value creation logic to build strength in emerging businesses and markets. Motorola's logic, though, is strategically and organizationally very demanding, in the sense that it attempts to maximize value creation from limited assets in a competitively exposed situation.

18.4 Value Creation Logic: Dynamic Evolution

In order to co-select their portfolio configuration and their value creation logic, particularly the most demanding ones, managers must develop a point of view about likely patterns of industry evolution. Intellectual leadership of an industry is a critical ingredient in developing new businesses (Hamel and Prahalad 1994). Examples of inventing new value creation models, even in old established industries, for single businesses are numerous. Consider the following:

- Swatch took leadership in the wristwatch business by bringing high fashion, European design, excellence, and low cost in manufacturing and technology, and continuous product development to an industry where the Swiss had lost leadership. It is the marriage of high fashion with high technology; fashion and efficiency that represents a new model of value creation. Seiko and Citizen did understand and optimize on efficiencies—their model of value creation—but did not see the industry ready for fashion à la Swatch.
- Nike has brought advertisement intensity, design, advanced technology, market segmentation, global logistics, to an old, traditional industry—sports shoes.
- Levi is experimenting with mass customization, with uniquely 'fitted' jeans, 'just for you', based on new information technology and new manufacturing and logistics capability.
- Benetton, Charles Schwab, Wal-Mart, CNN, Southwest Airlines, and British Airways are all examples of firms who invented a new value creation logic for a business, and the Internet has created a host of others.

18.4.1 Industry Foresight

How does one know that the new logic is appropriate? In order to discover a new value creation model, one needs to develop industry foresight (a unique point of

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view regarding the patterns of industry evolution) through a thoughtful and imaginative assessment of underlying market drivers, trends, and critical discontinuities. Given a perspective, managers need to validate it through a process of market-based experiments at low cost (Hamel and Prahalad 1994). Ultimately, it is the market that validates a new model. Top managers must ensure that the industry foresight is based on deep understanding of the forces of change, rather than their stylistic preferences. This calls for a process of discovery inside the firm—one that involves a large number of people at all levels in the organization such that a wide variety of inputs are gathered and synthesized (Hamel 1996). The goal of this process is not one of analysis but of creating a new synthesis; identifying new opportunities that are often 'invisible' to industry incumbents. Developing such a new value creation logic can be compared to disciplined imagination (Szulanski and Doz 1995).

Moving from individual businesses to related, but diverse, competencies and markets, adds a further level of complexity, and, as we suggested, few firms seem to have a clear interbusiness value creation logic: HP, Motorola, and Kodak may be exceptions. Part of the difficulty stems from how tightly the portfolio logic and the value creation logic are intertwined. Discovering new opportunities and innovative business model(s) impacts the portfolio logic. On the other hand, a decision on the portfolio suggests implicit value creation logic. Hanson and Hewlett-Packard are distinct both in their portfolio, their opportunity horizon, and therefore, their value creation logic. Most top managers do not deal with this interrelationship explicitly. While the portfolio is frequently reconfigured, the underlying value creation logic is not explicitly re-examined. Identifying a set of business opportunities based on an existing portfolio of core competencies and identifying a set of core competencies that will be needed to manage a desired portfolio of businesses in the future is a creative task. Different managers can discover new patterns of relationships, based on competency assessment, across existing businesses in their portfolio as well as new businesses that could be added to it (Burgelman and Doz 1997).

18.4.2 Linking Portfolio and Governance

Once made explicit, the value creation logic becomes the intellectual link between the actual business portfolio and the governance of the firm. For example, in a portfolio where value is created by continuous development of new products and businesses drawing on competencies and expertise dispersed between existing business units, as in Motorola, Kodak, or HP, it is important to manage interbusiness unit relationships, as well as to continuously reconfigure resources to address emerging opportunities (Galunic and Rodan 1997). Stability in the remits of each business unit is not a virtue here. In fact, it may become a limiting factor (Galunic

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and Eisenhardt 1996). In contrast, the business units in Hanson Trust could have highly stable remits. Hanson's value creation logic was based on each business operating as a stand-alone entity focusing on achieving the lowest cost position. The extent and form of encouragement and incentives to interunit cooperation are also a function of the value creation logic, and so is the balance between strategies that are guided by the centre and ones that are autonomously developed by the businesses.

18.5 Value Creation Logic: Articulating the Reason for the Portfolio

Articulating the link between portfolio configuration and value creation logic is not easy for CEOs. First of all, the two are often treated separately in their minds. While CEOs are willing to discuss the logic for the portfolio very explicitly, they do not often articulate a model of value creation. The value creation logic is either ignored or remains implicit. GE, Hanson, and Motorola are exceptions. By considering the value creation logic managers can develop a framework for assessing all the decisions they make. They can also discover new and more complex ways of creating value. Ways that become harder and harder for others to copy.

Second, generic logics of value creation are widely accepted by managers, causing them to avoid taking a strategic look at their portfolios. Restructuring and reengineering are the most popular generic value creation logics. They provide a denominator driven, cost reduction model. Cycle time reduction is another. While attention to cost, productivity, and cycle time are crucial, these focus on efficiencies. Wealth creation is also about growth and new business development the numerator. Internationalization (acquisition of similar businesses in other countries) is a generic logic that focuses on the numerator. Backward or forward integration is another. Diversification used to be a third until its failings were exposed in the 1980s. These generic logics are not wrong, but they often discourage managers from thinking more deeply and hence discovering logics that create more value.

Third, the portfolios of firms are not always amenable to a coherent value creation logic. Consider Kodak. Kay Whitmore, Kodak's CEO in the early 1990s, had struggled to identify and validate a portfolio logic, but some of his assumptions, such as the advantage of being active both in chemicals and pharmaceuticals, were questioned from the start. Kodak's portfolio, in 1993, consisted of chemical

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imaging (film and paper), copiers, printers, medical reagents, over-the-counter and proprietary drugs, bulk chemicals, and cleaners. Under the new CEO, George Fisher, the portfolio has been pruned to an Imaging Business (chemical and electronic) which can capitalize on linkages and new opportunities. Other businesses have been divested—Eastman Chemicals, Sterling Drugs, and Lysol Cleaners. The value creation logic in fast-moving imaging businesses is certainly different from that in bulk chemicals!

Fourth, the process of creating a value creation logic is such an individual and time dependent process, mistakes can and often do happen. For example, Daimler Benz diversified all through the 1980s due to the conviction of Edzard Reuter and his team that they would become a 'one stop shop' for all communication needs of society—be it motor, air, or rail transportation or telecommunications. Similar visions of one stop shopping for financial services or multimedia products abound. However, consumers may want to have a choice and not be constrained by choices made for them by one vendor. Daimler Benz may have assembled, via a series of acquisitions, all the skills needed to be a 'one stop shop for transportation' but the customers may not wish to give it so much power. A reality check, therefore, is in order. Reuter's successor, Jürgen Shrempf, quickly started shedding businesses (Fokker and Dornier in commuter planes, most of AEG's businesses in electronics) and putting others into joint ventures with partners for whom they are more strategic (rail transportation with ABB, missiles and satellites with Matra), perhaps as a prelude to divestment. In contrast to Daimler Benz under Reuter, other companies may suffer from CEOs whose value creation logic is too tame, putting too much emphasis on sub-unit autonomy, but in so doing leaving too many opportunities where interunit linkages are unexploited. AT&T's travails in international development and its ultimate demerger into three companies may be an example of underachievement by design: the portfolio—telecoms and computers—called for a logic of integration, but the governance choice emphasized business unit autonomy.

Fifth, value creation logics become obsolete, and CEOs do not always notice it. Intel had become much more successful at microprocessors than at memories before its CEO noticed (Burgelman 1994; Burgelman and Grove 1996). In the airline industry, British Airways, among all European airlines, noted the importance of information technology and adopted yield management innovations much earlier than its competitors who remained wedded to a technical (e.g. Lufthansa) or political (e.g. Air France) logic of value creation (Lehrer 1997). Swissair became an outstandingly successful caterer before its top management became aware of how the way it created value had changed. Conversely, in the early 1990s, Gould's CEO decided to redeploy his company from traditional automotive components to fastgrowing electronic ones, a laudable undertaking but one that ignored the deep differences between the two businesses and led Gould into deep trouble, bankruptcy and an emergency takeover by a Japanese company. Product types may evolve

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incrementally in ways that are hard to notice at first (Intel), the business may not ostensibly change but the foundational knowledge key to value creation may (airlines), the centre of gravity of a firm's activities may move incrementally (Swissair), or management teams may wrongly emphasize continuity and miss out on discontinuities (Gould).

Last but not least, value creation logics and portfolio choices are almost never independent exercises performed by the CEO alone. They emerge at least partly from the strategy process and the interplay of sub-unit and corporate perspectives. In that sense tomorrow's value

creation logic results from yesterday's internal governance process, seldom an ideal situation! In many companies vested interests and concerns about centralization and corporate vs. sub-unit roles cloud the debate and prevent incumbent CEOs from discovering or implementing new value creation logics. The CEO is hostage of the existing governance logic.

18.6 Internal Governance Logic: Value Creation in Action

Internal governance structures define the parts and their relationships to the whole. How are the parts defined? How do they relate to corporate management as well as to each other? How is the governance logic conditioned by the portfolio and value creation logic? These are some of the critical questions that CEOs face. An internal governance process that is inappropriate to the value creation logic will result in the firm not realizing the inherent potential of the portfolio.

We believe that a systematic approach to understanding the internal governance logic is a necessity. Such a logic is based on four building blocks:

- (1) structural clarity based on a determination of basic administrative units into which the firm is divided;
- (2) administrative processes that allow for dialogue across units, enforcement of accountability, measurement, and consolidation of performance;
- (3) basic premisses or key assumptions about the nature and quality of interactions between the building blocks of the company;
- (4) values, beliefs, and behaviours that all employees are expected to understand and conform to.

We will examine each one of these below.

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18.6.1 Structural Clarity

Irrespective of the portfolio configuration of the firm, a large company has to disaggregate itself into smaller administrative units for management. It is also important to note that one needs to manage product and business areas, functional expertise, and geographies. In many situations, programme or project management can also be a unit of disaggregation. But at least in all large firms, there is a need for product, geography, and functional building blocks. (We have deliberately excluded from this analysis the need for managing conceptual overlays such as core competencies. We focus only on the three basic dimensions of structure—product, geography, and function).

In most firms, the debate is not about the need for three dimensions, but about the relative roles of the three dimensions, and which to pick to structure subunits, and along which to manage interactions between units. The issue of matrix organizations (the tensions over relative influence of the three dimensions and the pathologies accompanying unresolved conflicts) are sufficiently well documented not to deserve special attention here (Davis and Lawrence 1977; Prahalad and Doz 1987; Ghoshal and Bartlett 1990).

Choices about what units to have revolved around three issues: How small or big should a unit be? Should each administrative unit have the complete set of resources it needs? And finally, how self-contained should its mission be?

Some companies have rather deliberately broken themselves up into many small units to set up an internal selection environment, either among existing activities (part of Bamevik's motive in choosing ABB's decentralized organization) or among new growth initiatives proposed by individual managers (e.g. Johnson & Johnson, 3M, Matsushita). While a firm is going through a process of rationalization and selection, disaggregating the firm into small, self-contained units can make sense. It provides a focus and clear accountability for cost reduction. In other words the value creation logic of portfolio selection is consistent with decentralization into small units. It is less consistent with a logic built on linkages and core competencies. ABB, for instance, is now backing out of its extreme decentralization. And obviously, where critical decisions are few but big as in chemicals or aerospace, an internal selection process is hardly appropriate. Aerospace groups, which may be relatively diversified, but often have only a dozen key product programmes, cannot be decentralized in the same way as 3M with its sixty thousand products.

Yet, it is important to recognize that no resource allocation process can enable top managers to cope with choices in any substantive depth if the number of subunits exceeds 30 to 45, a cognitive limit which CEOs of many large firms are intuitively coming to terms with. This does not mean that senior managers responsible for sectors or large units cannot allocate resources to smaller business units within their sectors—a multi-stage, multilevel resource allocation process. Further, intermediate level managers can encourage business units to collaborate with others

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for growth by identifying opportunities that transcend their individual business scope but may be beneficial to each. Very small business units can also lead to under investment in critical technologies and in emerging markets. So while firms such as ABB can describe their approach to decentralization as managing a very large number of entrepreneurial units, the demands of internal growth and the increasing

pressure for resource shifts across major businesses and geographies in most firms will require top managers to deal with fewer and larger aggregations. This calls for the maintenance, or resetting of intermediate levels of organizational aggregation. In other words, the portfolio and value creation logic will determine and limit the choices one can make in organization.

In a decentralized diversified company, managers responsible for an administrative unit (be it an SBU or a territory) will argue for a self-contained mission and a complete complement of resources. This makes them operate as if they were independent units and selectively draw on corporate services only as they deem fit. This approach to governance may be fine for Hanson (given its portfolio and value creation logic) but is it also acceptable for HP or Kodak? Are there too many opportunities that cut across any given configuration of administrative unit lines (say, a large project that cuts across several SBUs, or global account management that crosses several countries) such that any one-time determination of the boundaries and missions of SBUs (and national or regional organizations) will result in too many missed opportunities? The organization may need semi-permeable membranes separating the administrative units rather than brick walls. But then what is the meaning of a unit? a temporary project? a focal point for concentrating efforts and allocating resources? While R&D organizations have for long operated in that way, can the approach be generalized to a whole corporation?

18.6.2 Administrative Processes

Significant research attention has been bestowed on the administrative processes, such as budgeting, planning, performance appraisal, measurements, incentives and rewards, and the supporting technical infrastructure of communication, information, and control systems. Without trying to review the abundant management control literature nor relate it to our argument in this paper, let us just argue that the nature of dialogue between administrative units and corporate management needs to be contingent on the value creation logic adopted by the CEO. The administrative and the technical infrastructure provides a formal basis and framework for dialogue within the firm such as plans for the year, budgets for the quarter, performance expectations, or common design disciplines (based on common CAD tools). The design of the infrastructures supporting these processes and the way they are used can have significant influence on the nature of the dialogue as well as

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the ability to build a corporate architecture that adds value. The dialogue can be arm's length as in the case of Hanson. White, one of the Vice Chairmen of Hanson, had this to say: 'I don't even know all the presidents of our companies. I know their names, but I have never been to any of our plants. I've never visited our headquarters in Iselin, New Jersey, either. There is no need for me' (Haspeslagh and Taubmann 1992). In this approach to governance, the dialogue is primarily through the administrative systems and hence the need for strong budgeting controls and a strong management team at the business units. There is an assumption of 'few surprises'—possible in slow-moving, mature businesses. Conversely, to take an opposite example, the approach at Canon is best described as 'heart-to-heart, mind-to-mind' communication. Consensus decision-making, deep personal knowledge of the businesses and markets by all levels is a prerequisite at Canon. The administrative control process can act as the backbone but not a substitute for intense and frequent personal communications across levels of management. In either case, Hanson Plc or Canon, Inc., the need for a strong and appropriate administrative and technical infrastructure for facilitating the dialogue is critical. However, the nature and the complexity of the administrative infrastructure, and how much of the sub-unit—corporate dialogue it encompasses, will be different depending on the nature of the portfolio and value creation logics.

While structural clarity and administrative processes provide the anatomy and the physiology of the company, the psychology of the company—how it acts within the broad framework of structure—is determined by the basic premisses and the values, beliefs, and behaviours.

18.6.3 Basic Premises

What we call basic premisses within the company are key expectations imposed by the CEO and top managers. For example, in GE, after the initial decentralization, Jack Welch has built a basic premiss about 'boundaryless' behaviour to share information and best practices across boundaries, hierarchical levels, countries, and businesses within the company. In this case the premiss that a large firm represents a laboratory of good practices and that there is value in sharing these across boundaries transcends expectations of full autonomy created by the structural and administrative processes. In Hanson, another decentralized firm, conversely, the premiss of autonomy of the business units implies that they need not talk to each other. The boundaries are sacrosanct. In HP and 3M, for example, there is an expectation of continuous business renewal measured as a percentage of sales from new businesses. This premiss imposes an expectation of growth, but more importantly, an expectation of internal growth. Line managers, in these firms, have an obligation to leverage their resources in terms of both efficiency and innovation.

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At Motorola, 6 sigma, as a premiss, suggests that they will strive for perfection in all they do and in all their relationships—including with their suppliers. Ford 2000 is an expectation that the European and North American operations will collaborate. This is a dramatic change in expectations for Ford from its ninety-year history of working separately across the Atlantic. Ford 2000 represents structural and administrative changes, but the big change is in the expectation of a qualitatively different dialogue across building blocks, imposed on the organization by the new CEO, Alex Trottman. For a company that historically was very US-oriented, AT&T's premiss of 'anytime, anywhere' suggests a globalization intent. The new premiss at Philips is 'Let's make things better'. It is about 'taking the next step and making whatever it is you are making, better.... So, when people say 'let's make things better', they speak from the head, and from the heart. And while we've long been known for making better things, perhaps from now on we'll be known for making things better'.

The goal for a CEO of setting and communicating basic premisses in an organization is to indicate the nature and quality of interactions between structural building blocks as well as the limits to the use of administrative processes. It provides a way to interpret and temper the behavioural signals given by the structure and the administrative process. The structure may provide clarity to boundaries, but it should not restrict the capacity of an organization to create wealth. The premisses provide an expectation of quality of interactions (that cannot be described in structural terms nor fully encompassed in measurement and control systems) among the building blocks.

Each basic premiss has to be accepted by the whole company to be useful. It is often a CEO-sponsored initiative to implant them in the whole organization. It is a statement of how the CEO expects to create value and differentiate his or her firm from others who may be similarly organized. Basic premisses force the organization to go beyond a sterile interpretation of relationships in the firm based exclusively on the formal structure and administrative processes. The roles and responsibilities of managers must be creative and evolving to incorporate adaptive behaviour. This expectation leads to a focus on values and behaviours.

18.6.4 Values and Behaviours

While structure and administrative processes provide the basic framework for organizing and monitoring the resources of the company, behaviours are critical to create an adaptive learning environment that allows for creative combination of resources to address new opportunities.

Two preconditions force the need for clearly understood values and behaviours. First, in a volatile industry environment, no structure can predetermine the nature

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of adjustments that need to be made. Managers must go beyond predefined roles using matrices as mindset not a structure (Ghoshal and Bartlett 1990). Second, as CEOs adopt more demanding portfolio logics, there is a growing need to constantly discover new opportunities which allow managers to leverage competencies creatively. Constant reconfiguration of competencies to address new opportunities will force frequent changes in structure. Business unit boundaries may have to be redrawn. Given such a precondition for leverage and value creation, values and norms of behaviour become the anchor of stability and clarity, more than the formal structure. In an era of constant change in competitors, products, prices, customers, and resources, organizations need anchors to provide stability and comfort. Deeply held values and behaviours are the pillars of such stability.

There is a shifting emphasis in most firms from formal structures and administrative processes, critical as they are, to basic premisses; and values and behaviours. Flexibility in resource reconfiguration, ability to learn and adapt continuously, to innovate and address new market opportunities—all at the heart of value creation—requires emphasis on the 'values and processes'. However, internal governance is about seeking the right harmony between the four aspects described in this section.

18.7 The Search for Harmony

The CEO and top management are at the heart of managing this harmony. The CEO is always plagued with issues such as: 'How much do I rely on structure? on values and behaviours? How do I convince the organization that these values are critical and that I expect them to be followed in their daily work? What personal example should I set? Do I penalize managers for not supporting and living these values, even if their performance exceeds budgets? How do I communicate standards of behaviour as a prerequisite for standards of performance?' These questions are at the heart of managing apparent contradictions such as the need for short-term performance and longer-term creativity and growth. Contradictions are about predictability of performance and, at the same time, promoting change, about providing clarity to the existing configuration of business opportunities (existing SBU structure) and, at the same time, creating new 'white space' opportunities, about managing within a structure and creating opportunities that lie outside the existing structure.

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The key to internal governance is understanding the implications of the portfolio configuration and value creation logics and using the four elements of governance to continually harmonize the complex and conflicting demands. The search is not for a static but a dynamic and evolving harmony. The CEO must search for both a harmony between the three logics as well as a harmony between the four elements of the internal governance process.

In searching for harmony, the CEO may reach different stable configurations of interactions between the three logics, or strive for a dynamic evolutionary capability. Hanson Trust constituted a harmonious but static relationship between the portfolio composition logic, the value-creating theory and the internal governance process selected by Lord Hanson. Hewlett-Packard, or Canon, on the other hand, constitutes evolving configurations, where the harmonious relationship is around change processes. Where Hanson put emphasis on formal structures and processes, Canon and HP emphasize values and norms and basic premisses and principles. HP's or Canon's value creation logics are of distributed entrepreneurship and evolving business portfolios, built around core competencies. While they maximize adaptation, they may not optimize the relationships between the three logics at any point in time.

18.7.1 Maintaining Harmony

Maintaining strategic harmony is a demanding action agenda for the CEOs, whose traditional approaches to internal governance were too often based on one of two approaches: in one, the stylistic preferences of the CEO drive the process. The CEO's preferred style, control driven, details oriented (e.g. Harold Geneen at ITT) or hands off, decentralized ('if you meet the budget, you are out of trouble') prevails irrespective of the portfolio and value creation logics. In the other, tools are sometimes mistaken for personal leadership, as an increasingly formal approach to internal governance is fuelled by the ground swell of enthusiasm for decentralization. Consulting firms promote it. The desire to measure the contribution of a business unit by economic value analysis (EVA) makes decentralization a prerequisite. CEOs seem to like it as well. Is disaggregating a firm into stand-alone business units (the result of decentralization in most firms as well as the necessity to apply EVA methodology) necessarily appropriate in all cases? We believe not. We believe that it is dysfunctional to endow governance principles such as SBUs, matrix organization, teams, EVA, decentralization or any other, with quasi-religious sanctity. They all must be discussed, evaluated, and adopted, or not, in the context of a portfolio and value creation logic.

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18.8 The Ceos' Intervention Capabilities: The Dilemmas

In the process of searching for harmony between the three logics, the CEO must concern himself/herself with the bandwidth of intervention modes available to him/her. A CEO has at his/her disposal all the internal governance tools but must recognize that there are no universal solutions. No single package is useful in all cases, as it is likely to impose a dominant logic as a straitjacket on all businesses (Prahalad and Bettis 1986). Neither can governance, in a diversified firm, be totally geared to the unique requirements of single businesses. That would be impossible to manage. Neither can the process be idiosyncratic and bound by the stylistic preferences or personality of the CEO. It must be geared to the needs of the portfolio and the value creation logic, and encompass a range of differentiated intervention models.

Increasing the repertoire of intervention modes suggests that a CEO must start with a framework to define internal governance. It is useful to start with the following questions to develop such a framework:

1. What in the internal governance process is non-negotiable and mandatory? There may be three kinds of issues that are mandatory. First, applying the formal 'rules of the game'. In all the firms we know, accounting procedures are nonnegotiable. But, only in some, the technical architecture, often a critical precondition for sharing competencies and components across business units, is a non-negotiable. Secondly, a few achievements or performance standards are non-negotiable. In most firms, meeting budgets is one such non-negotiable. Performing better than one's cost of capital is another. Thirdly, where you put your efforts is becoming non-negotiable. For example, in some firms where CEOs have thought deeply about values, they are non-negotiable. A deep breach of value, even when achieving outstanding performance, is not acceptable. In some, commitments to customers and total quality are non-negotiable.
2. What aspects of the internal governance can be unique and tailor-made for a specific business unit, function, or a geography? For example, compensation for attracting the right talent for a specific business can be a local decision.
3. What is the role of perceived fairness in the system? It is very important that all employees see the system as being inherently fair. Building employee commitment, loyalty, and excitement requires a deep commitment to fairness. But fairness is as much perception as reality. In allowing for uniqueness, a CEO must worry about it being interpreted as unfair practice. But fairness is not the same as uniformity of systems and procedures (Kim and Mauborgne 1993). Uniformity can easily be seen as lack of fairness and courage, for instance when all units, no matter how successful, are required to cut investment.

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4. How can mixed signals in the organization be avoided? In the desire to finetune the system, one can easily create multiple interpretations of the expectations imposed on the organization by top managers. The more a CEO uses precedents for establishing shared premisses the greater the risk of mixed signals. For example, a demand for growth and at the same time pressure for profit improvement can be seen as a mixed (up!) signal if it is not properly explained to the organization. Mixed signals can paralyse an organization. However, creating the right level of tension and anticipation cannot be achieved without complex signals. The right balance is the key to high performance.
5. What aspects of the mix of governance mechanisms have the most impact? Which have the most associated costs? How do we understand the 'invisible and hidden costs'? For example, what are the consequences of re-engineering, downsizing, and multiple restructuring on the motivation of employees?
6. What is the level of due process built into the governance mix? Do people have a voice? How personally expensive is it for people to have their voice heard? Does the system provide for fair treatment of employees at all levels?
7. What is the balance between the investment in continuity and stability of the enterprise and the investment in change and flexibility? Continuity and stability to the team and processes within the firm dramatically reduce the costs of transactions as individuals start to work with each other, establish patterns of interactions, develop trust, and accumulate intellectual assets. Continuity is a critical factor for knowledge accumulation and exploitation. On the other hand, overemphasis on stability in the context of dramatic changes in the external environment will create paralysis. Change and flexibility, which alter the pattern of interactions, work flow, and skill mix in the organization are critical for survival.
8. Management is not about providing a static efficiency but continuous capability development. Efficiency at a point in time is critical to a high performance system. However, the building of the next round of advantages, the next practice, the next layer of efficiency and advantage, is equally critical. Quality of harmony between the various logics is measured not just by how well they knit together at a given point in time but by the ability of the system to push the next round of capability development.

18.8.1 Harmony and Substantive Issues

In thinking about his/her role in harmonizing portfolio configuration, value creation logic, and governance process, the CEO must recognize the inherent difficulties. The issues outlined above are the critical dilemmas. In addition, CEOs have to deal with substantive issues. For example, a significant part of the wealth creation opportunity is centred around stretching the imagination of the organization

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and focusing it on aspirations that are outside the range of the current resources of the company (Hamel and Prahalad 1994). But stretch can become fear and anxiety if not properly managed. Stretch is very motivational if employees voluntarily commit to it because of their understanding of the rationale for it and turn imposed stretch into personal reach. Reach works if there is a compelling view of the future that is associated with it; if it provides personal meaning to every employee. On the other hand, if stretch is imposed administratively (as in budgets), it can lead to fear, anxiety, and dishonesty in the organization where managers stop being candid and start hiding slippage and sandbagging numbers. In some cases, an expectation of stretch targets by top management can create a sense of euphoria in the organization. Too much enthusiasm for growth, and change can also have the same effect as fear. Managers start feeding targets that are not grounded in reality. Hope is not a stretch target. Enthusiasm, like fear, can also create dishonesty in the organization. Reach is about commitment and not compliance, about voluntarism—giving the discretionary time, effort, and imagination on the part of the employee.

Similarly, a CEO in a large organization must strive to provide clarity to the tasks, values, performance expectations, and standards. The roles of various units must be clear and understood. This is the function of 'keeping the machine well oiled and reducing the frictional losses' in the system. However, clarity must coexist with a capacity for experimentation. Overemphasis on clarity can kill enthusiasm for experimentation. Experiments that are likely to change the way the system is currently managed and challenge the dominant logic are a very critical element of longerterm vitality in a large firm. CEOs must balance a commitment to the current system and at the same time provide support to the seeds that will challenge it.

Unless they are very careful, CEOs are likely to become too distant from the reality of the businesses that they are managing. A check on the calendar of a CEO can provide very useful hints on the distance that exists. Outside commitments, routine corporate reviews and corporate calendar, personal style and preferences, can leave very little time for in-depth understanding of the emerging opportunities—be it in the laboratories, in manufacturing, or in the changing mix of customers. Distance is a natural outcome of the job but staying informed of the key issues is a result of active management of one's time and of installing ad hoc processes that bypass and transcend the formal ones. The expectation is not that CEOs must be gluttons for detail but must have enough understanding of the emerging detail to extract a sense of the essence. For example, a CEO today must know what is happening in the information technology business to recognize the impacts it will have on distribution and retailing, customer interface, focused marketing, logistics, distance collaboration, the nature of dialogue between individuals, teams, and administrative units, and the cost structure of businesses. The goal is not to become an expert on the details of 'virtual reality' or large database construction techniques, but to recognize the implications of these to the businesses

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(value creation logic) and to the internal governance processes. The goal is for the CEO to listen to the arguments, suspend judgement, and recognize that he/she cannot and need not have a solution to all the problems that the organization faces. Many of the solutions evolve and the CEO must unburden himself/herself from the self-imposed (and sometimes culturally imposed) burden of 'knowing the answer' to all questions.

18.9 Ceo Effectiveness and Public Image

It is obvious that the CEOs must creatively manage the harmony of the interactions between the three logics. But harmony depends not just on analytical skills but also on the capacity to motivate and provide an emotional dimension to the company. Analytics and passion, clarity and experimentation, efficiency and innovation must all coexist. Ideally, CEOs must be able to constantly and creatively balance these factors.

18.9.1 CEOs' Limitations

The reality is that CEOs, like others, have limitations. We can identify two major sources of limitations. One widely recognized source of limitation is the background and the stylistic preferences (limitations) of the CEO. While many a CEO intellectually recognizes the impact his/her stylistic preferences have on the internal governance processes, few have the persistence to modify them (Kets de Vries and Miller 1984). The difficulty is in modifying behaviour patterns and managerial frames that one has grown up with. The search for an outside CEO is often triggered by an intuitive feel, on the part of directors, for the demands of a rapidly changing portfolio and value creation logics. These changes require a different internal governance logic. Boards come to the conclusion, often painfully, that nobody from the inside can break away from the ingrained managerial frames and styles fast enough. Employing an outsider becomes a way of dealing with the limitations of the incumbent CEO and his team. The changes in Alcatel, IBM, Kodak, Sears, K Mart, and American Express are just some examples of this process.

There is another, somewhat subtle, limitation to the effectiveness of a CEO in balancing the three logics. The public image of the CEO can both facilitate or limit

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his/her capacity for managing the quality of interactions between the three logics. The public image is built by either a conscious decision on the part of the CEO to use it to influence the organization (to cut through layers of bureaucracy and reach the rank and file with his/her message directly) or a public persona is created by the press, with or without the cooperation of the CEO. The public image of the CEO has the same characteristics as the public image of a politician. CEOs cannot ignore their public image that evolves over time—it can be an advantage as it sets expectations, but can also act as a limiting factor (Sutton and Galunic 1996).

18.9.2 CEOs' Public Image

The public image of the CEO is reflected in the organization. All employees have access to that image and interpret it. For example, employees at GE, based on the public image of their CEO Jack Welch ('Neutron Jack' as he was called in the press) can come to the conclusion that profits at any cost are a must; being a dominant player is a must (number 1 or 2), that outsourcing is acceptable, that lack of internal growth maybe tolerated, divestment of businesses is part of corporate strategy, and that the corporation is not committed to any single business, that there is no loyalty between employees and the firm, and the 'new social contract' is about assuring employability, not employment, and so on. Let us for the time being assume that this list is a by-product of the public image of the CEO—his statements to the press, the Harvard cases, the video tapes, and the book by Tichy and Sherman (1993), all publicly available material. Employees can learn a lot about what is valued in the company and what is the meaning of success. For example, whether there is value attached to protecting core competencies or keeping a technology edge, managing a small business with good profits but not a dominant market share, managers can learn to justify continuous profit increases in the face of no growth and/or cyclical businesses including in industries with excess capacity. There can be an increased awareness of what skills are lost as people are let go. Employees learn much about what aspects of management can be sacrificed to accomplish financial goals.

The public image of Bill Gates is growth, market dominance, establishing products as the industry standard, 'take no prisoners, winner take all', a wide scope of businesses, enormous technical and market foresight and imagination, brashness and irreverence—somewhat different from GE. Microsoft employees recognize that individual contributions are greatly valued; that their firm is constantly increasing the scope of what it does and challenging incumbents in major industries such as banking, education, by changing the dynamics of that

industry. (For example, Microsoft's failed attempt to acquire Intuit—of Quicken fame—was an attempt to enter the financial services business and pose a challenge not only to traditional banks but brokerage services as well.)

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The other side of the public image is one of weak management, indecision, unwillingness to change, protecting the past, not in touch with the realities of new competition—an image that the press had created for Gerard Worms at Suez. For example, it was felt that he could not find the appropriate balance between the portfolio of businesses he put together with new demands of governance. Given such a public image, are employees willing to commit to change in the absence of confidence in their CEO? Do they believe that radical changes will be supported and experiments allowed under his leadership? Do they feel that the CEO and top management know where they are going? (That was never in doubt in GE or Microsoft.) On top of these nagging doubts about the capacity of the CEO to lead and allow the organization to be innovative, questions of personal integrity can paralyse the system, as at Alcatel.

18.9.3 Attributes of Public Image

The public image of the CEO has many important attributes. For example:

1. It can build stockholder confidence. Welch (GE) and Goizueta (Coca Cola) have built impressive reputations as allies of stockholders and builders of market value. They may get there using different approaches but both have this reputation. On the other hand, Jordan (Westinghouse) does not. Does the public image (matched, over time by performance) increase market value of firms?
2. It can scare competitors. Being number 1 or 2, or as in the case of Bill Gates's approach to launching 'Windows 95' can give second thoughts to competitors. 'Do I want to take these guys on?'
3. It can inspire confidence in the company. The public image of the CEO can inspire confidence as in the case of Bob Galvin during the 1980s at Motorola and George Fisher at Motorola and at Kodak now, or of Percy Barnevik at ABB.

Public image for the CEO is a mixed blessing. Once a strong public persona is created, it is not easy for the CEO to provide a credible, conflicting message to the organization. The CEO becomes hostage of the image. How long do public images linger? Should we be thinking about public image as a 'brand franchise' with all its attendant benefits and limitations?

There are also very visible companies with very clear public images such as Hewlett-Packard, 3M, Marriott, Rubbermaid, and Motorola (now), but the public image of the CEO is not very clear or pronounced. Why is this so? We suggest that public image is sought and often given to CEOs who are involved in dramatic restructuring and re-engineering efforts (or those who run businesses with very dominant market shares). Such efforts provide for drama. On the other hand, neither HP nor Motorola nor 3M have been involved in major restructuring. They have not made big and dramatic takeover bids. Their growth has been

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internal. Their strategic change is based on a longer-term view of the industry, its evolution, and the role their organization will play in it. The reinventing of the company is an ongoing, intense, but 'low decibel', effort. Their change efforts are 'middle-out' efforts (efforts of middle-level managers). This process is akin to treating the firm as 'distributed intelligence' working within a shared, common strategic architecture, a much less visible process than the traditional strategizing at the top followed by restructuring of portfolio and organization.

18.9.4 Visibility: Low or High

While the low visibility CEO can have more degrees of freedom to communicate and manage the balance between the three logics within the firm, the high visibility CEO can use the public image as an amplifier to his message. The contemporary CEO has to ask the following questions:

1. What is the evolving public image (and the corresponding image among employees)? What is the consistency between my values, concerns, goals and the emerging public persona? What are the implications of a 'misfit' between the two? Can I afford to ignore the public image that may be emerging, its impact on the firm or on my abilities to manage?
2. Where do employees, customers, suppliers, investors take their cues from? What is the impact of a 'barrage' of publicity on the CEO as a person?
3. What degrees of flexibility do I want to preserve in challenging the organization to focus on different issues; for example, from a focus on restructuring to growth. This can become a problem, especially when the CEO has ten or more years in the job and must change the key message more than once (e.g. message at GE focusing more on soft issues since 1991).
4. When does the external (public) message gain more credibility than internal messages? Why does this happen?

18.10 Conclusion

The CEO has become critical in the wealth creation process. Simultaneously, employees at all levels have become significant contributors to the competitiveness of the firm. High quality leadership, it appears, is a prerequisite to enable empowered employees to function. The CEO has to take responsibility for creating the right environment. We believe that this process of creating the right environment

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consists of first developing harmony between the portfolio, value creation, and governance logics. It is an evolving, dynamic process. Secondly, we believe that there are inherent dilemmas in managing this delicate process. It demands a good sense of timing, sequencing, social and interpersonal and intercultural sensitivity. Stylistic preferences (limitations) must be understood. Finally, CEOs must ask themselves if they can avoid a public image or whether they can use it purposefully. They must also consider the implications of this image-creating process (voluntary and involuntary), and the image on sustained vitality and capacity for growth and wealth creation.

References

- Burgelman, R. A. (1994). 'Fading Memories: A Process Theory of Strategic Business Exit in Dynamic Environments'. *Administrative Science Quarterly*, 39/1 (Mar.): 24–56. [Link](#)
- and Doz, Y. L. (1997). 'Complex Strategic Integration in the Lean Multibusiness Corporation'. INSEAD Working Paper, 97/03/S.
- and Grove, A. (1996). 'Strategic Dissonance'. *California Management Review*, 38/2 (Winter): 8–28.
- Davis, S. M., and Lawrence, P. R. (1977). *Matrix*. Boston: Addison-Wesley.
- Dosi, G., Teece, D., and Winter, S. (1994). 'Understanding Corporate Coherence'. *Journal of Economic Behavior & Organization*, 23: 1–30. [Link](#)
- Doz, Y. L., and Chakravarthy, B. (1995). 'Managing Core Competence Dynamically'. Draft paper presented to the Strategic Management Society International Conference, Mexico City.
- Galunic, C., and Eisenhardt, K. M. (1996). 'The Evolution of Intracorporate Domains: Divisional Charter Losses in High-Technology, Multi-divisional Corporations'. *Organization Science*, 7/3: 255–82. [Link](#)
- and Rodan, S. (1997). 'Resource Combinations in the Firm: Knowledge Structures and the Potential for Schumpeterian Innovation'. INSEAD Working Paper, 97/75/OB.
- Ghoshal, S., and Bartlett, C. A. (1990). 'Matrix Management, Not a Structure, a Frame of Mind'. *Harvard Business Review*, July–Aug.: 138–45.
- Goold, M., and Campbell, A. (1994). 'How Corporate Parents Add Value to the Stand-Alone Performance of their Business'. *Business Strategy Review*, 5/4 (Winter): 33–56. [Link](#)
- Hamel, G. (1996). 'Strategy as Revolution'. *Harvard Business Review*, 74/4 (July–Aug.): 69–83.
- and Prahalad, C. K. (1989). 'Strategic Intent'. *Harvard Business Review*, 67/3: 63–76.
- — (1994). 'Competing for the Future'. *Harvard Business Review*, 72/4 (July–Aug.): 122–30.
- Haspeslagh, P., and Taubmann, C. (1992). *Hanson Plc*. INSEAD case study.
- Kets de Vries, M., and Miller, D. (1984). *The Neurotic Organization*. San Francisco: Jossey-Bass.
- Kim, W. C., and Mauborgne, R. (1993). 'Making Global Strategies Work'. *Sloan Management Review*, 34/3 (Spring): 11–27.

end p.562

Lehrer, M. (1997). 'Comparative Institutional Advantage in Corporate Governance and Managerial Hierarchies: The Case of European Airlines'. Ph.D. dissertation, INSEAD.

MacMillan, W. (1990). 'Cargill's Vision: A View to the Future'. An Address to Cargill's Senior Managers by Whitney MacMillan, Chairman and CEO (12 July).

Markides, C. C. (1995). 'Diversification, Restructuring and Economic Performance'. *Strategic Management Journal*, 16/2 (Feb.): 101–18. [Link](#)

Prahalad, C. K., and Bettis, R. A. (1986). 'The Dominant Logic: A New Linkage between Diversity and Performance'. *Strategic Management Journal*, 7: 485–501.

— and Doz, Y. L. (1987). *The Multinational Mission: Balancing Local Demands and Global Vision*. New York: Free Press.

— and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, May–June: 79–91.

Rumelt, R. P. (1974). *Strategy, Structure and Economic Performance*. Boston: Harvard University Press.

Song, J. H. (1992). 'Diversification Strategies and the Experience of Top Executives of Large Firms'. *Strategic Management Journal*, 3/4 (Oct.–Nov.): 377–80. [Link ▶](#)

Stimpert, J. L., and Duhaime, I. M. (1997). 'In the Eyes of the Beholder: Conceptualization of Relatedness Held by the Managers of Large Diversified Firms'. *Strategic Management Journal*, 18/2 (Feb.): 111–26. [Link ▶](#)

Sutton, R. I., and Galunic, D. C. (1996). 'Consequences of Public Scrutiny for Leaders and Their Organization'. *Research in Organizational Behavior*. Greenwich, Conn.: JAI Press, 18: 201–250.

Szulanski, G., and Doz, Y. L. (1995). 'Strategy Formulation as Disciplined Imagination'. INSEAD Working Paper, 95/56/SM.

Tichy, N. M., and Sherman, S. (1993). *Control Your Destiny, or Someone Else Will: How Jack Welch is Making General Electric the World's Most Competitive Corporation*. New York: Doubleday.

Wrigley, L. (1970). 'Divisional Autonomy and Diversification'. Ph.D. dissertation, Harvard Business School.

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23 Strategies for Multinational Enterprises

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Alain Verbeke

23.1 The Porter Global Strategies

PORTER (1980) has argued that a generic strategy consists of two major choices. First, with regard to the type of competitive advantage being pursued, the choice is between low cost and differentiation. Second, is the choice of the firm's competitive scope, which reflects the breadth of its target market segments; the alternatives are a broad target, covering a whole industry and a narrow target, including only specific segments within an industry.

Based on these two parameters, Porter (1980) has distinguished among three generic strategies: cost leadership, differentiation, and focus. 'Generic strategy' requires a fundamental choice, whether intended or realized, made among alternative patterns of decisions and actions, with a substantial effect on an organization's functioning and performance.

These three types of basic business strategies are known in the business school literature as Porter's three 'generics'. A useful way to visualize these three strategies is in the matrix of Figure 23.1.

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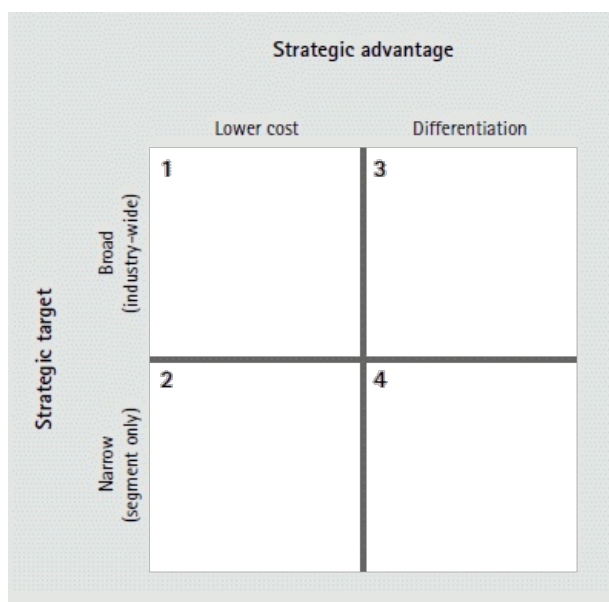


Fig. 23.1 Porter's three generic strategies

With the two axes, for strategic advantage (based on low cost or differentiation) and strategic target (scope of the product line; broad or narrow), it is possible to illustrate the three generic strategies, i.e. quadrant 1 for cost leadership and quadrant 3 for differentiation, with quadrants 2 and 4 for narrow (niched) product lines. There are, in fact, two subcategories of niches; focus-cost in quadrant 2 and focus-differentiation in quadrant 4. To operationalize these generic strategies requires that managers identify the source of their firms' competitive advantage, being aware of how these 'core competencies' are to be created and managed over time.

Porter (1986) has extended this generic strategies framework to take account of the complexities of global competition. Porter states that international strategy is primarily an issue of geographic scope. Porter defines a global industry as one 'in which a firm's competitive position in one country is significantly affected by its position in other countries or vice versa' (Porter 1986: 18). This work suggests that there are in fact four dimensions of competitive scope as shown in Figure 23.2:

- (1) segment scope (the range of segments the firm serves);
- (2) industry scope (the range of related industries the firm competes in with a coordinated strategy);
- (3) vertical scope (the activities performed by the firm instead of by suppliers and channels);

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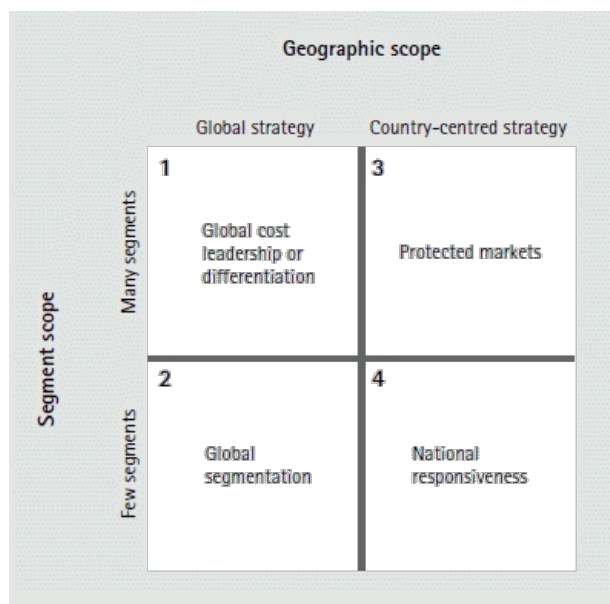


Fig. 23.2 Porter's global strategies

(4) geographic scope (the geographic regions in which the firm operates with a coordinated strategy) (Porter 1986: 22).

Porter's (1986) framework leads to four strategic alternatives for a global industry: global cost leadership or differentiation in quadrant 1; global segmentation in quadrant 2; protected markets in quadrant 3; or what he calls 'national responsiveness' in quadrant 4. Global cost leadership and global differentiation are defined by Porter as 'seeking the cost or differentiation advantages of global configuration/coordination through selling a wide line of products to buyers in all or most significant country markets' (Porter 1986: 47). Global segmentation is viewed as 'serving a particular industry segment worldwide'.

23.2 The Five Generic Global Strategies

Rugman and Verbeke (1993a) and Rugman (1996) have demonstrated how Porter's generic strategies framework can be extended to take into account the issue of

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geographic scope in a global industry. Using all the ideas in Figures 23.1 and 23.2, they show that Porter's three initial generic strategies can be transformed into the set of five generic global strategies depicted in Figure 23.3.

This is a simple way to integrate Porter's ideas, but it does highlight two conceptual problems associated with Porter's generic global strategies.

First, the core type of competitive advantage, namely cost leadership or differentiation, becomes indeterminate in three of the five cases, namely: a protected market strategy, global segmentation, and national responsiveness. Yet, in Porter's framework, firms may become 'stuck in the middle' if they pursue both cost leadership and differentiation simultaneously within the chosen geographic and/or market segment niche. As this occurs in three of the five cases, it implies that Porter's (1980) domestic generic strategies framework is theoretically inconsistent with the Porter (1986) global framework; cost leadership and differentiation cannot distinguish among three of the strategies in the international context.

Second, Porter's third strategy of protected markets is incompatible with the efficiency aspects of the other four global generic strategies. Global cost leadership and global differentiation are defined as 'seeking the cost or differentiation advantages of global configuration/coordination through selling a wide line of products to buyers in all or most significant country markets' (Porter 1986: 47). Global

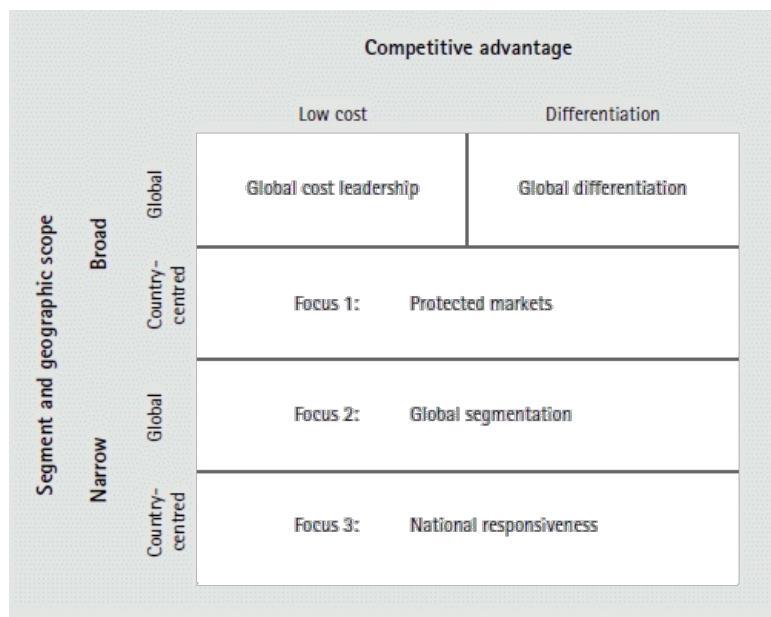


Fig. 23.3 Porter's extended generic strategies framework for global industries

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segmentation is viewed as 'serving a particular industry segment worldwide'. National responsiveness for a firm is a 'focus on those industry segments most affected by local country differences though the industry as a whole is global' and it meets 'unusual local needs in products, channels and marketing practices in each country, foregoing the competitive advantages of a global strategy' Porter (1986: 48).

In each of these four cases, efficiency, as measured by relative output/input differentials throughout the value chain, determines a firm's economic performance in terms of survival, profitability, and growth. In contrast, as Porter (1986: 48) recognizes himself, 'protected markets strategies lack a competitive advantage in economic terms, their choice depends on a sophisticated prediction about future government behaviour'. This demonstrates that Porter's extended framework of five generic global strategies based upon two parameters (scope and type of efficiency driven competitive advantage) should not really include the protected market strategy. Thus, a better framework for global strategies is required. We develop this in the next section.

23.3 Firm-Specific Advantages as Global Strategies

Rugman and Verbeke (1990, 1992a) and Rugman (1996) have demonstrated that the development and use of firm-specific advantages (FSAs), or the lack of them, reflects the truly generic strategies between which firms need to make a choice in each identifiable pattern of decisions and actions. FSAs include both proprietary know-how (unique assets) and transactional advantages with potential cost reducing and/or differentiation enhancing effects. In a number of cases, it may be difficult to assess the actual impact of an FSA, in terms of cost reduction or differentiation enhancement. Rugman and Verbeke (1991a) have suggested that in such cases, the contribution of an FSA to 'infrastructure development' of the firm should be considered. All strategies that build upon such FSAs or aim to develop new ones are classified as efficiency-based.

23.3.1 Shelter-based Strategies

In contrast, strategies that do not build upon FSAs to achieve a satisfactory economic performance in terms of survival, profitability, growth, or any other

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goal considered relevant by decision-makers are classified as non-efficiency-based or 'shelter'-based. If the economic performance of a firm or set of firms does not result from FSAs with cost reducing, differentiation enhancing, or infrastructure building characteristics, this performance must result from 'shelter'-based behaviour.

Shelter-based behaviour reflects instances where firms (a) attempt to impose 'artificial' costs or barriers to differentiation upon (foreign)

rivals through government regulation (e.g. tariff and non-tariff barriers) or (b) reduce the market incentives for cost reduction, differentiation enhancement or infrastructure building themselves (e.g. collusive behaviour and cartel formation aimed primarily at exploiting the consumer) or limit the potential effects of these incentives (e.g. government subsidies). In both cases, such strategies may lead to the elimination of workable competition.

Shelter-based strategies are especially significant in the international business context, where firms located in a particular nation may convince public policy-makers that protectionist measures will lead to higher economic welfare in terms of value-added creation or to a special type of public good in terms of the creation of domestic control over strategic sectors, technological spill-over effects, etc. This occurs even where such public goods may be nonexistent or where shelter leads to a substantial reduction in consumer welfare. Rugman and Verbeke (1991*b* and 1991*c*) and Rugman (1996) have demonstrated that such strategies may even subvert policies aimed at achieving a level playing field and fair trade, as now frequently occurs in the United States and the European Union.

23.3.2 Efficiency-based Strategies

The distinction between an efficiency-based strategy and a shelter-based strategy is truly fundamental because each strategy builds upon different intellectual premisses as to what constitutes the source of success. In the case of an efficiency-based strategy, consumer sovereignty ultimately determines whether or not the firm will be successful (except in the case of natural monopolies, which do not exist in international business). Strong economic performance reflects the successful creation of value for customers. In contrast, shelter-based strategies reflect behaviour that reduces value of customers, as compared to the situation where efficiency-based strategies would prevail.

The importance of distinguishing between these two types of strategy results from the fact that different 'weapons' are used and different 'rules of the game' are followed in each case. More specifically, firms pursuing a conventional efficiency-based strategy, but faced with shelter-seeking rivals, may suffer in the short run, compared to a situation where all competitors would be engaged in efficiency-based

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behaviour. In the short run, shelter-based behaviour will reduce the possibilities for rivals not engaged in such behaviour to exploit their FSAs or develop new ones. Yet, in the long run, shelter obviously works against the firms that build their economic performance on it. Rugman and Verbeke (1993*b*) and Rugman (1996) explore the ten main reasons why shelter-based strategies may fail in the long run. Further discussion of shelter-based strategies occurs in Box 23.1, while Box 23.2 gives an example of this issue.

Box 23.1 Shelter-based strategies

In practice, it may not always be easy for outside observers to classify a specific pattern of decisions and actions as efficiency-based or shelter-based. There are five main dimensions to consider: need, managerial intent, organizational routines, outcome, and impact on performance.

First, shelter-based strategies are used in international business only as the 'need' arises. This occurs when there is an absence of strong FSAs that would allow firms to beat rivals on the basis of the cost and differentiation characteristics of the products offered. An exception is the case of collusive behaviour when the various firms involved have strong FSAs (e.g. relative to foreign rivals) but attempt to extract rents from consumers through the elimination of competition.

Second, shelter-based behaviour generally results from managerial intentions to engage in such a pattern of decisions and actions but may still contain an emerging component.

Third, specific organizational routines resulting in lobbying efforts may increase the probability of shelter-based behaviour.

Fourth, as in the case of efficiency-based strategies, the goals pursued may not be achieved.

Fifth, government may refuse to provide shelter, thus affecting the firm's performance.

Box 23.2 The global shipbuilding industry

The study by Sung Cho Dong and Porter (1986) on the global shipbuilding industry demonstrates Porter's extended generic strategies framework. This analysis demonstrates that firms in the United Kingdom were not able to achieve a satisfactory economic performance after the mid-1950s in spite of strong government intervention in the form of subsidies. In contrast, alleged protected markets strategies in Japan after World War II led to a global cost leadership position. The main reason is that in the United Kingdom and many other European nations, government support was used to provide shelter, i.e. it was not intended and did not lead to a more efficient exploitation of existing firmspecific advantages (FSAs) or the development of new ones. In other words, government support acted as an artificial substitute for strong FSAs, and often resulted from firm lobbying.

In contrast, Japanese government support programmes were always intended to develop new FSAs and to foster the long run cost competitiveness/differentiation position of Japanese yards. In Japan, government support was used by shipbuilding companies as a complement to their existing FSAs and as a stimulus to generate new ones. These firms pursued efficiency-based strategies.

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23.4 A Framework for Strategies of Multinational Enterprises

Much of the international business literature suggests that, within the efficiency-based patterns of decisions and actions, two parameters can be used to distinguish fundamental subcategories of behaviour, as shown in Figure 23.4. Using the above analysis we can generate the two axes for Figure 23.4; number of home bases and the type of firm-specific advantage (FSA).

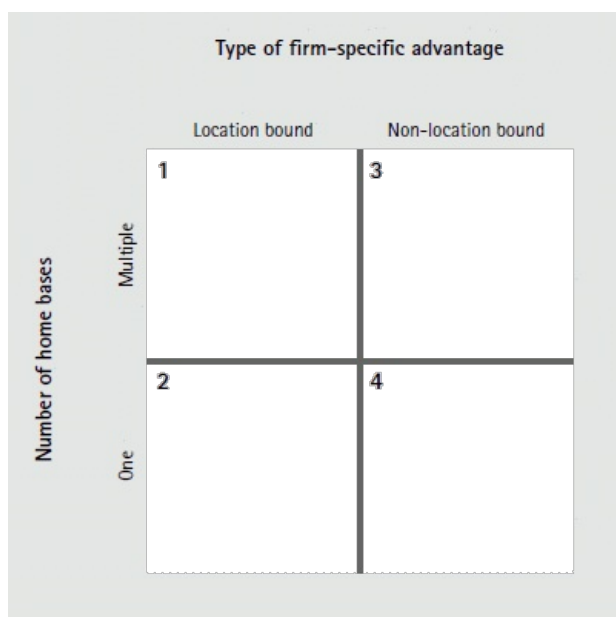


Fig. 23.4 Principal categories of efficiency-based strategies

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23.4.1 Firm-specific Advantages

The horizontal axes represents the type of FSAs to be developed or exploited, Rugman and Verbeke (1992b) and Rugman (1996). An important distinction exists between location bound FSAs (LB-FSAs) and non-location bound FSAs (NLB-FSAs). The former benefit a company only in a particular location (or set of locations), and lead to benefits of national responsiveness. In the context of international business operations, these LB-FSAs cannot be effectively transferred as an intermediate output (e.g. a tangible or intangible asset) or embodied in the final outputs of the organization, to be sold across borders. In contrast, NLB-FSAs are easily transferred and exploited abroad, whether in the form of intermediate outputs or embodied in final outputs. They lead to benefits of integration in terms of economies of scale and scope and exploitation of national differences. Many authors, including Bartlett (1986), Bartlett and Ghoshal (1989), Doz (1986), Ghoshal (1987), Kogut (1985a, 1985 b), Prahalad and Doz (1987), and Roth and Morrison (1990), have provided the intellectual foundations that led to making this important distinction between two fundamentally different types of FSAs, see Rugman and Verbeke (1991a, 1992a, 1992b).

23.4.2 Home Bases

The second axis is related to the number of 'home bases' used by the firm. A 'home base' is defined by Porter (1990) as the nation where the firm retains effective strategic, creative, and technical control. In addition, it is considered central 'to choosing the industries to compete in as well as the appropriate strategy' (see Porter 1990: 599) Rugman and Verbeke (1993b) have demonstrated that a firm may actually have several home bases contributing substantially to the development of new FSAs, so as to improve international competitiveness. It is important to distinguish between the existence of a single home base or multiple home bases in the pursuit of

international competitiveness, because it reflects the impact of the country-specific advantages (CSAs) of specific locations on strategic behaviour. A single home base implies the dominating impact of one set of national 'diamond' CSAs on the firm's overall competitiveness, both now and in the future. In contrast, a firm with multiple home bases depends upon decisions and actions taken in various locations and upon the characteristics of these locations.

To the extent that the development and exploitation of NLB-FSAs requires coordination of decisions and actions across borders, a single home base implies direct, centralized control of all foreign operations. In contrast, in the case of a global subsidiary mandate, for example, the 'corporate headquarters' role shifts towards 'managing dispersed strategic processes, ensuring that subsidiary strategies

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continue to fit the overall corporation goals and providing the resources and freedom required to support the mandates' (Roth and Morrison 1992: 718). In this case, typical home base activities are concentrated in the various nations where subsidiaries have received global subsidiary mandates.

23.4.3 The Four Cases

In Figure 23.4, four important categories of efficiency-based strategies in global industries are described, which are much more fundamental than the Porter ones. Patterns of decisions and actions in quadrant 1 are typical for so-called *multinational* firms, as defined by Bartlett and Ghoshal (1989). Here, the different operations in various countries are viewed as largely independent and build their performance on strengths in being national responsive. In quadrant 2, competitiveness results from having only a single home base and building upon FSAs that lead to benefits of national responsiveness. Here, we find *uni-national firms* that attempt to remain competitive vis-à-vis global rivals in one or a limited set of nations. Quadrant 3 reflects strategies aimed at achieving a superior economic performance through using multiple home bases, each of which builds upon NLB-FSAs. Firms with *global subsidiary mandates*, as described by Rugman and Bennett (1982), Poynter and Rugman (1983), Roth and Morrison (1992), typically fall in this quadrant. The main characteristic of Bartlett and Ghoshal's (1989) *transnational solution* is the simultaneous occurrence of patterns of decisions and actions that fit into quadrants 1 and 3 of Figure 23.4.

Finally, quadrant 4 reflects behaviour typical for both the *global firms* and the *international firms* as defined by Bartlett and Ghoshal (1989). *Global firms* attempt to achieve global scale economies by producing primarily in a single country and exporting products globally as these embody the firm's NLB-FSAs. *International firms* pursue international scope economies and/or benefits of exploiting national differences by transferring know-how across borders and/or by coordinating dispersed activities placed in different optimal locations. The dispersion of value activities implies global rationalization, whereby each subsidiary specializes in a narrow set of activities in the value chain, see Kobrin (1991).

23.4.4 Examples of the Framework

These four types of efficiency-based strategies appear to reflect the various archetypal firms engaged in international business as portrayed in the relevant literature. They also represent clearly identifiable patterns of decisions and actions in the pursuit of a satisfactory economic performance. These patterns in fact constitute

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alternatives among which choices need to be made, e.g. when reacting to an environmental change such as the 'EC 1992' programme or the North American Free Trade Agreement, even within a single strategic business unit (Rugman 1994).

The framework is more relevant for strategic management purposes than the one of Porter (1986) on the configuration (geographically dispersed or concentrated) and coordination (low or high) of activities. A dispersed as opposed to a concentrated configuration of a firm's activities, in general, does not necessarily carry important strategic implications. What is more relevant is to know where and how the core activities are carried out which will determine the development of new FSAs, and which maybe substantially affected by CSAs of the locations where they were developed. Similarly, the framework is more relevant for coordination issues. It is more important to know what the resources are of a firm and its rivals, in terms of LB-FSAs and NLB-FSAs that will lead to either benefits of national responsiveness or benefits of integration, than to observe that some of these benefits, especially scope economies and benefits of exploiting national differences, require coordination across borders in order to be realized.

In related work, Chang Moon (1994) has shown that Porter's configuration/coordination framework is conceptually flawed. Porter (1986: 28) argues that a firm with a geographically concentrated coordination configuration of activities and a high international coordination among these activities pursues a simple global strategy. In fact, in the extreme case, the firm with a concentrated configuration of activities is

either a uni-national or exporting firm that does not perform activities in other countries, so that there is nothing to be internationally coordinated. In other words, in Porter's matrix, the concentrated configuration/high coordination quadrant is really an empty cell. Porter argues that 'the simplest global strategy is to concentrate as many activities as possible in one country, serve the world from this home base, and tightly coordinate through standardisation those activities that must inherently be performed near the buyer' (1986: 27). The problem with this statement is that it suggests that some activities must always be performed near the buyer. In reality, a virtually complete concentration of activities in one country makes the international coordination issue redundant in global strategic management.

23.5 Integrating the Literature into the Rugman and Verbeke Framework

This new framework, developed in greater detail in Rugman and Verbeke (1993b) is a general framework of global strategy. Applications of it to the interaction between

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government policy and MNE strategy are summarized in Rugman and Verbeke (1998). Applications to networks and subsidiaries are made in Rugman and Verbeke (2001). Three standard mainstream classifications of multinational strategies in the international business literature are also in accordance with the framework. These are the typologies of international business strategies of Ghoshal and Bartlett (1988a) and (1988b); of Gupta and Govindarajan (1991), and of Ghoshal and Westney (1993). These typologies are based on the role of the foreign subsidiaries in the R&D process.

23.5.1 Ghoshal and Bartlett

Ghoshal and Bartlett's four types of R&D strategies can be fitted into Figure 23.4 based on the analysis of the preceding sections. First, the local-for-local process (quadrant 1); second, the local-for-global and global-for-global approaches (quadrant 3); third, the centre-for-global process (quadrant 4).

23.5.2 Gupta and Govindarajan

The Gupta and Govindarajan typology also fits in Figure 23.4. The local innovator (quadrant 1), the global innovator and integrated player (quadrant 3), and the implementor roles (quadrant 4) of the subsidiaries in the innovation process are again in accordance with our framework. It is interesting to observe that quadrant 3 of Figure 23.4 includes two types from each of the typologies. In our view, the local-for-global (or global innovator) approach is fundamentally very similar to the global-for-global (or integrated player) process, but the latter approach just reflects a more complex process of creating NLB-FSAs through multiple, highly interdependent, rather than semi-autonomous home bases.

23.5.3 Ghoshal and Westney

Several recent descriptions of strategic decision-making patterns in MNEs suggest that many firms are now moving towards a structure that builds upon multiple home bases and requires the simultaneous development of LB-FSAs and NLB-FSAs. This allows an effective response to the dual requirements of national responsiveness and global integration. One of the main characteristics of this structure is that it can consider all factors contributing to these conflicting demands simultaneously

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rather than separately. This new organizational form has been given various names, including the 'transnational' (Bartlett 1986), the 'heterarchy' (Hedlund 1986), the 'multifocal firm' (Prahalad and Doz 1987), and the 'multiple headquarters system' (Nonaka 1990).

Ghoshal and Westney (1993) have identified five characteristics of this new type of firm, namely dispersion, interdependence, tight coupling of sub-units, cross-unit learning, and structural flexibility. The *dispersion* aspect precisely reflects the existence of multiple home bases, e.g. in the area of innovation. The presence of multiple home bases implies that the MNE becomes an integrated network of *interdependent* units that must be *tightly coupled* in order to exploit NLB-FSAs across borders. The development and diffusion of new NLB-FSAs becomes a process whereby the different sub-units of the network need to engage in *crossunit learning*. However, in order to achieve an optimal balance between the creation and exploitation of both LB-FSAs and NLB-FSAs, *structural flexibility* is required. Structural flexibility means that the management process must be able to change from product to product, from country to country, and even from decision to decision (Bartlett 1986).

The requirement to build upon both LB-FSAs and NLB-FSAs in order to achieve global competitive success is now well established.

However, the important question remains whether individual firms require specific linkages with their environment to develop and exploit the required resource base, especially in terms of the NLB-FSAs. In other words, is it sufficient to focus on establishing an intra-organizational network with cross-unit learning or is it necessary to develop strategies regarding the management of an inter-organizational network?

23.6 Business Networks and Global Competitiveness

In spite of a clear evolution in the direction of multiple home bases, a substantial number of MNEs still operate from a single home base, as is reflected in the work of Porter (1990). Given that NLB-FSAs can be initiated in one or many geographical locations, the important question arises whether their development and diffusion throughout the company requires specific linkages with outside actors.

Figure 23.5 represents this managerial focus on an intra-organizational versus inter-organizational network (horizontal axis), in the situation of both a single and multiple home bases (vertical axis).

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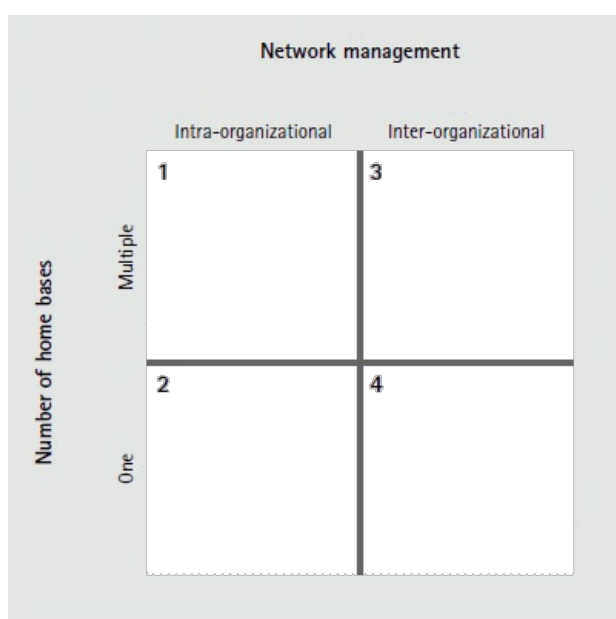


Fig. 23.5 Business networks in international strategic management

23.6.1 MNEs as Hierarchies

The second quadrant (an intra-organizational network and a single home base) reflects a substantial body of primarily economics driven literature on the expansion of hierarchical MNE activity Vernon's (1966, 1979) product cycle hypothesis; Dunning's (1981) original eclectic paradigm and conventional internalization theory as developed by Buckley and Casson (1976) and Rugman (1981) all attempt to explain the international expansion and success of MNEs building upon the premiss that FSAs are developed in a single location and then diffused internationally through foreign direct investment rather than other entry modes when a number of specific internal conditions (internalization advantages) and external conditions (location advantages) are fulfilled. Williamson's transaction cost approach (1981), building upon the work of Chandler (1962) and Tsurumi (1977), as well as its extensions, see e.g. Teece (1983, 1985), is consistent with this view. The multinational, multidimensional (M) form portrayed in this work describes a very simple intra-organizational network whereby the corporate headquarters organize the firm into semi-autonomous profit units, monitor the (financial) performance of these units, allocate resources to them, and engage in centralized strategic

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planning. A clear top down, hierarchical structure is established and no direct interdependences are supposed to exist among sub-units.

23.6.2 MNEs as Networks

Recent extensions of both the eclectic paradigm (Dunning 1988 and 1993a) and internalization theory (Rugman and Verbeke 1990 and 1992b) have recognized the intra-organizational implications of MNEs functioning with multiple home bases and the limits of the M-form, i.e. quadrant 1 of Figure 23.5. More specifically, in accordance with Hennart (1993), it has been suggested that coordination and control of the internal network should be performed through the use of a mix of hierarchical controls, price controls, and socialization.

Transaction costs associated with operating complex internal networks can be further reduced by introducing procedural justice elements in strategic decisionmaking processes, see Kim and Mauborgne (1993). Procedural justice appears to be of fundamental importance to achieve attitudes of commitment, trust, and social harmony within the different sub-units of an MNE. This is consistent with the observation of Prahalad and Doz (1987) that 'due process' constitutes a necessary condition for effective strategic decision-making in MNEs.

The complexity of internal network management in the presence of multiple home bases is consistent with the concept of heterarchy as described by Hedlund (1986, 1993) and Hedlund and Rolander (1990). It also explains the rise of several sophisticated coordination and control mechanisms in MNEs (Martinez and Jarillo 1989). This focus on the intra-organizational network of the MNE is sufficient in cases whereby the social context exerts only a limited influence on the sub-units located in different home bases, when they develop new NLB-FSAs.

23.6.3 Inter-organizational Networks

However, the right-hand side of Figure 23.5 takes into account that MNEs may function in complex environments, many elements of which cannot be reduced to the five forces driving industry competition as described in the work of Porter (1980, 1985) on competitive strategy. The influence of the environment on the process of NLB-FSA development in MNEs also requires a richer analysis than the one provided by, e.g. conventional internalization theory where the location advantages characterizing alternative nations or regions are identified, especially within the context of optimal location selection, but where only limited attention is devoted to the dynamic interaction among firm-specific and environmental factors; see Dunning (1993a) for an in-depth discussion.

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A large body of literature does exist on the creation and management of joint ventures and other types of cooperative agreements in international business, see e.g. Contractor and Lorange (1988), Doz, Prahalad, and Hamel (1990), and Geringer (1991). However, only little has been written on the management of interorganizational networks with multiple actors in international business, notable exceptions being Dunning (1993b) and Westney (1993).

23.6.4 Institutional Theory

Institutionalization theorists have argued that the appropriate level for studying inter-organizational linkages is the so-called 'organizational field', i.e. 'those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resources and product consumers, regulatory agencies, and other organizations that produce similar services or products' (Westney 1990: 284 and 1993: 56, citing DiMaggio and Powell 1983: 148). The main characteristic of such a network is mutual recognition of the different partners involved. This mutual recognition may lead to isomorphism in cases whereby the different organizations are characterized by resource dependency. Such isomorphism can easily be given a transaction cost interpretation: 'transactions are less costly in time and effort between organizations that are similar' (Westney 1993: 70). If this resource dependency is symmetric, it may lead to the formation of clusters as described by Porter (1990). In the case of asymmetric interdependence, business networks may be formed (see D'Cruz and Rugman 1994; Rugman and D'Cruz 2000).

23.6.5 Porter's Clusters

Porter's (1990) clusters consist of sets of economic actors linked through the elements of the diamond of competitive advantage in a nation (factor conditions, demand conditions, industry characteristics, related and supporting industries). Porter's (1990) work is useful to study the impact of inter-organizational networks on the international competitiveness of firms and industries with a single home base. Although such clusters arise largely unintendedly, as a result of the so-called 'systemic nature of the diamond' (Porter 1990: 148), i.e. the mutual interactions among the various determinants of a single national diamond, it is interesting to observe that Porter focuses primarily on the benefits of these clusters and not on the costs; e.g. as regards the reduction of a firm's autonomy. This is shown in quadrant 4 of Figure 23.5.

Enright (1993) has examined the relationship between localization (geographic concentration) and the coordination of economic activity within industries. He

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supports Krugman's (1991) view that there is no single progression or path along which geographically clustered industries evolve. By improving coordination and communication across firms in an industry, localization may influence, but not solely determine, the boundaries of these firms. Enright's case studies of localized industries indicate that surviving industries change organization and coordination mechanisms to reflect changes in the relevant task environment, be they in markets, technology, government involvement, etc. He warns that localized groups of firms will decline if they do not adapt to changing external circumstances. The move towards establishing multiple home bases obviously implies a similar challenge, with MNEs being confronted with fundamentally new environments, as compared to the initial home country environment.

23.6.6 The Flagship Model

Building upon Porter's (1990) cluster framework, Rugman and D'Cruz (2000) have developed the concept of business network as a tool for obtaining a favourable international competitive advantage. This is shown in quadrant 3 of Figure 23.5. This is different from Porter's cluster in two ways: first, the strategic intent of the partners to engage in network formation and second, the asymmetric coordination and control of the network. In their view, a business network consists of a group of firms and non-business institutions competing globally and linked together through resource dependencies. There are five partners in the business network: the flagship firm which is typically a large multinational enterprise, key suppliers, key customers, competitors, and the non-business infrastructure. This last partner includes the service-related sectors, educational and training institutions, the various levels of government, and other organizations such as trade associations, non-governmental organizations, and unions.

The business network is characterized also by the flagship firm's asymmetric strategic control over the network partners in common areas of interest. This asymmetry entails leadership and direction-setting, effectively a 'strategic hand', in setting the priorities of the partners in regard to their participation in the flagship firm's business system. Asymmetric strategic control by the flagship firm is consistent with the idea that international competitiveness demands NLB-FSAs. It is the flagship firm, typically a multinational (MNE), which has the global perspective and resources to lead a business network and to establish the global benchmarks necessary to lead the development of the network. The authors usefully applied this framework to describe international expansion strategies in the telecommunications industry, D'Cruz and Rugman (1994, 2000). However, the important question that is not answered in either of the two frameworks described above is how the form and functioning of inter-organizational networks positioned in

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quadrant 4 of Figure 23.5 may be altered, when firms move towards having multiple home bases.

23.6.7 Transnational Networks

In quadrant 3 of Figure 23.5 the main problem facing MNE management thus becomes that each home base may be faced with specific isomorphic pulls that may be conflicting. It is important to realize that the isomorphic pulls faced by a specific sub-unit of an MNE may be entirely unrelated to the development of NLB-FSAs in order to become more nationally responsive. The 'local' patterns to be emulated may be those prevailing in subsidiaries of other MNEs or in foreign operations of firms from related and supporting industries. In any case, the process of creating and diffusing NLB-FSAs throughout the intra-organizational network of an MNE may also be influenced by variations in isomorphic pulls arising from interorganizational linkages. More specifically, in the case of conflicting isomorphic pulls, a local-for-global approach could be established. Here, mimetic isomorphism by each sub-unit in a home base, i.e. its emulation of behavioral patterns considered successful in its specific inter-organizational network, leads to selective coercive isomorphism in the intra-organizational network.

In other words, the activities of sub-units elsewhere in the firm that are dependent on transfers of NLB-FSAs from a particular home base need to conform to what is viewed as legitimate by the sub-unit in that home base. In contrast, in the case of complementarities among isomorphic pulls faced by sub-units in the different home bases, a global-for-global approach when developing new NLB-FSAs may be adopted. Here, it should be emphasized that the relevant isomorphic pulls must not be identical but complementary. Given the existence of complementary versus conflicting isomorphic pulls that characterize the inter-organizational linkages faced by the sub-units in each of the multiple home bases, the question arises what strategies can be pursued by the MNE in order to cope with these external forces.

More specifically, the question is, whether an MNE should simply adopt a reactive strategy, i.e. a strategy of isomorphic flexibility, whereby it attempts to adapt itself as well as possible to existing isomorphic pulls arising from the relevant organizational field in the form of coercive, normative, and or mimetic isomorphism as described by Westney (1993: 55). In this case, isomorphic pulls arising from the external environment largely determine the functioning of the intra-organizational network. An alternative is to change the external network,

through a so-called 'institutionalization project' approach. In this case, the intra-organizational network attempts to alter the external network. This problem of optimal 'transnational network' management is explored further in Rugman and Verbeke (1995).

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23.7 Summary

Michael Porter's (1980) three generic strategies of cost, differentiation, and focus (in Figure 23.1) were extended by geographic scope and transformed into five generics in the Porter (1986) paper on global strategy, see Figure 23.2. Unfortunately, as shown in Figure 23.3, the resulting strategies are neither global nor generic. One key problem is Porter's peculiar use of the concept of 'national responsiveness'. A new framework for generic strategies was developed in Figure 23.4, in which location bound and non-location bound firm-specific advantages are related to the number of home bases. This generates truly generic strategies for multinational enterprises.

The second half of the chapter developed a new organizing framework to analyse the role of transnational networks in global competition. It demonstrated that the analysis of transnational networks may lead to new insights regarding the sources of sustainable global competitive advantage. Previously, mainstream conceptual models in the international business literature neglected the formation of transnational networks as a condition for global competitiveness. These models, which include the eclectic paradigm (Dunning 1993a), the transnational solution framework (Bartlett and Ghoshal 1989), and the diamond of competitive advantage model (Porter 1990), fail to recognize the major role that transnational networks can fulfil in a context of global competition. The new framework, in Figure 23.4, suggests a classification of transnational network strategies which can incorporate other mainstream literature in international business.

In terms of generic strategies for MNEs, the key problem with the Porter frameworks of domestic competitive strategy (Porter 1980), global strategy (Porter 1986), and the home country diamond of national competitiveness (Porter 1990) is that all of them build upon a single home base. Competitive advantage is achieved by firms using their home base as a staging ground for globalization. Yet, evidence on the activities of MNEs shows that they now operate across multiple home bases rather than the single home base consistent with a Vernon (1966)–Porter (1990) international product cycle approach. In particular, MNEs operate on a triadregional basis and follow regional rather than global strategies (Rugman 2000). Today, most of the interesting research issues in international business stem from the complexities of organizing an MNE network across multiple home bases (Rugman and Verbeke 2001). The new framework advanced here is a useful starting point for realistic research on MNEs and their network organizational structures.

As shown in Figure 23.5, today, most MNEs function with multiple home bases. The problems faced by these firms to create and diffuse new knowledge go far beyond questions related to solving Porter-type home country–host country conflicts and require finding a balance between developing LB-FSAs and NLB-FSAs. The process of developing NLB-FSAs in an organizational context of multiple home

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bases is complicated farther by the fact that not only the intra-organizational network must be managed, but also the inter-organizational networks.

Isomorphic pulls arising from inter-organizational linkages in each home base may be conflicting or complementary, as shown in Figure 23.5. The issue is whether an intra-organizational network MNE should adopt a strategy of isomorphic flexibility or make an attempt to alter the external context. Can these two options be pursued simultaneously by a single MNE engaged in transnational network management? Does one option need to be selected, based on the administrative heritage of the intra-organizational network? These organizational issues for MNEs represent some of the unfinished research agenda of international management.

References

- Bartlett, C. A. (1986). 'Building and Managing the Transnational: The New Organizational Challenge', in M. Porter (ed.), *Competition in Global Industries*. Boston: Harvard Business School Press, 367–404.
- Bartlett, C. A. and Ghoshal, S. (1989). *Managing Across Borders: The Transnational Solution*. Boston: Harvard Business School Press.
- Buckley, P., and Casson, M. (1976). *The Future of the Multinational Enterprise*. London: Macmillan.
- Chandler, A. D. (1962). *Strategy and Structure: Chapters in the History of the Industrial Enterprise*. Cambridge, Mass.: MIT Press.
- Contractor, F. J., and Lorange, P. (1988). *Cooperative Strategies in International Business*. Lexington, Mass.: Heath and Company.
- D'Cruz, J. R., and Rugman, A. M. (1994). 'Business Network Theory and the Canadian Telecommunications Industry'. *International Business Review*, 3/3: 275–88. 
- DiMaggio, P. J., and Powell, W. W. (1983). 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational

Fields'. *American Sociological Review*, 48: 147–60. [Link](#)

Doz, Y. (1986). *Strategic Management in Multinational Companies*. Oxford: Pergamon.

— Prahalad, C. K., and Hamel, G. (1990). 'Control, Change and Flexibility: The Dilemma of Transnational Collaboration', in C. A. Bartlett, Y. Doz, and G. Hedlund (eds.), *Managing the Global Firm*. London: Routledge, 117–43.

Dunning, J. H. (1981). *International Production and the Multinational Enterprise*. London: George Allen and Unwin.

— (1988). 'The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions'. *Journal of International Business Studies*, 19/1: 1–31. [Link](#)

— (1993a). *Multinational Enterprises and the Global Economy*. New York: Addison-Wesley Publishing Company.

— (1993b). *The Globalization of Business: The Challenge of the 1990s*. London and New York: Routledge.

Enright, M. J. (1993). 'The Geographic Scope of Competitive Advantage', Working Paper, Harvard Business School, Mar.

end p.694

Geringer, J. M. (1991). 'Strategic Determinants of Partner Selection Criteria in International Joint Ventures'. *Journal of International Business Studies*, 22/1: 41–62. [Link](#)

Ghoshal, S. (1987). 'Global Strategy: An Organizing Framework'. *Strategic Management Journal*, 8/5: 425–40.

Ghoshal, S. and Bartlett, C. A. (1988a). 'Innovation Processes in Multinational Corporations', in M. L. Tushman and W. L. Moore (eds.), *Readings in the Management of Innovation* (2nd edn.). New York: Harper Business, 499–518.

— — Ghoshal, S. and Bartlett, C. A. (1988 b). 'Creation, Adoption, and Diffusion of Innovations by Subsidiaries of Multinational Corporations'. *Journal of International Business Studies*, 19/3: 365–88. [Link](#)

— — and Westney, D. E. (1993). *Organization Theory and the Multinational Corporation*. New York and London: St Martin's Press.

Gupta, A. K., and Govindarajan, V. (1991). 'Knowledge Flows and the Structure of Control within Multinational Corporations'. *Academy of Management Review*, 16/4: 768–92. [Link](#)

Hedlund, G. (1986). 'The Hypermodern MNC: A Hierarchy?' *Human Resource Management*, 25: 9–35. [Link](#)

— (1993) 'Assumptions of Hierarchy and Heterarchy, with Applications to the Management of the Multinational Corporation', in S. Ghoshal and D. E. Westney (eds.), *Organization Theory and the Multinational Corporation*. London: St Martin's Press, 211–36.

— — and Rolander, D. (1990). 'Actions in Heterarchies: New Approaches to Managing the MNC', in C. A. Bartlett, Y. Doz, and G. Hedlund (eds.), *Managing the Global Firm*. London: Routledge, 15–46.

Hennart, J. F. (1993). 'Control in Multinational Firms: The Role of Price and Hierarchy', in S. Ghoshal and D. E. Westney (eds.), *Organization Theory and the Multinational Corporation*. New York and London: St Martin's Press, 157–81.

Kim, W. Chan, and Mauborgne, R. (1993). 'Procedural Justice Theory and the Multinational Corporation', in S. Ghoshal and D. E. Westney (eds.), *Organization Theory and the Multinational Corporation*. New York and London: St Martin's Press, 237–55.

Kobrin, S. (1991). 'An Empirical Analysis of the Determinants of Global Integration'. *Strategic Management Journal*, 12/Special Issue: 17–31. [Link](#)

Kogut, B. (1985a). 'Designing Global Strategies: Comparative and Competitive Value-Added Chains'. *Sloan Management Review*, Summer: 15–28.

— (1985b). 'Designing Global Strategies: Profiting from Operational Flexibility'. *Sloan Management Review*, Fall: 27–38.

Krugman, P. (1991). *Geography and Trade*. London: MIT Press.

Martinez, J., and Jarillo, J. C. (1989). 'The Evolution of Research on Coordination Mechanisms in Multinational Corporations'. *Journal of International Business Studies*, 20/3 (Fall): 489–514. [Link](#)

Moon, H. C. (1994). 'A Revised Framework of Global Strategy: Extending the Coordination–Configuration Framework'. *International Executive*, 36/5: 557–73. [Link](#)

——— Rugman, A. M., and Verbeke, A. (1995). 'The Generalized Double Diamond Approach to International Competitiveness', in A. M. Rugman, J. Van Den Broeck, and A. Verbeke (eds.), *Research in Global Strategic Management*, Vol. 5. *Beyond the Diamond*. Greenwich, Conn.: JAI Press, 97–114.

——— (1998). 'A Generalized Double Diamond Approach to Global Competitiveness of Korea and Singapore'. *International Business Review*, 7: 135–50. [Link▶](#)

end p.695

Nonaka, I. (1990). 'Managing Globalization as a Self-Renewing Process: Experiences of Japanese MNCs', in C. A. Bartlett, Y. Doz, and G. Hedlund (eds.), *Managing the Global Firm*. London: Routledge, 69–94.

Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Companies*. New York: Free Press.

——— (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

——— (1986). *Competition in Global Industries*. Boston: Harvard Business School Press.

——— (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Poynter, T. A., and Rugman, A. M. (1983). 'World Product Mandates: How Will Multinationals Respond?'. *Business Quarterly*, 47/3: 54–61.

Prahalad, C. K., and Doz, Y (1987). *The Multinational Mission: Balancing Local Demands and Global Vision*. New York: Free Press.

Roth, K., and Morrison, A. K. (1990). 'An Empirical Analysis of the Integration-Responsiveness Framework in Global Industries'. *Journal of International Business Studies*, 21/4: 541–64. [Link▶](#)

——— Roth, K., and Morrison, A. K. (1992). 'Implementing Global Strategy: Characteristics of Global Subsidiary Mandates'. *Journal of International Business Studies*, 23/4: 715–36.

Rugman, A. M. (1981). *Inside the Multinationals: The Economics of Internal Markets*. New York: Columbia University Press.

——— (ed.) (1994). *Foreign Investment and NAFTA*. Columbia, SC: University of South Carolina Press.

——— (1996). *The Theory of Multinational Enterprises*. Cheltenham: Elgar.

——— (2000). *The End of Globalization*. London: Random House Business Books.

——— and Bennett, J. (1982). 'Technology Transfer and World Product Manufacturing in Canada'. *Columbia Journal of World Business*, 18/4: 58–62.

——— and D'Cruz, J. (2000). *Multinationals as Flagship Firms: Regional Business Networks*. Oxford: Oxford University Press.

——— and Verbeke, A. (1990). *Global Corporate Strategy and Trade Policy*. London: Routledge.

——— (1991 a). 'Environmental Change and Global Competitive Strategy in Europe', in A. M. Rugman and A. Verbeke (eds.), *Research in Global Strategic Management*, Vol. 2. *Global Competition and the European Community*. Greenwich, Conn.: JAI Press: 3–27.

——— (1991 b). 'Mintzberg's Intended and Emergent Corporate Strategies and Trade Policies'. *Canadian Journal of Administrative Sciences*, 8/3: 200–8.

——— (1991 c). 'Trade Barriers and Corporate Strategy in International Companies'. *Long Range Planning*, 24/3: 66–72. [Link▶](#)

——— (1992 a). 'Shelter, Trade Policy and Strategies for Multinational Enterprises', in A. M. Rugman and A. Verbeke (eds.), *Research in Global Strategic Management*, Vol. 3. *Corporate Response to Global Change*. Greenwich, Conn.: JAI Press, 3–25.

——— (1992 b). 'A Note on the Transnational Solution and the Transaction Cost Theory of Multinational Strategic Management'. *Journal of International Business Studies*, 23/4: 761–71. [Link▶](#)

——— (1993 a). 'Generic Strategies in Global Competition', in A. M. Rugman and A. Verbeke (eds.), *Research in Global Strategic Management*, Vol. 4. *Global Competition: Beyond the Three Generics*. Greenwich, Conn.: JAI Press, 3–15. [Link▶](#)

end p.696

—— (1993b). 'Foreign Subsidiaries and Multinational Strategic Management: An Extension and Correction of Porter's Single Diamond Framework'. *Management International Review*, 33/Special Issue 1: 71–84.

—— (1995). 'Transnational Network and Global Competition: An Organizing Framework', in A. M. Rugman and A. Verbeke (eds.), *Research in Global Strategic Management*, Vol. 5. *Beyond the Diamond*. Greenwich, Conn.: JAI Press, 3–24.

—— (1998). 'Multinational Enterprises and Public Policy'. *Journal of International Business Studies*, 29/1: 115–36. [Link](#)

—— (2001). 'Subsidiary Specific Advantages in Multinational Enterprises'. *Strategic Management Journal*, 22/3: 237–50. [Link](#)

Teece, D. (1983). 'A Transaction Cost Theory of the Multinational Enterprise', in M. Casson (ed.), *The Growth of International Business*. London: Allen & Unwin, 51–62.

—— (1985). 'Multinational Enterprise, Internal Governance and Economic Organization'. *American Economic Review*, 75: 233–8.

Tsurumi, Y. (1977). *Multinational Management*. Cambridge, Mass.: Ballinger.

Vernon, R. (1966). 'International Investment and International Trade in the Product Cycle'. *Quarterly Journal of Economics*, 80/2: 190–207. [Link](#)

—— (1979). 'The Product Cycle Hypothesis in a New International Environment'. *Oxford Bulletin of Economics and Statistics*, 41: 255–67.

Westney, D. E. (1990). 'Internal and External Linkages in the MNC: The Case of R&D Subsidiaries in Japan', in C. A. Bartlett, Y. Doz, and G. Hedlund, (eds.), *Managing the Global Firm*. New York and London: Routledge, 279–302.

—— (1993). 'Institutionalization Theory and the Multinational Corporation', in S. Ghoshal and D. E. Westney (eds.), *Organization Theory and the Multinational Corporation*. New York and London: Macmillan, 237–55.

Williamson, O. E. (1981). 'The Modern Corporation: Origins, Evolution, Attributes'. *Journal of Economic Literature*, 19/Dec: 537–68.

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19 The Role of the Parent Company

Andrew Campbell

19.1 Introduction

MANY corporate parent companies destroy value. The businesses in the corporate portfolio would be better off as independent companies or as part of other corporate portfolios. This is the disturbing conclusion after ten years of research and consulting on the subject of corporate-level strategy and the role of the corporate centre.

The main evidence lies in the hundreds of stories and situations where the corporate parent's influence over a business unit has caused the managers in the unit to make the wrong decisions, or at least to make poorer decisions than they would have made without the parent's influence.¹

¹ Much of our research was aimed at finding situations where value is being created by the influence of the parent. We would ask business-unit managers: 'What value are you getting from being part of the group and more specifically from your relationship with the corporate centre?' More often than not, they would start by saying: 'That's a hard question to answer. I can tell you about the disadvantages, costs, and constraints. But value received, well...'

It is these value-destroying interventions that so often give rise to the groundswell of complaint and resentment that business-unit managers express when talking about their corporate centres. This body of anecdotal evidence is supported by analysts' reports, and the activities

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of raiders, which show that many large companies have a market value lower than their break-up value. The continuing success of management buy-outs, where business units blossom when freed from the grasp of some large corporation, also demonstrates how widespread value destruction by corporate parents is (see e.g. Green and Berry 1991; Jensen 1991; and Young and Sutcliffe 1990).

On the other hand, there are some companies where the parent is clearly creating value, where the business-unit managers have high respect for the corporate centre and the influence it has over their businesses, and where the company's market value is greater than the sum of its parts. The stories, the atmosphere, and the results in these successful corporate parents are completely different, underlining both the shortcomings in many large companies and the opportunities for those who get their corporate-level strategies right.

This chapter will focus on the role and influence of corporate parents in multibusiness companies. The corporate parent consists of all managers and staff not assigned to a business unit, including not only the corporate headquarters but also division, group, region, and other intermediate levels of management. Do these parent managers and staff create or destroy value? This issue lies at the heart of the justification for multi-business companies.

Unless the parent company is creating value greater than its cost, the business units would be better off as independent companies. The observation that many parent companies today are actually destroying value adds urgency to the need to identify the conditions under which value is likely to be created.²

² See Goold, Campbell, and Alexander 1994, for a fuller description of our conclusions and the research on which they are based.

19.2 Four Ways to Destroy Value

Parent companies affect value in four ways—through stand-alone influence, through linkage influence, through central functions and services, and through corporate development activities.³

³ This categorization of the ways in which parents affect value is collectively exhaustive but not mutually exclusive: particular actions can fall into one or more categories. The categorization has, however, proved practically useful. It is similar to categorizations developed by David Collis, 'Managing the Multi-Business Company', teaching note, Harvard Business School; McKinsey & Co. 'Corporate Centre Design', *McKinsey Quarterly*, 1991, No. 3; Bain & Co., internal corporate strategy practice document, on 'The Role of the Centre'.

In each of these areas, it is possible for parent companies to create value. Often, however, these areas of influence do result in value destruction (see Figure 19.1).

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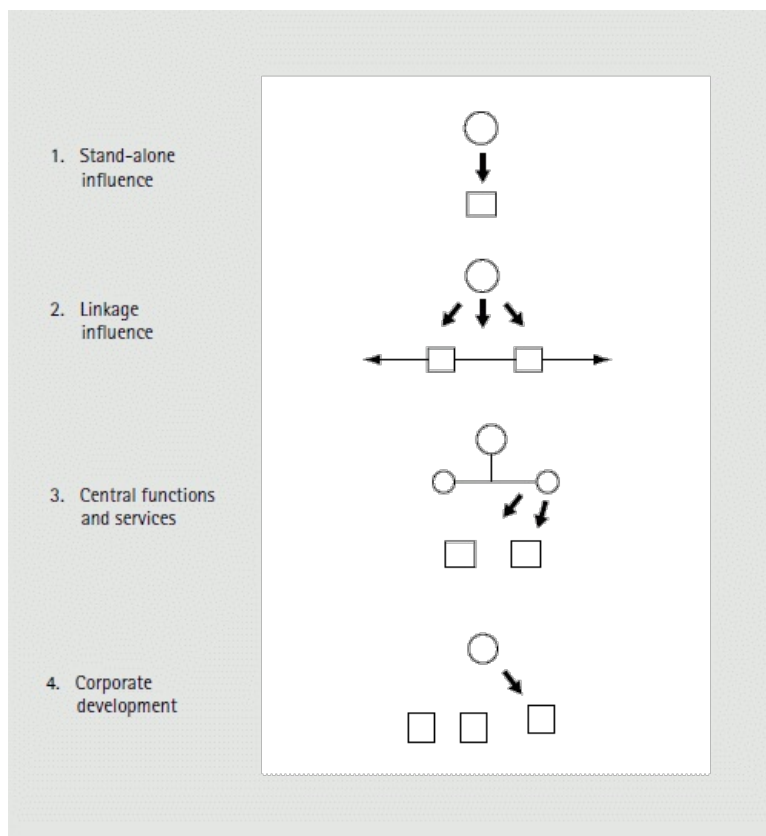


Figure 19.1 Four ways in which parents attempt to create value

19.2.1 Stand-Alone Influence

After the 1970s oil crisis, many of the oil majors decided to diversify into new businesses, which would provide more growth and opportunity than their core oil businesses. A popular new area was minerals, which was seen as drawing on skills in natural resource exploration and extraction that were related to their base businesses. In the event, almost all the oil companies have found that they destroyed shareholder value through their minerals diversifications. The root cause of the problem was that parent company managers from the oil industry did not understand the subtle differences between the oil businesses and the minerals businesses, and ended up by influencing the strategies of their minerals businesses in ways that caused them to perform worse, not better.

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For example, we were told by a manager who had been part of British Petroleum's (BP's) minerals business: 'The problem was that the BP managing directors couldn't really get to grips with the minerals business or feel that they understood it. There was always that vestige of suspicion about the business, that in turn led to a temptation to say "no" to proposals from the business, or, alternatively, if they said yes, to say yes for the wrong reasons.' The impact on performance was dramatic. During the mid-1980s, the minerals businesses of Atlantic Richfield, BP, Exxon, Shell, and Standard Oil had an average pre-tax return on sales of -17 per cent, while the average independent minerals companies (i.e. companies not parented by the oil majors) achieved a positive return on sales of 10 per cent.

This is an example of what we call stand-alone influence. Stand-alone influence is about the parent's impact on the strategies and performance of each business in the parent's ownership, viewed as a stand-alone profit centre. All parents exert considerable stand-alone influence on their businesses. At a minimum, they are involved in agreeing and monitoring performance targets, in approving major capital expenditures, and in selecting and replacing the business-unit chief executives. These activities, in themselves, are powerful influences on the businesses. Many parents, however, go further, exercising influence on a wider range of issues, such as productmarket strategies, pricing decisions, and human resource development. While corporate parents can create value through stand-alone influence, they often destroy value instead. By pressing for inappropriate targets, by starving businesses of resources for worthwhile projects, by encouraging wasteful investment, and by appointing the wrong managers, the parent can have a serious adverse effect on its businesses. The potential for value creation must therefore always be balanced against the risk of value destruction.

19.2.2 Linkage Influence

Linkage influence can be just as destructive. Through linkage influence, the corporate parent seeks to create value by fostering cooperation and synergy between its businesses. But the search for linkages and synergies so often leads to problems that Guy Jillings, Head of Strategic Planning of Shell International Petroleum, has coined the term 'anergy'. He believes that avoiding anergy is often a more essential goal than pursuing synergy.⁴

⁴ Most authors on the topic of synergy have commented that it frequently fails to occur in practice. For example, Porter 1985; Kanter 1989; Wells 1984.

The problem of anergy is illustrated by a global consulting company which had made acquisitions in two new areas of consulting services to add to its traditional core. Senior managers believed that synergy could be created in a number of ways. First, economies of scale could be achieved by sharing back-office systems such as

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client billing and data processing. Second, a more powerful identity could be established by sharing a brand name. Third, more business could be generated by appointing client managers for the company as a whole who could deepen client relationships, coordinate approaches, and cross-sell a broad range of consulting services.

In reality, the pressure for linkages nearly destroyed one of the acquisitions and hampered the efforts of all the other businesses. The shared billing system was complicated by the different needs of each business; after several million dollars of development cost, a compromise solution was reached which most units felt was inferior to their original systems, and which was no cheaper to run. Attempts at joint branding were abandoned because the individual brands were each strong and associated with particular services, whereas the amalgam brand was hard for clients to relate to, and was rejected by staff who felt loyal to the brand values of the specific organization they had joined. Cross-selling was not increased by the new layer of client managers, who were insufficiently familiar with the full range of services available. Worse still, clients resented the imposition of a gatekeeper between them and the specialist service providers they were used to dealing with, and few valued the supposed advantages of one-stop shopping. Eventually, poor performance forced the company to drop many of its linkage initiatives and to reaffirm clearly distinct lines of business.

In many companies, the problems associated with linkage initiatives have made business managers so cynical about the efforts of their parent that they deliberately conceal linkage opportunities. To avoid the risk of parental intervention, managers in these companies prefer to do business with outsiders rather than with insiders.

19.2.3 Central Functions and Services

Parents can also destroy value through establishing central functions and services that undermine, rather than support, business effectiveness. This is not simply a matter of excessive overhead costs. It is also about delayed decisions and substandard or unresponsive support. ABB's chief executive, Percy Barnevik, has acquired many companies where these problems had been rife. His dramatic response in cutting headquarters staff has led to an ABB rule of thumb: by taking out 90 per cent of the centre, you can usually improve business performance as well as save cost. This rule has been applied to Brown Boveri's headquarters, and to acquisitions such as Combustion Engineering in the United States and Sternberg in Finland. Typically, Barnevik removes 30 per cent of the central functions and staff on the grounds that they are adding little except cost. A further 30 per cent are set up as service units that must compete directly with outside suppliers. If they are cost-effective,

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their services are purchased. Otherwise, they rapidly shrink or are disbanded. Thirty per cent of the central staff are put under the direct control of the individual businesses. If they fulfil a valid role in the business, they stay. If not, they are replaced or fired.

This approach addresses one of the main problems of central functions and services: that their privileged status protects them from the rigours of the market. By treating the divisions as clients whose business must be won, service levels are sharpened and improved. Unless this sort of relationship exists, the hoped-for economies of scale in central functions often prove illusory, and their influence can hamper rather than help the businesses.

19.2.4 Corporate Development

The final way in which parents destroy value is through corporate development activities—acquisitions, divestments, alliances, business redefinitions, and new ventures. Many corporate parents believe that they create substantial value in their corporate development activities, for example by spotting opportunities to buy businesses cheaply, by creating new ventures that provide profitable future growth

opportunities, or by redefining businesses in ways that lead them to be more competitive in their marketplaces. We have found, however, that such initiatives frequently misfire. Parents overpay for acquisitions, support losing ventures, and redefine businesses in the wrong way. The weight of research evidence indicates that the majority of corporately sponsored acquisitions, alliances, new ventures, and business redefinitions fail to create value.⁵

⁵ There is a large literature on the poor record of acquisitions, alliances, and new ventures: see e.g. Porter 1987; or Franks and Harris 1989.

In particular, corporate histories are littered with stories of acquired businesses which turned out to be worth much less than expected, and so were sold subsequently for a fraction of the purchase price.

An extreme case concerns Ferranti, a medium-sized electronics company. During the 1980s, Ferranti performed well, developing a variety of sound businesses in defence electronics and other areas. However, in 1987, Ferranti paid \$670 million to acquire the US International Signal and Communication (ISC) Group, with a view to becoming a major player in international defence markets. In 1989 it was discovered that ISC had entered into various fraudulent contracts, which led to losses of around \$500 million for Ferranti. As a result, Ferranti was severely weakened and eventually forced into receivership after GEC had offered to buy the company for only one penny a share. A single acquisition brought Ferranti to its knees and wiped out all of the value created during the previous decades.

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19.3 Why Value Destruction Is So Common

While corporate managers recognize that mistakes can be made at the headquarters in the same way as they can be made at other levels of management, few would accept our proposition that many corporate centres are systematically destroying value. They point to economies of scale in financial reporting, fund raising, liaising with the shareholders, tax, and other areas. They identify the lower cost of debt that large companies can provide. They talk about the value of providing an informed challenge and second opinion to the narrow perspective of business-unit managers. They refer to the task of allocating resources across the portfolio. Clearly, they argue, the corporate centre has a valid role and can contribute to performance.

We agree. There are economies of scale. The cost of debt can be lowered. An informed second opinion and a wise allocation of capital can add value. However, for reasons we will explain, the net influence of the parent in many companies is still negative. Inappropriate interference on linkage issues can outweigh the economies of scale in financial reporting. Wise resource allocation decisions can be fewer than foolish ones. Damage from over-ambitious or under-ambitious performance targets can be more significant than the benefits of lower interest on debt. Valuedestroying influences can be greater than value-creating ones. Why is this so?

The reason why value destruction occurs is that it is hard for parent organizations to influence their businesses in ways that improve on the decisions of the managers running the businesses. As we shall see from examining each of the four ways parent organizations affect value, it is not as surprising as it might seem that the parent's influence will make decisions worse, not better. In fact it is only under particular conditions that we can expect the parent's influence to be positive.

19.3.1 The 10% versus 100% Paradox

With stand-alone influence, the assumption is that parent managers know better what is right for a business than the unit's own managers. Is this a realistic assumption? In a multi-business organization, managers in the parent can devote only a small percentage of their attention to the affairs of each business, while the managers in the businesses are fully engaged in their own units. Why should the parent managers, in 10% of their time, be able to improve on the decisions being made by competent managers who are giving 100% of their efforts to the business? The idea that part-time managers at one remove (or more) will be able to enhance the performance of the business's own dedicated management is, in some sense, paradoxical. We refer to this as the '10% versus 100%' paradox.

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The 10% vs 100% paradox is compounded by principal/agent problems arising from placing a parent organization between the business managers and the providers of capital (see Jensen and Meckling 1976; Baiman 1982). In a hierarchy, the business-level managers are not motivated primarily by the objective of maximizing the performance of their businesses. They are motivated primarily by the objective of gaining favour, rewards, and career opportunities from their parent bosses. Unless the parent can mimic the influence of the providers of capital, the ownership relationship will result in different motivations and different objectives. Altering the motivations and objectives of business-level managers is one of the ways the parent can add value, but it can also result in value destruction as the business managers play a game of cat and mouse, hiding information and disguising outcomes, to persuade parent managers that they are high-quality individuals.

19.3.2 The Enlightened Self-Interest Paradox

With linkage influence, the assumption is that the parent managers can identify benefits of linkages between businesses that would not be perceived or implemented by the businesses' own managers. But, given the business managers' much greater understanding of their businesses, it is likely that they will have more knowledge about linkage opportunities and how to realize them than parent managers do. The difficulty of value creation from linkage influence therefore stems from another paradox. Why should the parent managers be able to perceive linkage opportunities, if they have not already been perceived as a result of mutual self-interest on the part of energetic business-unit managers? We call this the 'enlightened self-interest' paradox. The existence of this paradox explains why corporately inspired synergy initiatives often prove unsatisfactory.

19.3.3 The Beating the Specialists Paradox

With central functions and services influence, the assumption is that central staffs can provide better functional guidance, or better value-for-money services, than are available from businesses' own staff or from outside suppliers. But the trend in many large companies is now to decentralize or outsource central functions and services. This trend brings out another paradox. A specialist, external supplier stands or falls by its ability to provide the most responsive and cost-effective expertise in its chosen field, whether it be market research, manufacturing advice, or strategic planning. Why should an in-house staff department be able to create more value than specialist competitors who undertake similar tasks and services on

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a third-party basis? It is this 'beating the specialists' paradox that has led many companies to disband large parts of their corporate functions and services.

19.3.4 The Beating the Odds Paradox

Finally, with corporate development activities, the assumption is that the parent can buy businesses for less than they are worth, sell businesses for more than they are worth, and launch new ventures or redefined businesses in ways that increase value. Yet the odds are against this happening. Given that the market for buying and selling businesses is sophisticated, and the competition to develop businesses in new areas is usually fierce, why should the parent expect to be able to create value through corporate development? We refer to this as the 'beating the odds' paradox.

These four paradoxes—10% vs 100%, enlightened self-interest, beating the specialists, and beating the odds—explain why it is hard to create value from the corporate centre; nevertheless, the best corporate parents do create substantial value. What conditions must exist to overcome the paradoxes? What conditions lead to value creation?

19.3.5 The Conditions for Value Creation

The first condition is that the businesses in the company's portfolio must have some opportunity to improve performance with which the parent company can help. If the businesses are performing at their optimum, there is no opportunity to add value. The parent can only add something if the business offers a 'parenting opportunity'.

Second, the parent must possess some special capabilities or resources that will enable it to improve performance and exploit the parenting opportunity. These parenting characteristics are the engine of value creation.

Third, the parent must have a sufficient understanding of the critical success factors in the business to make sure that it does not influence the business in inappropriate ways. Managers often refer to this understanding as having a 'feel for the business'. We have observed that it can take a parent manager a number of years, typically including experience of a business over a complete economic cycle, before a sufficient feel develops.

With these three conditions, we can see some analogy between the roles of the corporate parent and of medical experts. Medical specialists can only make a contribution if there are people whose health could be improved. Without this 'opportunity', their expertise is not valuable. To make a contribution, the medical expert must have skills and resources that match the patient's needs. An ear, nose, and

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throat specialist is unlikely to contribute much to a patient with depression. Moreover, a specialist on depression must understand sufficiently about the overall health of this patient to be sure that the drugs he prescribes will not have side effects that will make the patient worse off on balance. For the medical expert to succeed, the same three conditions must exist: there must be an opportunity, the

expert must have skills and resources that fit the opportunity, and the expert must understand the patient well enough to avoid negative side effects that outweigh the beneficial influences.

19.4 Successful Parent Companies

Successful parent companies not only meet these basic conditions for value to be created, they are particularly good at creating value. The best parents have unusual insights about certain kinds of parenting opportunities and focus their influence and activities on creating value from these insights. They have what we call 'Value creation insights'. The best parents also have special skills and resources that fit particularly well with their value creation insights. These skills and resources are normally superior to those of other similar parents. They have what we call 'distinctive parenting characteristics'. Finally, the best parents limit their portfolios to businesses where their parenting will create a substantial amount of value. They are more effective at doing this because they have clear criteria defining which businesses fit well with the parent and which do not. They have what we call 'heartland' criteria.

19.4.1 Value-Creating Insights

At the time of our research, ABB, Canon, and Emerson were good illustrations of these concepts. They represented a cross-section of the successful diversified companies in our research sample. All three were recognized as world leaders and exemplars of their particular management styles. All three also had excellent performance records (Table 19.1). We will, therefore, illustrate our concepts by explaining the value creation insights these companies had, the distinctive parenting characteristics that supported their insights, and the heartland criteria these companies used to limit their portfolios. Readers should recognize, however, that things change. Insights that are valuable in one decade may not be valuable in the next. Hence these three companies, despite having exemplar parent organizations in the late 1980s and early 1990s, may become problem companies ten years later.

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Table 19.1 Company backgrounds

	ABB	Canon	Emerson
Corporate headquarters	Switzerland	Japan	USA
Origins	Merger of ASEA (Sweden) and Brown Boveri (Switzerland)(1988)	Research laboratory focusing on precision optics (1933)	Electrical manufacturing (1890)
Industries	Power plants, power transmission, power distribution, transportation, general industrial	Business machines, cameras, other optical equipment	Electrical-electronic products and systems such as motors, process control instruments, appliance components, etc.
Size (1994) sales(\$bn)	30	15	8
employees (000)	210	67	69
Performance (10 years)			
sales growth NA*		250%	200%
earnings growth	200%**	150%	200%
share price growth	300%**	150%	300%

* ASEA and Brown Boveri merged in 1988.

** Based on ASEA (ASEA owns 50% of ABB).

One value creation insight at ABB involved linking nationally focused businesses into a global network: rationalizing production across countries, cross-selling products, sharing technical developments, and transferring best practice. ABB focused much of its parental influence on getting previously isolated national managers to work together across borders.

A second value creation insight at ABB concerned raising the commercial skills and orientation of managers. In large, engineering-dominated companies, managers can become more interested in their engineering prowess and in being involved in prestigious projects than they are in profit. Such companies often do not calculate profit except at high levels of aggregation. Most units are cost centres. The ABB parent discovered that commercial performance could be transformed if the profit ethic could be driven into the hearts of the managers and engineers in the local businesses. Many of ABB's parenting activities are, therefore, focused on achieving this value-creating objective.

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A third value creation insight at ABB concerned overheads. Proud, previously rich, and nationally prominent companies have a tendency to build large central overheads that can cost as much as 20 per cent or more of profit. Much of ABB's parent activity, in the first year or two following an acquisition, was designed to reduce these overheads and release the value they had trapped. In later years ABB maintained the pressure on overheads ensuring that excessive costs did not build up again.

In Canon, one value creation insight was about developing new products. Technologists and product developers normally see themselves within the confines of a particular technology or product type. This puts bounds on their thinking defined by the accepted wisdom of the areas they are working in. Canon managers, however, discovered that it is possible to develop more creative products by blending and mixing technologies in, for example, fine optics and precision mechanics, and by challenging product development teams to produce customer solutions well beyond the scope of existing products.

Canon's second value creation insight was based on another parenting opportunity resulting from the bounded thinking of managers. In companies with traditional business-unit structures, managers are influenced by the competitors and critical success factors of the industry they see themselves competing in. They are influenced by the accepted industry logic and, therefore, play into the hands of the industry leaders. Canon managers discovered that it is possible to break out of the accepted logic and develop winning strategies by avoiding traditional businessunit structures and challenging managers to find new ways of competing.

Emerson's value creation insights were based on sharpening the strategic thinking of sound and profitable businesses. Emerson found that, in certain electrical and electronic businesses, it could push profit margins up from 5 to 10 per cent to in excess of 15 per cent at the same time as gaining market share. These improvements stemmed from re-examining of competitive positions and growth opportunities, detailed analysis of the components of cost and revenue in the businesses, and Emerson's special focus on manufacturing cost reductions. Emerson drove these improvements through business strategy reviews, which had been developed to focus on the issues of greatest potential. Emerson is by no means unusual in conducting strategy reviews with its businesses: what is unusual is the way in which the process zeroes in on opportunities to improve performance, rather than simply being a routine re-examination of the businesses' plans.

ABB, Canon, and Emerson had value creation insights that provided a focus for the parent's activities. All three companies had clarity about how the parent can create value. This clarity was built on insights they gained about opportunities to build or improve businesses and about how the parent can contribute. The insights affected the focus of parenting activities, the design of the parent organization, and the type of businesses in the company's portfolio. At the time of writing the parent organizations of all three companies are still partly driven by these insights. But they

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are also influenced by new insights developed in the last ten years. ABB has developed new insights about growing businesses in Asia; Emerson has developed insights about developing new businesses; and Canon has developed insights about globalization. What distinguishes successful companies is that they have insights (see Box 19.1).

Box 19.1 Value creation insights

Value creation insights are at the root of all successful corporate-level strategies. They typically involve understandings by parent managers about how to improve the performance of businesses. Insights are based on unique knowledge or experience of:

- (1) reasons why certain kinds of businesses have performance problems or fail to maximize their potential;
- (2) ways in which a parent organization can influence the businesses so as to raise performance.

Value creation insights are extraordinarily diverse. Each of the successful companies we researched had its own, different value creation insights.

Value creation insights are about major areas of improvement: raising performance by 50% or 100%, not just 10%; doubling the value of a business, not just making marginal differences. Value creation insights are not, therefore, about providing a wise second opinion, gaining economies of scale in managing shareholder relationships or raising debt 10% cheaper. Value creation insights are about taking return on sales from below 10% to above 15% (Emerson), doubling sales volumes through linkages into an international network (Unilever and ABB), creating new businesses out of leveraging technologies (Canon and 3M), doubling shareholder value by buying mixed portfolios and unbundling them (KKR).

Value creation insights are linked to specific sorts of businesses that have underperformance opportunities and critical success factors which the parent managers understand. They are, therefore, expressed in terms such as: 'In businesses that make higher added value, safety critical engineering components and systems, a parent can create value by putting together international businesses out of previously separate national entities'; or 'In long-term, technically complex natural resource businesses, a parent can create value by transferring technical and functional expertise around the world'. Thus, the general form of a value

creation insight is: 'In certain sorts of businesses, a parent can create value by...'. The value creation insight identifies both the businesses in which the parent can create value, and the means by which it does so.

Value creation insights are not always explicit. Sometimes they are embedded in the parent organization's culture and way of working. What is important is that they describe how the parent's corporate strategy leads to major value creation.

The final point about value creation insights is that they often take years of experience to develop and refine. Sometimes they appear to have sprung newly formed from the mind of a visionary chief executive or from a strategic planning process. However, more normally, they emerge from a long process of learning and experience.

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19.4.2 Distinctive Parenting Characteristics

The second feature of successful diversified companies is their distinctive parenting. Emerson's distinctive parenting characteristics start with its planning process. At the heart of the process is the 'planning conference', an annual meeting between parent managers and businesses that is unusually combative and challenging. The degree of preparation done by both sides is unusual; the forty required charts and analyses are unusual; and the expertise of Chuck Knight, Emerson's CEO, based on twenty years' experience with running these meetings and monitoring Emerson's kind of businesses, is unusual. It is through the planning conference that Knight tests the thinking and the goals of the businesses, pressing for improvements and helping to identify ways of achieving them. By design, the atmosphere is confrontational. 'Emerson is a contact sport,' commented one manager. 'Knight invites people to punch back. He takes positions to provoke a response and expects one.' The debates are often heated, but the parent managers have the skills to make them open and constructive. In the second half of the 1990s, Emerson's planning process focused more on growth and less on profit margin and Chuck Knight developed a new process, 'the growth conference'. This reflected the new insights about growing businesses.

Canon has many distinctive parenting characteristics. Probably most important is Canon's uncompromising corporate commitment to developing its core technologies that goes back to its roots as a research laboratory. Professor Yamanouchi, previously a Canon employee, explained, 'R&D drives Canon's strategic thinking and is central to Canon's behaviour. As an example, the medium range plan of each product group is drawn up by the development centre of the product group. Canon's R&D staff, therefore, believe that their work is essential for the growth of Canon' (see Yamanouchi 1989). This commitment is linked to Canon's very large corporate staff which includes over 1,000 central research staff. Commitment to technology is also revealed in Canon frequently being among the top three companies registering new US patents.

Another distinctive parenting characteristic is Canon's ability to reduce rigidity in organizational boundaries by encouraging networking and cross-company link-ages. The organization operates as a 'hub and spoke' system, with matrix lines that bind the spokes together. At the centre there is a 22-man corporate executive committee which meets weekly, bringing together the central managers, the heads of product divisions, the heads of sales organizations, and the heads of functions. This level of contact is unusual and greatly helps the effective management of the matrix. Canon also has many other mechanisms, such as heavyweight task forces, product development teams, and career management processes, designed to bring people together and move them across functional and organizational boundaries.

ABB, our third example, also has distinctive parenting characteristics. Percy Barnevik, ABB's chief executive, developed his parenting approach by turning

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round ASEA in the late 1970s and early 1980s. ABB's 'lean matrix' of business areas and country managers topped by a corporate centre with around 100 staff has been written about frequently (see Taylor 1991; see also Kennedy 1992). It is designed to break previously monolithic, national companies into small, focused business units linked to similar units in other countries, but still benefiting from a strong national presence. Business area managers are part of the parent organization. They make decisions about rationalizing production across countries and spend their lives visiting business units to persuade unit managers to share technical developments, cross-sell products, and pick up on best practice.

Supporting this highly decentralized structure is a central monitoring and control system, Abacus, that provides profit statements and balance sheet information for every business unit and profit centre (5,000 in total). Units can compare themselves, and senior managers can rapidly identify anomalies or problem areas. This profit-focused information system combined with the small size of most business units, often less than 200 people and sometimes as few as 50, helps drive a commercial, profit-focused attitude into the culture of the lowest level engineer or manager. ABB's parenting systems and structures are distinctive and are linked to the value creation insights that provide a focus for all of ABB's parenting activities.

Successful parent companies, therefore, have a clear focus for their parenting activities, based on value creation insights. They also have

distinctive parenting characteristics that enable them to create the value they focus on. In addition, successful companies have a portfolio of businesses that fit with their parenting. They are clear about the criteria that define what we call their 'heartland businesses', the businesses that will benefit most from the centre's parenting influence, and they focus their portfolios on such businesses. In these businesses, they are able to create high value and to avoid value destruction.

19.4.3 Heartland Businesses

Emerson's heartland is businesses that manufacture electrical, electromechanical, or electronic products of medium technology and capital intensity where there is potential to raise performance. Emerson avoids consumer markets: 'Our ability to strategize in consumer products is less good. We like a slower rhythm. We don't like advertising and short product cycles.' Canon's heartland includes businesses where precision mechanics, fine optics, and microelectronics are important technologies, where technical innovation and creative market positioning are important sources of advantage, and where there is a sufficiently large market to justify intensive technical development. ABB's heartland includes engineering-intensive, electro-technical businesses where there is potential to create linkages across national borders and which involve selling complex systems to large industrial companies or to governments.

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19.5 Developing Successful Corporate Strategies

ABB, Canon, and Emerson were, and at the time of writing still are, successful parent companies with value-creating corporate strategies. They have value creation insights and distinctive parenting characteristics, and by focusing on a clearly defined heartland they avoid the value-destroying pitfalls that afflict many companies. But how can other companies that are currently less successful develop similarly powerful corporate strategies? We will end this article by proposing a criterion, parenting advantage, that should guide companies, and a framework that can be used to structure their search for successful corporate strategies.

We have argued that success is dependent on the value created or destroyed by the parent organization. By doing so we are identifying the parent as an organization that is separate from the business units, and that stands between the business units and the investors. This separate organization needs to justify its existence as an intermediary. Moreover, the parent organization is in competition with other parent organizations and other intermediaries for the ownership of businesses. To succeed, a parent organization needs to create value and it needs to be better at creating value than rivals—it needs to have what we call 'parenting advantage'.

19.5.1 Parenting Advantage

Parenting advantage is a criterion for guiding corporate strategy development, in the same way that competitive advantage is a criterion for guiding business strategy development. In business strategy, the key objective is to outperform competitors, and the concept of competitive advantage has proved immensely useful in assessing and developing business strategies. In corporate strategy, the key objective is to outperform rivals and other intermediaries, and the concept of parenting advantage has similar power to help assess and develop corporate strategies.

In the increasingly active market for corporate control that exists in Anglo-Saxon economies, parenting advantage is the only robust logic for a parent company to own a business. Without parenting advantage, a company is potentially exposed to the hostile attentions of other, superior rivals, and can often enhance shareholder value simply by selling businesses to other owners. Parenting advantage is the goal and criterion that should guide both the selection of businesses to include in the portfolio and the design of the parent organization.

As companies search for parenting advantage, they need to analyse and assess a number of inputs. They need to understand the strengths and weaknesses of the existing parent organization: what are the current characteristics of the parent?

end p.579

They need to understand the nature of the businesses currently owned by the parent: what are the parenting opportunities in these businesses? They need to know enough about rival parents to be able to assess which parents might be better owners of any of the current businesses. Finally they need to understand the trends and possible scenarios for the future that might affect the other three inputs. Developing corporate strategy therefore, involves four inputs (Figure 19.2).

These inputs do not provide answers. Rather they provide understandings that are useful in the search for value creation insights. This search is an essentially creative process guided by the objective of parenting advantage: the strategist is searching for a strategy that will give the company parenting advantage. The outputs of this strategy development process are decisions about which businesses to include in the portfolio and decisions about how the parent organization should be designed.

19.5.2 Five Steps towards a Better Strategy

A useful first step in developing a new corporate strategy is to identify areas where the parent is currently destroying value. By divesting businesses or changing the parent's behaviour, these situations can be avoided. For many companies this first step greatly enhances shareholder value.

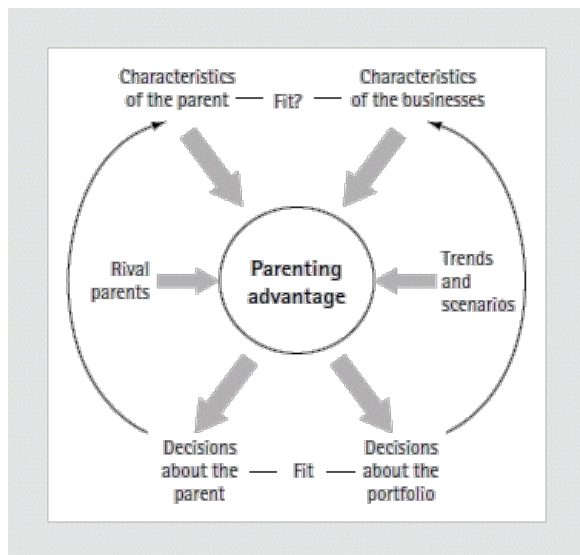


Fig. 19.2 Corporate strategy framework

end p.580

The second step is to start searching for 'parenting opportunities'. These are opportunities to improve performance through the involvement of a parent company. For example, a business may have low levels of manufacturing skills because it is dominated by marketing managers. A parent company with a manufacturing capability can, therefore, help redress the balance. Or a business may be too small, causing its costs to be too high. By combining it with another business, a parent company can cure the scale problem. Box 19.2 describes some of the common reasons why businesses underperform in ways that provide parenting opportunities.

The third step is to assess whether and how the company can grasp the parenting opportunities. This involves creating groupings of businesses with similar parenting opportunities. Each grouping is then assessed for its fit with the parent organization. Could the capabilities and resources in the parent fit with the parenting opportunities in the group of businesses? If fit does not currently exist, the

Box 19.2 Typical reasons for parenting opportunities

1. **Wrongly defined business.** The managers in the business have a wrong conception of what the business should be and, therefore, have too narrow or too broad a product market scope, and too much or too little vertical integration. The trend to outsourcing and alliances is changing the definitions of many businesses, creating new parenting opportunities.
2. **Size and age.** Old, large, successful businesses often build up bureaucracies and overheads that are hard to eliminate from the inside. Small, young businesses may have insufficient functional skills, managerial succession problems, and lack of financial resources to ride a recession. In both cases parenting opportunities exist.
3. **Temptations.** Some businesses tempt their managers to make mistakes. Mature businesses often lead managers into over-diversifying. Businesses with long product cycles cause managers to rely too much on old products. Cyclical businesses cause managers to over-invest in the upswing. In all cases there are opportunities for a parent to provide corrective influence.
4. **Linkages.** Where businesses can create value through linking with other businesses, blockages often exist preventing this from happening between independent companies. Parent organizations can remove these blockages.
5. **Major changes.** Industries undergoing change, for example from local to international or from single-product to system, require managers with real expertise at making these changes. A parent organization that develops this expertise can provide important assistance to businesses it owns.
6. **Special expertise.** Special expertise can be created by exposing managers to a number of businesses either facing

similar strategic issues, such as declining sales or the need to professionalize management, or involved in similar products and markets, but in different countries. A parent organization owning these similar businesses can build the expertise.

end p.581

question is what changes would be necessary in the parent organization to create a fit. Achieving a good fit may take a number of years of searching for parenting opportunities and developing capabilities and resources to match.

Once a concept of parenting advantage has been developed and the basis for a corporate strategy agreed, the fourth step is to capture this in a parenting advantage statement (see statement for ABB in Box 19.3). This statement identifies the value creation insights and distinctive parenting characteristics on which the strategy will be built, and the heartland businesses within which parenting advantage will be sought. The parenting advantage statement captures the essence of a value-creating corporate strategy, and provides a succinct view of how and why parenting advantage will be achieved.

The fifth step is to convert the chosen strategy into an action plan, involving decisions about the parent organization and decisions about the portfolio of businesses. The implementation of these decisions will, in turn, feed back into changes in the parenting characteristics and the business characteristics. The ongoing corporate strategy development process thus requires continuous adjustment of the parent company and the portfolio of businesses to bring about a closer fit, and to adjust to unplanned changes in any of the important factors.

Box 19.3 ABB: parenting advantage statement (mid-1990s)

Value creation insights	<ul style="list-style-type: none">• Most companies make direct trade-offs between centralization and decentralization, or scale and focus.• There are opportunities for a parent that can combine the various benefits in new ways.• Many European engineering businesses have been relatively fragmented in global terms. Consolidation can reduce costs while increasing coverage and global muscle.• Many engineering businesses do not have a strong commercial focus, and are prone to increase sales volume and product range at the expense of margin. A parent can help redress the balance.
Distinctive parenting characteristics	<ul style="list-style-type: none">• Ability to combine decentralized small business units into a global network through the ABB matrix structure.• Systems and corporate initiatives that focus on profitability, customer needs, and simplification of operations.• Ability to integrate acquisitions and improve their performance rapidly.• Ruthless approach to cutting of overhead costs.
Heartland businesses	<ul style="list-style-type: none">• Engineering-intensive, electro-technical businesses, usually involving complex integration into systems.• Customers are large industrial or governmental institutions.

end p.582

For companies whose corporate-level plan has traditionally been little more than an aggregation of the plans of the businesses, together with a page or two describing the company's overall ambitions and objectives, the corporate strategy development process we are suggesting is radically different. It puts the role of the parent in creating, and destroying, value at centre stage; it insists that decisions that impact the capabilities and resources of the parent are just as essential components of corporate strategy as portfolio choices; and it derives choices about the corporate strategy from assessment of their likely impact on net value creation and parenting advantage. As such, it forces companies to face up to the fact that they are likely to be destroying value in many of their businesses, and to search for ways in which they can become better parents for all of their businesses.

The parenting advantage framework can also lead to very different conclusions from other, more conventional theories of corporate strategy. For example, objectives such as portfolio balance, spread of risk, and growth take second place to parenting advantage. Decisions that improve balance, or increase spread of risk, or raise the rate of corporate growth cannot, in our view, be justified if they at the same time damage parenting advantage. Many of the large chemical companies that diversified away from bulk chemicals into specialty chemicals, in search of faster growth, more spread, and greater balance, have subsequently regretted their decisions. They have found that they were not able to parent the specialty businesses well, and that their results have therefore been disappointing. A focus on parenting advantage in corporate strategy development would have prevented many of these decisions.

19.5.3 Parenting Advantage versus Core Competences

Parenting advantage thinking has more in common with core competencies thinking (Prahalad and Hamel 1990). But there are important differences. The parenting advantage framework puts the emphasis on the capabilities and resources of the *parent* (parenting competencies), and the impact of these on the businesses. The core competencies logic does not distinguish so clearly between parent competencies and business competencies, and simply encourages companies to base their corporate strategies on competencies that are or could become common across the portfolio. As a result, the development of core competencies can sometimes conflict with the pursuit of parenting advantage. Texas Instruments, for example, attempted to exploit technical competencies it had developed in its semiconductor businesses in areas such as calculators, watches, and home computers. It failed in these new areas not because it did not possess the requisite technical skills, but because senior managers in the parent company lacked experience and skills in parenting such consumer-oriented businesses. Similarly, Minebea, the Japanese leader in miniature

end p.583

ball bearings, attempted to move into semiconductors, on the basis of its skills in precision manufacturing of miniature components. It has found, however, that this undoubted competence has not proved sufficient to allow it to become successful in the semiconductor business, and in 1991 it reported a loss of ¥5 billion from its semiconductor subsidiary. In both cases, although the diversifications drew on common technical competencies, they were not successful because the corporate centre lacked the appropriate parenting competencies to avoid the mistakes that were made.⁶

⁶ Similar arguments help to show why 'relatedness' is not a sufficient basis for corporate strategy. Different businesses maybe related in terms of technologies, markets, or customers, but the real issue is whether the corporate parent has the ability to add any value to the businesses. Relatedness does not necessarily mean that there are any parenting opportunities, or that the corporate parent has the skills or resources to realize any parenting opportunities there may be. We believe that it is for this reason that research to demonstrate that related corporate strategies lead to better performance than unrelated corporate strategies has proved somewhat inconclusive. See Rumelt 1974 for a basic statement of the 'relatedness' thesis, and Rumelt 1989 for a summary of the large body of subsequent research.

Conversely, corporate strategies that build on the capabilities and resources in the parent company, but do not involve the sharing of operating competencies between the businesses, can be less easy to understand from a core competencies perspective. BTR, the British-based industrial manufacturing company, voted best managed company in Britain in 1993, had a corporate strategy based on clear sources of parenting advantage, but it did not go in for sharing marketing, technical, or engineering skills across its businesses. BTR's success with a portfolio of more than 1,000 business units in more than fifty countries was not based on core competencies. Like Emerson, it was based on the influence the parent organization exerted to raise performance in its businesses. Interestingly in the second half of the 1990s after more than twenty years of success, BTR's strategy ran out of steam, its performance declined and it was taken over. Its market had become much more global. Its strategy of focusing on technical niches wilted as these niches disappeared at the hands of more broadly focused competitors. BTR's rags to riches to takeover candidate is a warning to all companies that the role of the parent needs to evolve as the environment changes.

19.5.4 The Role of the Parent and E-commerce

The explosion of e-commerce and e-ventures in 1999 and 2000 poses a particularly interesting challenge for the role of the parent and corporate-level strategy.

E-commerce ventures have characteristics that are very unlikely to fit easily with the characteristics of the parent company. A simple analysis might suggest that most companies, therefore, should ignore e-commerce ventures in order to avoid doing harm with inappropriate parenting. However, the logic of parenting is about relative advantage—parenting advantage.

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A company such as General Motors might rightly consider itself to be a poor parent for a new e-commerce venture, yet it may still be better than rivals. As a result, most companies have launched major efforts to develop new e-commerce businesses.

As soon as these businesses are successfully launched and able to develop on their own, it usually makes sense to spin them off into a separate company. While the parent company may have had parenting advantage in launching e-commerce ventures, such as General Motors' component purchasing alliance, it is likely to have a net negative impact on the venture once it is launched: the characteristics misfit becomes more of an issue once the initial resource support has been added. Not surprisingly it is common for companies with successful e-ventures to demerge them and float them as independent companies.

19.6 Summary

The parenting advantage framework represents an approach to the issues of corporate strategy that not only explains the past but also helps with today's challenges. It helps corporate parents avoid common corporate strategy mistakes, and discover ways of moving forward that increase the probability of success. This chapter has pointed out why it is so hard for corporate parents to add value to a portfolio of different businesses. It has also shown how some companies like ABB, Canon, and Emerson succeed despite the difficulties.

The central message is that corporate-level strategy should be built on insights that corporate-level managers have about how to create value from owning a portfolio of businesses. Without such insights, the corporate level is likely to destroy more value than it creates; the company is better broken up into separate businesses.

References

Baiman, S. (1982). 'Agency Research in Managerial Accounting: A Survey'. *Journal of Accounting Literature*, 1: 154–213.

Franks, Julian, and Harris, Robert (1989). 'Shareholder Wealth Effects of Corporate Takeovers: The UK Experience'. *Journal of Financial Economics*, 23: 225–50. [Link](#)

Goold, Michael, Campbell, Andrew, and Alexander, Marcus (1994). *Corporate-Level Strategy: Creating Value in the Multi-Business Company*. New York: John Wiley.

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Green, Sebastian, and Berry, Dean F. (1991). *Cultural, Structural and Strategic Change in Management Buyouts*. Basingstoke: Macmillan.

Jensen, Michael (1991). 'Corporate Control and the Politics of Finance'. *Journal of Applied Corporate Finance*, 4/2 (Summer): 13–33. [Link](#)

— and Meckling, W. H. (1976). 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure'. *Journal of Financial Economics*, 3: 305–60. [Link](#)

Kanter, Rosabeth Moss (1989). *When Giants Learn to Dance*. London: Simon and Schuster.

Kennedy, Carol (1992). 'ABB: Model Manager for the New Europe'. *Long Range Planning*, 24/15: 10–17. [Link](#)

Porter, Michael (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

— (1987). 'From Competitive Advantage to Corporate Strategy'. *Harvard Business Review*, May–June: 43–59.

Prahalad, C. K., and Hamel, Gary (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, 3 (May–June): 79–93.

Rumelt, Richard P. (1974). *Strategy, Structure and Economic Performance*. Boston: Division of Research, Harvard Business School.

— (1989). 'Research and Corporate Diversification: A Synthesis'. *Strategic Management Journal*, 7 (Nov./Dec): 523–51.

Taylor, William (1991). 'The Logic of Global Business: An Interview with ABB's Percy Barnevik'. *Harvard Business Review*, Mar.–Apr.: 90–105.

Wells, John (1984). 'In Search of Synergy'. Ph.D. diss., Harvard University, No. 8502578.

Yamanouchi, Teruo (1989). 'Breakthrough: The Development of the Canon Personal Copier'. *Long Range Planning*, 22/5: 11–21. [Link](#)

Young, David, and Sutcliffe, Brigid (1990). 'Value Gaps—Who is Right?—The Raiders, the Market or the Managers?'. *Long Range Planning*, 23/4: 20–34. [Link](#)

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20 Mergers and Acquisitions

Motives, Value Creation, and Implementation

Richard Schoenberg

20.1 Introduction

MERGERS and acquisitions (M&A) provide a popular means of achieving rapid growth and market entry. As we entered the new Millennium, companies were spending in excess of three trillion US dollars annually on over 30,000 M&A transactions, equivalent to the completion of one deal every 17 minutes. The objectives of this chapter are to explore the motives underlying this form of activity, to review the empirical evidence on M&A performance, and to discuss the factors determining acquisition outcome from a practical, yet research-based, perspective. The material is presented in six main sections: Acquisition Activity and its Drivers, Firms' Motives for Acquisition, Acquisition Performance, Value Creation within Acquisitions, Post-Acquisition Integration, and Employee Resistance to Acquisition.

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20.2 Acquisition Activity and its Drivers

An acquisition may be defined as the purchase by one company, the 'bidder', of a controlling interest in another company, the 'target'. Typically, the bidding firm offers either cash or its own shares in exchange for the shares of the target company. Once the acquisition is completed, the bidding company controls all of the assets, both tangible and intangible, of the target entity and for this reason acquisitions are often referred to as takeovers.

In contrast to acquisition, a merger should be viewed as a combination of two previously separate organizations rather than a takeover of one by the other. A merger involves two companies, often of approximately similar size, coming together to combine all of their assets. The result of a merger is the formation of a new legal entity that encompasses the combined assets of the two previously independent companies. Shareholders in the two merging companies become the joint owners of the new entity. The merger of Glaxo Wellcome and SmithKline Beecham, for example, resulted in shareholders of both companies receiving new share certificates in the combined entity, Glaxo SmithKline.

However, while the terms 'acquisition' and 'merger' do have precise meanings in certain contexts, e.g. legal structures, they generally share common motives and criteria for success and therefore the terms are often used interchangeably in practice. In the interests of simplicity, the terms will also be used synonymously within this chapter.

Mergers and acquisitions should be viewed as an alternative to strategic alliances and organic growth as a means of achieving corporate growth. While each of these three routes for growth have their relative merits depending on the precise competitive environment and resource base of the company concerned, acquisitions can hold the advantage of overcoming the relatively long time scales and potential resource constraints of organic growth and do not involve the dilution of control inherent within strategic alliances.

The importance that companies attach to acquisitions is evidenced by the high volume of transactions completed each year. Global M&A activity in the year 2000 represented a total investment by companies of \$3,500 billion. Figure 20.1 illustrates the strongly rising trend in acquisition activity seen throughout the 1990s. Transactions within Europe account for around one-third of the global total. One notable feature within European M&A is that cross-border company purchases now account for approximately half of all transactions as firms seek to build pan-European market positions to exploit the opportunities provided by the Single European Market.

Inspection of historical data on M&A activity reveals a number of periods of particularly high activity, which have become known as merger waves. Four merger

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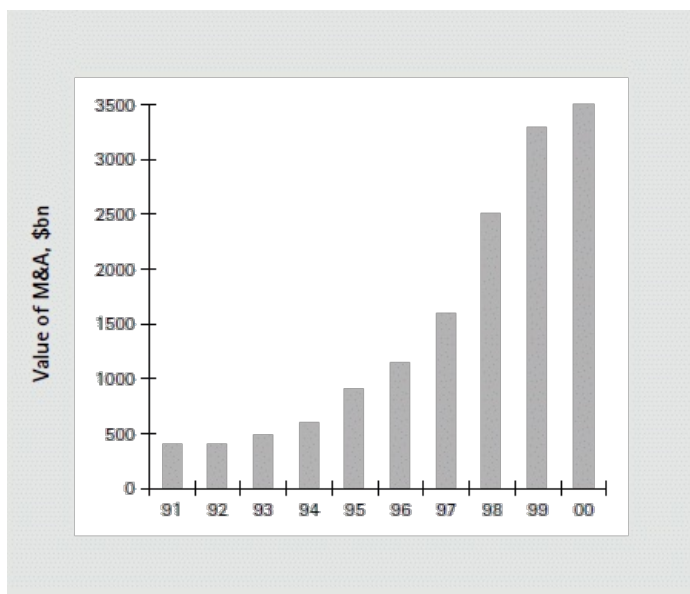


Fig. 20.1 Global merger and acquisition activity

waves have been identified with their peaks of activity, in terms of both number and value of transactions, occurring in 1899, 1929, 1968, and 1988. It is likely that the high levels of M&A experienced in the late 1990s represent a fifth wave. The principal drivers of these merger waves appear to be buoyant stock market conditions and low interest rates, with overall economic prosperity also exerting an influence. High share prices may make companies more inclined to undertake acquisitions in order to exploit their own increased p/e ratios (see Section 20.3.2 below) while the existence of low interest rates will reduce the cost of capital for debt-financed acquisitions. Certainly, both of these macro environmental factors were in place in the late 1990s with stock markets reaching record highs on both sides of the Atlantic and interest rates at historically low levels (Yagil 1996; Golbe and White 1993).

A further feature of these merger waves is that within each wave the acquisition activity tends to be concentrated within certain industry sectors. The high volumes of M&A in the late 1990s were particularly seen in the pharmaceutical, banking, and electricity sectors within the United Kingdom, while other sectors such as medical equipment, education, and ordnance experienced little or no activity. Studies into the industry-level determinants of acquisition activity have found that high rates of acquisitions tend to occur in industries that are characterized by good growth rates

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and low concentration ratios. The external regulatory climate is another important influence on both overall M&A activity levels and those within a particular industry. More permissive and laissez-faire national merger regulation policies in the United Kingdom and United States were a major catalyst to the 1980s merger wave. Similarly, the deregulation of certain UK industry sectors following their privatization, or as the result of EU legislative changes, has been a major cause of high M&A levels within the affected industries during the 1990s (Schoenberg and Reeves 1999).

20.3 Firms' Motives for Acquisition

Individual companies can have a wide range of motives for making an acquisition. These may broadly be classified into three groups: strategic motives, financial motives, and managerial motives.

20.3.1 Strategic Motives

A firm may undertake an acquisition in order to increase its penetration of an existing product market, to enter a new product market, to enter a new geographical territory, or to diversify away from its core business.

Acquisitions may be a particularly attractive means of achieving such strategic developments under certain conditions. In mature industries containing a number of established players, expansion or entry via acquisition can avoid the competitive reaction that can accompany attempts to grow by organic growth; rather than intensifying the rivalry by adding further productive capacity, the potential competition is purchased. In some industries economies of scale are central to a competitive cost structure and the purchase of an

enterprise that is already of the requisite scale can provide entry without the risk of starting at a cost disadvantage. In consumer goods industries this argument can be extended to securing distribution channels. A frequent barrier to a product range expansion or a move into a new product area is the premium attached to retailers' shelf space. Acquisition of a company that is already operating in the desired product area gives immediate access to an established distribution channel and its valuable shelf space in addition to its other assets such as manufacturing capacity and brand name. Similarly, the speed with which acquisitions can provide an established market position can be very useful if a firm believes it is a late entrant relative to its competitors into a particular product or geographic market.

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Companies may also undertake an acquisition because they wish to strengthen their existing resource base in a specific area or because they lack a particular competence that would be needed to develop their strategy by internal means. For example, when AOL merged with Time Warner it gained access to their back-catalogues of books and films, an asset that would have been virtually impossible to develop internally. Similarly, an acquisition might be used to gain a leading-edge product or process technology, an established brand name, access to a distribution channel, or managerial know-how. The latter factor can be especially relevant to cross-border acquisitions where the bidding company often lacks any operating experience in the overseas market and is keen to exploit the local market knowledge of the target firm's management team.

20.3.2 Financial Motives

Financially, acquisitive growth may be particularly attractive to a publicly quoted company if its price earnings ratio is relatively high compared to that of potential target companies. Under such circumstances an acquisition funded by shares can provide an immediate earnings per share enhancement to the acquiring firm, as the simplified data in Figure 20.2 illustrate.

This type of financial logic also extends to the acquisition of companies in order to exploit their accumulated tax credits or high balance sheet liquidity. A company making healthy profits may be attracted to acquire a target firm that has built up losses over a period of time. Once the acquisition is completed, and if the appropriate

	GoAhead plc p/e ratio = 30 share price = 300p	Steady plc p/e ratio = 10 share price = 100p	GoAhead +Steady
Profit after tax	£10m	£10m	£20m
Shares in issue	100m	100m	150m
Earnings per share	10p	10p	13.3p

GoAhead acquires Steady by way of 1 for 2 share offer (50% bid premium)

Fig. 20.2 Achieving earnings per share enhancement via acquisition using highly rated shares

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accounting conditions are met, the accumulated losses of the target can be set against the future profits of the acquirer so reducing the latter's corporation tax liability. Similarly, a firm that possesses a cash-rich balance sheet or is in a highly cash generative business may make an attractive takeover target for a company that has promising investment opportunities of its own. The acquirer is able to raise the rate of return on the target company's cash by investing it in its own business or to extend its own borrowing capacity by virtue of its enhanced cash flow position. This logic can even be reversed whereby acquirers with very strong balance sheets and an associated high credit rating take over a highly geared business and subsequently enhance profits by refinancing the debt within the acquired company at a lower interest rate.

Finally, some acquirers are motivated to make acquisitions in the hope that they can purchase a company at a bargain price and later sell it on, either whole or in its constituent parts, at a profit. While few, if any, pure 'asset-stripping' opportunities remain today, a modern variant is the practice of 'unbundling'. This involves acquiring an existing conglomerate, the stock market value of which is less than the sum of the individual constituent businesses. The businesses are then sold off piecemeal, creating a surplus over the acquisition cost.

20.3.3 Managerial Motives

Companies seeking shareholder approval for an acquisition invariably outline the strategic and financial logic of the transaction and link this with shareholder value maximization. However it has been suggested that some takeovers are undertaken in the interests of the firm's managers rather than its shareholders. An acquisition can help to advance a manager's own position through a rapid increase in the size of the company that the manager is responsible for, or through an increased dependence on the manager's particular skills via the purchase of a target business which is reliant on those skills (Berkovitch and Narayanan 1993).

Acquisitions that are motivated primarily by the self-interest of the managers of the acquiring firm are unlikely to be value maximizing for its shareholders. This is for two reasons. First, managers driven to make acquisitions for personal reasons may be less concerned to make a careful economic analysis of whether the acquisition has the potential to create shareholder value. Second, they may be prepared to pay a higher price for the acquisition than would be justified on purely economic grounds. Direct research into this 'empire building' theory of acquisitions is, of course, very difficult given the natural reluctance of executives to admit that personal motives may have played a role in a corporate decision. However, there is tangential support available from research which shows that firms with strong CEOs but weak corporate governance structures tend to pay higher premiums for

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their acquisitions. Where a strong CEO was also chairman of the board, or where the board of directors contained a low proportion of non-executive (external) directors, the acquisitions made by the firm exhibited higher bid premiums and inferior shareholder returns. Put more positively, the findings do also suggest that the presence of a strong board of directors can limit the ability of executives to pursue acquisitions for their own motives (Hayward and Hambrick 1997).

20.4 Acquisition Performance

The performance record of acquisitions is mixed at best. Research undertaken from a strategic management perspective has sought to establish how well acquisitions have performed from the viewpoint of the acquiring firm. A study by McKinsey & Company reveals that 43 per cent of international acquisitions fail to produce a financial return that meets or exceeds the acquirer's cost of capital; put another way 43 per cent destroy shareholder value for the acquiring firm (Bleeke and Ernst 1993).

Other studies have adopted broader definitions of performance, typically assessing the outcome of an acquisition against the original objectives set for it, both financial and non-financial. These assessments are usually carried out three to five years following the completion of the acquisition and are conducted using input from the acquiring company. Recent research along these lines indicate that 45 to 55 per cent of acquirers are neutral to highly dissatisfied with the overall performance of their acquisitions. Interestingly, the failure rates are similar for domestic and cross-border acquisitions and show no improvement over figures reported in 1974 from the first such study.

The subsequent fate of an acquisition may also provide an indication of its performance. Data show that approximately 45 per cent of all acquired firms are divested after an average of seven years under the ownership of the acquirer. Divestment has sometimes been taken to signify acquisition failure, but it could also indicate that an acquirer wishes to realize its profits following a successful restructuring of the acquired company. Indeed, research data further show that 40 per cent of divestitures are sold on at a price in excess of their acquisition cost, so this is perhaps not a particularly reliable performance measure (Kaplan and Weisbach 1992).

Separately, financial economists have investigated the impact of M&A on overall wealth generation. These researchers have typically relied on stock market measures of performance. Wealth generation is calculated from the change in the share prices of the bidder and target around the time of the acquisition announcement,

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appropriately adjusted for the expected change taking account of movements in the overall stock market. If one accepts market efficiency arguments, these 'abnormal returns' represent the market's accurate predictions of the changes in wealth that will result from the acquisition. The results of such studies reveal that, overall, acquisitions create negligible or only very small wealth gains. However, the distribution of any gain between the shareholders of the bidding and target companies is not even.

For example, one in-depth study of 429 British acquisitions completed between 1980 and 1990 found that target companies gained approximately 30 per cent in value, while shareholders in bidding companies lost approximately 5 per cent. In order to calculate the total wealth gain, these share price movements must be weighted by the companies' starting point market capitalizations. This revealed that the acquisitions had produced overall wealth gains of only 2 per cent, (reflecting the fact that the majority of bidders have significantly

greater market capitalizations than their targets). A further interpretation of this result is that at the level of the overall economy acquisition activity represents little more than a transfer of wealth from bidder to target shareholders (Sudarsanam, Holl, and Salami 1996).

Stock market based measures of acquisition performance do have some limitations from a purely managerial perspective. These measures are only applicable to cases involving publicly quoted companies, and, more importantly, only give information about investors' *expectations* as to the performance of the acquisition. Investors may have difficulty in making accurate judgements at the time of the acquisition announcement regarding the organizational issues that can influence an acquisition's outcome. Often issues such as the level of employee resistance or the choice of integration strategy only become apparent some months after the acquisition has been completed, and even then may not be immediately apparent to those external to the firm.

However, it is interesting to note that while the stock market based studies have tended to show that on average bidders' returns are negative, within this most do report that around 50 per cent of individual bidders show positive abnormal returns. This again confirms the summary finding that only approximately one in two acquisitions can be classified as successes for the acquiring company.

This mixed performance record has generated significant academic interest in M&A. A host of empirical studies have been conducted to investigate the role of a wide range of potential strategic, financial, and organizational factors that may have an influence on acquisition outcome. Taken together, these studies reveal that acquisition performance depends on three broad factors: the acquisition's potential for value creation, the post-acquisition integration of the acquired company, and the level of employee resistance to the acquisition. These primary determinants of acquisition performance are illustrated in Figure 20.3 and are discussed in turn in the three sections that follow (Larsson and Finkelstein 1999).

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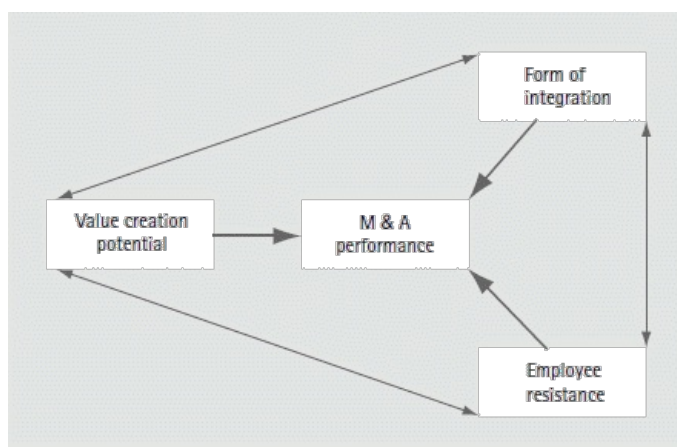


Fig. 20.3 Primary determinants of acquisition performance

20.5 Value Creation within Acquisitions

We have seen above that the share price of a target company tends to rise on the announcement of an acquisition. This is because the shareholders of a target company almost always demand a premium over and above the current share price before they will agree to accept a takeover offer. This premium is known as the 'bid premium'.

This is one area where there are important distinctions between the different types of M&A. The average bid premium for British takeovers involving publicly quoted companies has been around 35 per cent for friendly (agreed) acquisitions in recent years, whereas hostile acquisitions have attracted premiums of around 45 per cent. The higher premiums paid in hostile takeovers reflect both the greater resistance to the bid approach and that there may be competition amongst more than one bidder. This is one reason why hostile acquisitions have been found to perform less well than friendly transactions from the perspective of the acquiring company (Healy Palepu and Ruback 1997). In a pure merger it may be that no bid premium is required, as managers and shareholders of both parties wish the transaction to proceed and will continue to have a stake in the control and ownership of the

end p.595

merged entity. As yet, no research is believed to have directly compared the performance of pure mergers against traditional acquisitions.

Clearly, the need to pay a bid premium puts a major constraint on an acquirer's ability to generate positive returns for its own shareholders

as a result of an acquisition. In order to successfully create value the future cash flow stream of the acquired company has to be increased by an amount that exceeds the bid premium, plus the often overlooked costs incurred in integrating the acquisition and making the bid itself. To illustrate this point further let us take the simplified example of a company that has a pre-bid stock market valuation of £100 million. If we assume that stock markets are efficient, this means that investors have accurately valued the future cash flows that could be generated by the company under its present management as being worth £100 million. If the company is subsequently acquired at a 35 per cent bid premium for £135 million, it means that the acquirer must raise the future cash flows by £35 million just to recover the bid premium that it has already paid to the previous owners. In effect, the bid premium is a portion of future value that is paid in advance to the previous owners. The acquisition will only generate value for the acquirer if future cash flows are raised by *more* than £35 million. Many acquisitions fail simply because insufficient value is created to recoup the bid premium. This has led to considerable research efforts to understand the antecedents of value creation within acquisitions.

20.5.1 Strategic Fit and Value Creation

Early studies into value creation focused on the link between financial performance and the strategic attributes of the combining firms, in particular the extent to which a target company's business should be related to that of the acquirer. The foundation of these studies lay in the argument that the more closely related two merging businesses are in terms of their products, markets, and technologies, the greater the potential to create value by exploiting synergies based on economies of scale and scope and increased market power. However, the results of these studies were less than conclusive. While some researchers confirmed that related acquisitions were associated with greater total wealth creation, others reported higher returns in unrelated acquisitions, and others still concluded that there were no significant differences in the performance of the two types. This lack of consensus has been attributed in part to methodological difficulties in the measurement of 'relatedness'. An external assessment of the overlap in product markets and technologies at best can provide only a crude measure of the ability to actually transfer value-creating capabilities between the companies post-acquisition. (For reviews of the relatedness studies, see Seth 1990; Flanagan 1996.)

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These 'strategic fit' studies also investigated the influence of a number of other strategic factors, including the relative size of the acquisition and the target company's previous performance. The findings highlight that the acquisition of a company that is either very small or very large in relation to the size of the purchaser is associated with inferior financial performance. Small acquisitions can absorb as much management time as larger ones but for a much smaller incremental impact on the acquirer's overall performance, while a very large acquisition runs the risk of overstressing the purchaser both managerially and financially. In terms of the prior performance of the target company, higher returns are generally derived from the purchase of strongly performing businesses. This applies especially to cross-border acquisitions where any attempt to turn around a weak business can be hindered by unfamiliar cultural and legal contexts (Bleeke and Ernst (1993)).

20.5.2 Generic Value Creation Mechanisms

One criticism that is sometimes levelled at the 'strategic fit' studies is that they tend to assume that *similarities* between the acquiring and acquired firms are the primary driver of potential value creation. Of course, *differences* between the two companies may also be a sound basis for value creation as the strengths of one company complement a different set of strengths in the other. The ultimate driver of value creation within acquisitions is the ability to leverage the individual resources and capabilities of the combining companies, whether this be based on organizational similarities or differences.

These arguments have led to a more generalized model of acquisition value creation (Haspeslagh and Jemison 1991; Porter 1987). This states that there are four generic mechanisms through which value can be created from an acquisition, as outlined below. There is an obvious overlap between these mechanisms and the strategic and financial motives for acquisition outlined in Sections 20.3.1 and 20.3.2 above. Where an acquisition is undertaken for true economic reasons, then one or more of the mechanisms discussed below must be present to a degree that allows the acquirer to more than recoup any bid premium paid. The four mechanisms are:

1. *Resource Sharing*, in which certain operating assets of the two companies are combined and rationalized, leading to cost reductions through economies of scale or scope. Resource sharing is generally based on the existence of similarities between the two organizations and is frequently employed within intra-industry acquisitions. For example, the merger of the pharmaceutical companies Glaxo Wellcome and SmithKline Beecham sought to achieve annual cost-savings of £1 billion through the combination of the two R&D organizations and from reducing the overlap in administration, selling, marketing, and manufacturing facilities.

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2. *Knowledge (or skills) Transfer*, where value-adding knowledge such as production technology, marketing know-how, or financial control

skills is transferred from the acquiring firm to the acquired, or vice versa. Additional value is created through the resulting reduction in costs or improvement in market position leading to enhanced revenues and/or margins. The effective transfer of functional knowledge involves both a process of teaching and learning across the two organizations, and therefore tends to be a longer term process than resource sharing. Nevertheless knowledge transfer is often a key source of value creation within cross-border acquisitions, in which the opportunities to share operational resources may be limited by geographic distance.

3. *Combination Benefits*, where an increase in market power or a reduction in competitive intensity is achieved, or where financial resources are beneficially combined. A company making a large acquisition within its existing industry, or a series of smaller ones, may succeed in raising profit margins by effecting a transformation of the industry structure. The emergence of a dominant player within the industry should reduce the extent of competitive rivalry, as well as provide increased bargaining power over both suppliers and customers for the acquiring company. For example, a further stated benefit of the GlaxoSmithKline merger was that the combined company would gain global leadership of the pharmaceutical industry and through its greater marketing and sales resources it would achieve an increased share of voice with healthcare professionals and so maximize its market opportunities. In other instances financially based combination benefits may be available. As has been discussed above in Section 20.3.2, these may include the use of an acquirer's superior credit rating to reduce the interest charge of an indebted target, the consolidation of a target's losses to reduce tax liability, or the exploitation of various balance sheet positions.
4. *Restructuring* is applicable when the acquired company contains undervalued or underutilized assets. Here acquirers seek to exceed their acquisition costs by divesting certain assets at their true market value and by raising the productivity of the remaining assets. The latter may be accompanied by closing down surplus capacity, reducing head office staff, or rationalizing unprofitable product lines. Very often the two elements are combined; for example, the closure of surplus capacity may lead to a vacant factory site which can be sold off at a premium for redevelopment. A further form of restructuring is the concept of 'unbundling' as described in Section 20.3.2. Restructuring is essentially financially based, in that it requires little strategic capability transfer between the two firms. Rather, the skill of the acquirer is in recognizing and being able to realize the true value of the target's assets.

Research is continuing into the efficacy of these value creation mechanisms, especially the frequency and impact of resource sharing and knowledge transfer,

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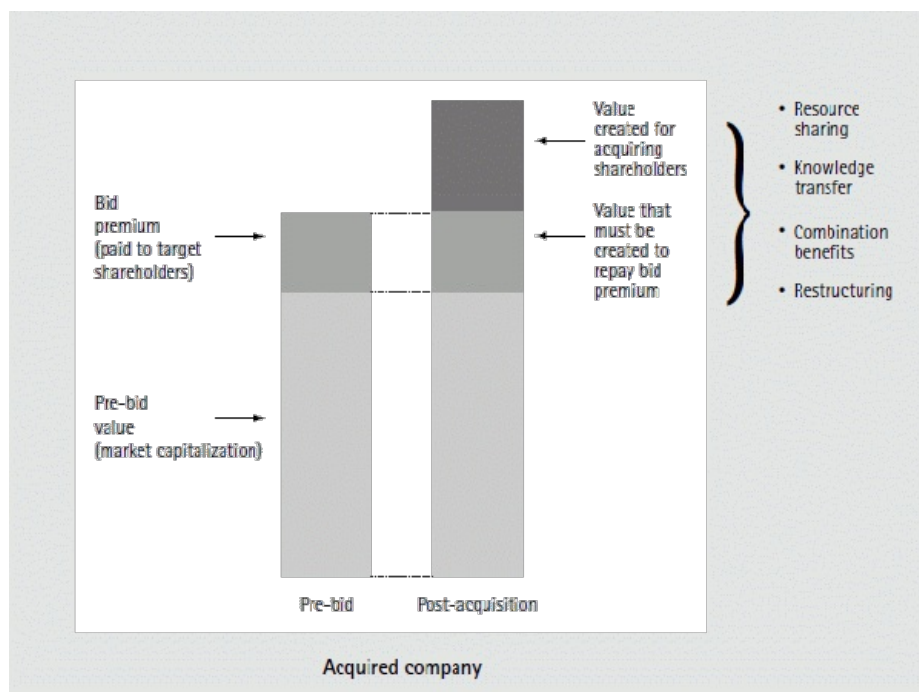


Fig. 20.4 Value creation within acquisitions

the two primary sources of operational synergy. Emerging results suggest that acquirers generally find it more beneficial in terms of value creation to rationalize their own assets upon combination rather than those of the target, and to transfer elements of their own knowledge base to the target company rather than vice versa. This is perhaps not surprising as an acquirer will almost always have a more in-depth understanding of their own assets and knowledge base than the target company's, and therefore can identify more accurately where cost-

savings and knowledge transfers can most readily be implemented. However, the data reveal that in practice assets of the target company are three to five times more likely to be divested than those of the acquirer (Capron 1999).

Other research suggests that acquirers also consistently overestimate their ability to transfer knowledge. A survey of British cross-border acquisitions showed that while almost 80 per cent of acquirers actively sought 'some or more' knowledge transfer within the marketing function, only 60 per cent had attained this level three to five years later. Similar shortfalls were evident across the other main functional areas. A large body of literature is available separately on the subject of knowledge management, but two explanations to account for these difficulties in knowledge

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transfer can be summarized as follows. First, there may be circumstances in which acquirers find it difficult to accurately identify the exact knowledge elements that must be transferred in order to replicate a particular capability. This can be especially true in cross-border acquisitions where differences in cultural and market contexts may make it difficult to understand the knowledge elements that lie behind a particular functional capability in an unfamiliar geographic market; what works in one nation may not be readily translated by those from others. Second, knowledge, particularly tacit knowledge, is frequently embedded in specific key individuals within an organization and its transfer between bidder and target or vice versa may require a personal exchange between the current knowledge holder and the desired recipient. These personal exchanges may be hampered if there are negative feelings towards the acquisition on the part of the individuals concerned (see Section 20.7 on employee resistance below). The implication is that acquirers who wish to create value through knowledge transfer must ensure at the outset that the appropriate knowledge can be accurately identified and captured and that a positive atmosphere conducive to its successful transfer can be generated post-acquisition (Schoenberg 2001).

20.5.3 Value Creation and Managerial Hubris

A further explanation as to why almost 50 per cent of acquisitions fail to create value is that managers may suffer from 'hubris' when estimating their ability to exploit value creation opportunities. It has been argued that when highly confident managers evaluate an acquisition opportunity an exaggerated self-belief in their own management ability causes them to overestimate the value-creating benefits that will flow from the transaction and so pay an excessive bid premium. Research evidence from 100 large US acquisitions supports the occurrence of managerial hubris. It was found that the size of bid premium was positively related to the recent performance of the acquiring firm, recent media praise for the CEO, and the CEO's self-importance as reflected in their pay level compared to other board members. Collectively, the greater these three measures of hubris, the higher the bid premium that was paid for any acquisition, but the lower the subsequent returns that accrued to acquiring firm shareholders (Hayward and Hambrick 1997).

In a similar vein, others have suggested that external advisers, particularly investment banks, can produce considerable external pressure for the acquirer to complete their acquisition evaluation prematurely so that the transaction can be finalized as soon as possible. Investment banks often receive the same fee for their M&A advice regardless of the time it takes to finalize the deal, or in many cases they may be on a success-based fee. External advisers, perhaps acting unconsciously in their own self-interest, can therefore become a driving force for a successful completion. This may be

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compounded if the acquisition is in the public eye and is attracting wide press coverage. Interestingly, corporate clients of the same investment bank have been shown to pay similar bid premiums for their acquisitions (Haunschild 1994; Haspeslagh and Jemison 1991).

20.6 Post-Acquisition Integration

The process adopted towards post-acquisition integration of the newly acquired firm is the second major determinant of acquisition performance. The presence of value creation opportunities does not in itself guarantee acquisition success. Plans have to be effectively implemented before the benefits can be realized in practice. The discussion in Section 20.5.2 above highlighted how the realization of operational synergy frequently involves substantial organization change. Manufacturing or service facilities may have to be rationalized, and redundancies made, without reducing the motivation of retained employees. Financial reporting and control systems may need to be integrated without imposing inappropriate information demands on the newly acquired firm. Technical experts may have to be relocated to facilitate knowledge transfer, yet must remain willing to share their expertise with those who were previously perhaps intellectual as well as commercial rivals. Such changes need to be implemented in a manner which creates additional value but without a level of organizational disruption that threatens to destroy the inherent value within the individual businesses.

Clearly, acquirers face a difficult challenge in deciding the degree to which the two organizations should be integrated following an acquisition. Under-integration may hinder the transfer of strategic capabilities necessary for value creation, while over-integration may

cause unnecessary organizational conflict so adding to implementation costs. Contingency frameworks have been developed to help acquirers assess the most appropriate form of integration for a given acquisition. The underlying assumption of these frameworks is that generic forms of integration can be identified, and that the optimum form and degree of integration must be chosen to maximize acquisition performance.

The popular framework derived by Haspeslagh and Jemison (1991) from extensive case-study research argues that the appropriate form of integration will depend on the balance and trade-off between two key requirements. First, the value creation mechanism driving the acquisition will determine the degree of *strategic interdependence* that needs to be established between the two companies. In general, resource sharing and knowledge transfer imply high to moderate strategic inter-dependence is required, while the less operational forms of value creation,

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combination benefits and restructuring, imply a lower requirement for interdependence. Second, the extent to which it is necessary to maintain the autonomy of the acquired firm in order to preserve its distinctive capabilities will determine the need for *organizational autonomy*. For example, where the innovative capability of a high technology business is embedded in a free-thinking and team orientated culture it may be important to preserve that culture if the rate of innovation is to continue post-acquisition. Consideration of these two requirements can guide the choice of the most appropriate form of integration from four basic approaches.

Absorption integration, where the aim is to achieve full consolidation of the operations, structure, and culture of both organizations, ultimately dissolving all boundaries between the two firms. Absorption integration is indicated where the value creation task requires high strategic interdependence, but there is a low requirement for the organizational autonomy of the acquired firm to be preserved. In absorption integration the intent is to closely integrate every aspect of the acquired business into the parent organization, so the managerial decisions are more to do with timing and communication than with which aspects of the business to integrate. An analysis of UK acquisitions completed in the first half of the 1990s found that 15 per cent had been subject to absorption integration. These acquisitions saw widespread changes, including substantial executive departure, with an emphasis on cost reduction through resource sharing (Angwin 2000).

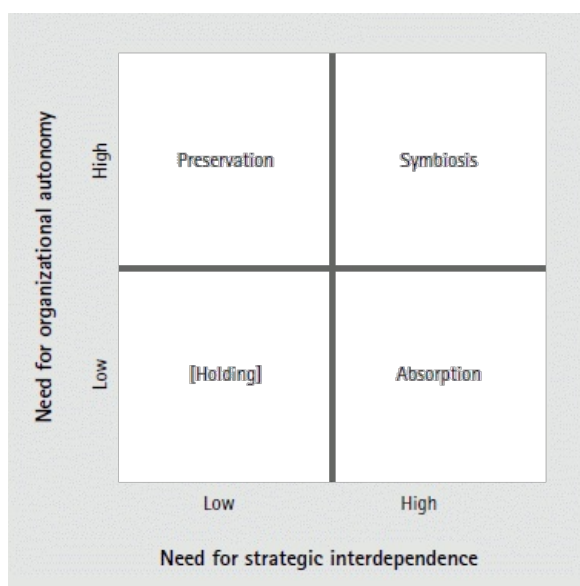


Fig. 20.5 Types of acquisition integration approaches

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Preservation integration, where the acquired organization is granted a high degree of autonomy and there is a low need for strategic interdependence between the combining businesses. This form of integration typically involves positioning the newly acquired firm as a stand-alone subsidiary with care taken to maintain the organizational environment within which the acquired firm's capabilities are embedded. The managerial challenge is to ensure that a sufficient level of value creation takes place whilst resisting any unnecessary interference in the new subsidiary. Preservation integration performs best where both firms have a capacity for organizational learning and valuable knowledge transfer can take place even at low levels of operational interaction. Alternatively, this form of integration may be appropriate where financially based combination benefits are an important source of value creation. Preservation is the most common form

of integration in the United Kingdom, adopted for 49 per cent of all acquisitions.

Symbiosis integration is where the acquiring firm attempts to achieve a balance between preserving the organizational autonomy of the acquired firm while transferring strategic capabilities between the two businesses. Symbiotic integration is called for when the value creation mechanism dictates a high degree of strategic interdependence between the two businesses, but the acquired firm also needs to retain its autonomy because its existing capabilities are embedded in an organizational environment that is different from that of the acquiring firm. These conflicting needs make symbiotic integration a complex management task. Often such acquisitions will initially be managed in a manner similar to preservation integration and over time a mutual interdependence will gradually be built up. The skill of the acquiring management is to judge where and when the planned operational synergies can be implemented without jeopardizing or threatening the core cultural and organizational values of the acquired firm. Symbiosis integration was found to be used in only 9 per cent of UK acquisitions, perhaps reflecting the inherent management difficulties. It is notable that the chief executive of the acquired firm tends to be retained in preservation and symbiotic acquisitions as they are often the most appropriate gatekeepers to protect the original organizational environment and capabilities of the acquired firm.

Holding integration, where low levels of strategic interdependence are required but simultaneously the acquired firm is granted low levels of autonomy. Surprisingly, data show that holding integration is adopted in 27 per cent of UK acquisitions, although this form of integration is probably best utilized where the acquired firm needs to undergo a business turnaround and the dominant value creation mechanism is restructuring. In such cases there is often little need for strategic interdependence beyond general management knowledge transfer and the implementation of tight financial control. Further, the underperformance of the acquired company means there is little requirement to preserve the existing organizational environment; rather, a wholesale culture change may be required to effect the turnaround (Angwin 2000).

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The originators of the above integration typology point out that the four forms of integration should be seen as broad 'metaphors' that can help to guide the post-acquisition strategy. Large or complex acquisitions may contain business units or sets of capabilities that vary in the trade-offs required between strategic interdependence and organizational autonomy and therefore will benefit from the use of more than one integration approach. Similarly, the most appropriate form of integration may change over the course of an acquisition and a progression from preservation to symbiotic integration is frequently observed in practice.

While the trade-off between strategic and organizational needs will be the key determinant of the form of integration, other factors may also exert an influence on the chosen balance. For example, acquirers of different nationalities have been shown to favour particular value creation strategies and integration approaches. Anglo-Saxon acquirers tend to derive performance improvements in their acquisitions through the introduction of differentiated products, a stronger marketing image, and a relatively high level of operational autonomy. In contrast, Japanese acquirers appear to favour the implementation of price-based competitive strategies coupled with low levels of operational and strategic autonomy, with changes of this type associated with performance improvement in the acquired firm. French acquirers, meanwhile, have a tendency to successfully introduce tighter cost control and an open and autonomous environment (Child, Pitkethly, and Faulkner 1999).

20.7 Employee Resistance to Acquisition

Employee resistance is the third major determinant of acquisition performance. In many instances employee resistance hinders the ability of the acquirer to create the planned value and achieve the necessary degree of post-acquisition integration. Employees frequently feel high levels of anxiety and uncertainty when a merger or acquisition is announced as concerns are voiced over issues ranging from changes in management style to possible redundancies. These concerns are often compounded once the acquisition is completed and new reporting hierarchies, management structures, and control systems are actually introduced. Staff and managers within the acquired firm can feel alienated and marginalized by the changes themselves and also by the implications for planned career paths and previously familiar and comfortable working patterns. These negative feelings can manifest themselves as increased employee stress, reduced work performance and commitment, acts of non-compliance, and in some cases even deliberately disruptive behaviours.

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The impact of employee resistance is confirmed by research conducted within newly acquired US firms. Human resource problems, including absenteeism, staff turnover, conflict levels, and reduced work quality, rose in line with the degree of change that followed an acquisition. The occurrence of these human resource problems, in turn, had a clear negative impact on the subsequent performance of the affected acquisitions (Shanley 1994).

One obvious sign of employee resistance is a high rate of staff turnover within the acquired firm. Indeed, the turnover of managers within

newly acquired companies has been found to be over twelve times higher than in non-acquired companies during the first year, with, on average, 25 per cent of the previous top management team departing post-acquisition. Of course, not all of these departures will have been voluntary. The acquirer may have weeded out underperforming managers or imposed its own management team as part of the acquisition integration process. This is particularly true where the acquired firm has been performing poorly prior to the acquisition and where absorption or holding integration are adopted. Overall, however, high rates of management turnover are associated with inferior acquisition performance. The loss of substantive experience from the acquired firm is not easily recovered (Cannella and Hambrick 1993).

Culture clashes can be a major cause of employee resistance. M&A involve the coming together of two separate organizational cultures which had previously defined the rituals and routines of working life within their respective companies. The marriage of different and incompatible cultures can foster feelings of uncertainty and insecurity amongst employees as differences in the philosophies, values, and practices of the two companies become exposed in the post-acquisition period. Large sample research studies show that, after controlling for other factors, the greater the difference in organizational cultures between the two combining companies the worse the subsequent performance of an acquisition.

Issues of culture clashes can be especially complex within cross-border acquisitions. Not only do these acquisitions bring together two separate organizational cultures, they also bring together the two national cultures of the firms concerned. The importance of this issue is illustrated by practitioner surveys which report that up to 90 per cent of unsuccessful cross-border acquisitions experience major unforeseen difficulties due to cultural differences. National culture exerts an influence on many aspects of a firm's organization and behaviour, for example its openness to strategic change, its decision-making style, and even its choice of acquisition integration strategy as we have seen above. Several empirical studies have found that differences in the national cultures of the bidder and target are associated with inferior acquisition outcome, although the separation of the influences of organizational and national culture is a methodological difficulty faced by such studies (Schoenberg 2000).

Emerging research suggests that out of this range of possible cultural differences, the two companies' attitudes towards risk may exert a particularly key influence in

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terms of cultural compatibility and the ultimate performance of an acquisition. Interestingly, where cultural differences are present it has been found that isolating the acquired company is not a viable strategy for avoiding the negative consequences of those differences. Data reveal that cultural differences can reduce acquisition performance even where preservation integration is adopted and the acquired firm is managed as a stand-alone subsidiary (Schoenberg 2000).

However, differences in culture should not automatically be associated with negative consequences. Other recent research indicates that where the bidder's culture is perceived to exhibit relative attractiveness to target company employees, the combination of dissimilar cultures can in fact provide a positive influence on performance. There is also some evidence that the level of delegated autonomy and participation endorsed by the acquirer's culture may be an important determinant of its perceived attractiveness. Acquired firm employees have been shown to display greater commitment to achieving successful post-acquisition integration where they believe that the acquisition will increase their level of participation and autonomy (Very, Lubatkin, Calori, and Veiga 1997; Cartwright and Cooper 1996).

In addition to an evaluation of cultural compatibility, research from the human resource field suggests a number of other approaches that can be adopted to reduce employee resistance. Where redundancies are to occur as a result of the acquisition, careful communication of how the terminated employees were selected and treated is crucial. The perception of retained employees as to how well terminated colleagues have been treated has been shown to be a key factor in determining their attitudes towards changes in their own work situation. Similarly, systematic communication of the positive future of the combined company and the associated career opportunities can be helpful. Frequently, a major source of resistance amongst managerial and professional staff is a perception that their career may be thwarted as a result of acquisition, either because of rationalization or because their skills will be less valued henceforth. As well as deliberate communication efforts, the promotion of at least one acquired firm executive to a top management position in the post-acquisition firm has been found to exert a beneficial effect. The symbolic importance that is attached to personnel moves should not be underestimated (Fried et al. 1996; Cannella and Hambrick 1993).

Finally, the climate created during the negotiation stage of an acquisition can have a notable influence on the subsequent level of employee resistance. Ambiguity is often present during the purchase negotiations between the bidder and target on matters such as performance expectations, plant and staff rationalization, and future reporting relationships. This ambiguity may ease the negotiation process and precipitate early agreement, but it can lead to conflict and resentment when expectations and assumptions about the other side fail to be upheld post-acquisition. The resulting lack of trust and heightened organizational concern can fuel employee resistance and may seriously slow down the implementation of the acquisition. More positively, a higher incidence of acquisition success has been found to occur in

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situations where bidders communicate a clear vision of the future, especially regarding the interfaces between the parent and new subsidiary, and rigidly adhere to assurances given during negotiation. This is supported by the finding that friendly acquisitions generally outperform hostile acquisitions where by definition the negotiation process has been fraught and highly charged (Haspeslagh and Jemison 1991).

20.8 Conclusion

This chapter has examined the subject of mergers and acquisitions from a strategic management perspective. We have seen that M&A are an increasingly popular means of corporate expansion, motivated by a variety of strategic, financial, and managerial objectives. Yet despite their popularity, M&A have a mixed performance record and a range of methodologies has confirmed that approximately one in two are classified as failures for the acquiring firm. An integration of the research highlights three major determinants of M&A performance. First, sufficient additional value must be created within the combined entity to more than offset any bid premium paid and the associated costs of combination. Second, an appropriate degree of integration must be achieved between the two businesses following the merger. The challenge here is to implement the changes necessary for value creation but without causing a level of organizational disruption that could damage the inherent capabilities of the two individual businesses. Finally, employee resistance to the combination must be minimized in order to avoid long-term human resource problems and the loss of key personnel.

It is noteworthy that the average failure rate of acquisitions has stood constant at around 50 per cent for the past twenty-five years. One implication that follows from this static failure rate is that either the research evidence and associated prescriptions are not reaching corporate executives, or that widespread managerial hubris is causing many executives to mistakenly believe that their acquisition will be one of the 50 per cent that succeeds. Certainly, the current high activity levels will act as a catalyst for further research on the topic. There is significant ongoing effort to increase our understanding of resource sharing and knowledge transfer as value creation mechanisms and the best practice in their implementation. A further promising research direction concerns the area of employee resistance and the exact role and processes by which cultural differences impact acquisition performance.

Although it is probable that activity levels will decline somewhat over the coming years as we pass the peak of the economic cycle, the flow of M&A transactions is

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nevertheless set to remain reasonably buoyant. The deals of today that ultimately fail to deliver their promise will become the divestments and acquisitions of tomorrow. Similarly, the advancing globalization in many industries will see M&A continue as competitors are forced to consolidate. This may be a particularly significant driving force within continental Europe where many industries are currently notably more fragmented than in the United States or United Kingdom. Finally, the high rate of entrepreneurial start-ups seen in recent years can be expected to lead to a steady flow of available M&A targets as the entrepreneurs or their successors seek an exit route. M&A appear set to remain a central component of the corporate strategy agenda.

References

- Angwin, D. (2000). *Implementing Successful Post-Acquisition Management*. London: Financial Times–Prentice-Hall.
- Berkovitch, E., and Narayanan, M. (1993). 'Motives for Takeovers: An Empirical Investigation'. *Journal of Financial and Quantitative Analysis*, 28/3: 347–61. [Link](#)
- Bleeke, J., and Ernst, D. (1993). *Collaborating to Compete: Using Strategic Alliances and Acquisitions in the Global Marketplace*. New York: J. Wiley & Sons.
- Cannella, A., and Hambrick, D. (1993). 'Effects of Executive Departures on the Performance of Acquired Firms'. *Strategic Management Journal*, 14: 137–52. [Link](#)
- Capron, L. (1999). 'The Long Term Performance of Horizontal Acquisitions'. *Strategic Management Journal*, 20/11: 987–1018. [Link](#)
- Cartwright, S., and Cooper, C. (1996). *Managing Mergers, Acquisitions and Strategic Alliances: Integrating People and Cultures*. Oxford: Butterworth-Heinemann.
- Child, J., Pitkethly, R., and Faulkner, D. (1999). 'Changes in Management Practice and the Post-Acquisition Performance Achieved by Direct Investors in the UK'. *British Journal of Management*, 10/3: 185–98. [Link](#)

Flanagan, D. (1996). 'Announcements of Purely Related and Purely Unrelated Mergers and Shareholder Returns: Reconciling the Relatedness Paradox'. *Journal of Management* , 22: 823–35. [Link](#)

Fried, Y., Tiegls, R., Naughton, T., and Ashforth, B. (1996). 'Managers' Reactions to a Corporate Acquisition: A Test of an Integrative Model'. *Journal of Organisational Behaviour* , 17: 401–27. [Link](#)

Golbe, D., and White, L. (1993). 'Catch a Wave: The Time Series Behaviour of Mergers'. *Review of Economics and Statistics* , 75: 493–9. [Link](#)

Haspeslagh, P., and Jemison, D. (1991). *Managing Acquisitions: Creating Value through Corporate Renewal* . New York: Free Press.

Haunschild, P. (1994). 'How Much is that Company Worth? Inter-organizational Relationships, Uncertainty, and Acquisition Premiums'. *Administrative Science Quarterly* , 39: 391–411. [Link](#)

Hayward, M., and Hambrick, D. (1997). 'Explaining the Premiums Paid for Large Acquisitions: Evidence of CEO Hubris'. *Administrative Science Quarterly* , 42: 103–27. [Link](#)

end p.608

Healy, P., Palepu, K., and Ruback, R. (1997). 'Which Takeovers Are Profitable? Strategic or Financial?'. *Sloan Management Review* , 38/4: 45–57.

Kaplan, S., and Weisbach, M. (1992). 'The Success of Acquisitions: Evidence from Divestitures'. *Journal of Finance* , 57/1: 107–38. [Link](#)

Larsson, R., and Finkelstein, S. (1999). 'Integrating Strategic, Organisational, and Human Resource Perspectives on Mergers and Acquisitions: A Case Survey of Synergy Realization'. *Organization Science* , 10/1: 1–26. [Link](#)

Porter, M. (1987). 'From Competitive Advantage to Corporate Strategy'. *Harvard Business Review* , 65/3: 43–59.

Schoenberg, R. (2000). 'The Influence of Cultural Compatibility within Cross-Border Acquisitions: A Review'. *Advances in Mergers and Acquisitions* , 1: 43–59. [Link](#)

— (2001). 'Knowledge Transfer and Resource Sharing as Value Creation Mechanisms in Inbound Continental European Acquisitions'. *Journal of Euromarketing* , 10/1: 99–114. [Link](#)

— and Reeves, R. (1999). 'What Determines Acquisition Activity within an Industry?'. *European Management Journal* , 17/1: 93–8. [Link](#)

Seth, A. (1990). 'Value Creation in Acquisitions: A Re-examination of Performance Issues'. *Strategic Management Journal* , 11/2: 99–116. [Link](#)

Shanley, M. (1994). 'Determinants and Consequences of Post-Acquisition Change', in G. von Krogh, A. Sinatra, and H. Singh (eds.), *The Management of Corporate Acquisitions*. London: Macmillan, 391–413.

Sudarsanam, S., Holl, P., and Salami, A. (1996). 'Shareholder Wealth Gains in Mergers: Effect of Synergy and Ownership Structure'. *Journal of Business Finance and Accounting* , 23: 673–98. [Link](#)

Very, P., Lubatkin, M., Calori, R., and Veiga, J. (1997). 'Relative Standing and the Performance of Recently Acquired European Firms'. *Strategic Management Journal* , 18: 593–614. [Link](#)

Yagil, J., (1996). 'Mergers and Macro-Economic Factors'. *Review of Financial Economics* , 5/2: 181–90. [Link](#)

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24 Globalization and the Multinational Enterprise

Peter Buckley

24.1 The Meaning of Globalization

GLOBALIZATION has both affected, and been caused by, the strategies of multinational enterprises (MNEs).¹

¹ We can simply define a multinational enterprise as a firm which owns and controls assets in more than one country (see Buckley and Casson 1985).

The concept of globalization has become devalued by the ascendancy of use over meaning. Perhaps we should return to markets to give meaning. Broadly, if we envisage three types of markets—financial markets, markets in goods and services, and labour markets—we can envisage each of these moving at a differential speed towards global integration.

Financial markets are already very closely integrated internationally, so much so that no individual 'national market' can have independent existence. Goods and services markets are integrated at the regional level and this coordination is largely policy-driven through institutions such as the European Union, NAFTA, ASEAN, etc. Labour markets however are functionally separate at the national level and here integration is largely resisted by national governments (the UK's opt out of the EU Social Chapter to 1997, examples from NAFTA).

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Figure 24.1 shows a highly simplified picture of the world economy. It attempts to show different degrees of integration across various types of market. The suggestion is that financial markets are substantially integrated so that the world financial market can, for many purposes, be regarded as a single market. The market for goods and services is differentiated on a regional basis with 'single markets' either existing or emerging (European Union (EU), North American Free Trade Area (NAFTA), and so on). Such markets are increasingly uniform in regulation, standards, codes of practice (for example, anti-trust), and business behaviour and so they offer the possibility of economies of scale across the market, but are substantially differentiated by these factors (and possibly by a common external tariff) from other regional markets. Labour markets, however, remain primarily national. Governments wish to regulate their own labour market and to differentiate it (protect it) from neighbouring labour markets. Many of the current difficulties in governmental regulatory policy arise from the difficulty of attempting to pursue independent labour market policies in the presence of regional goods and services markets and an international market for capital.

In contrast, multinational enterprises are perfectly placed to exploit the differences in international integration of markets. The presence of an international capital market enables capital costs to be driven to a minimum. The existence of regional goods and services markets enables firms to exploit economies of scale across several economies. Differential labour markets enable costs to be reduced by

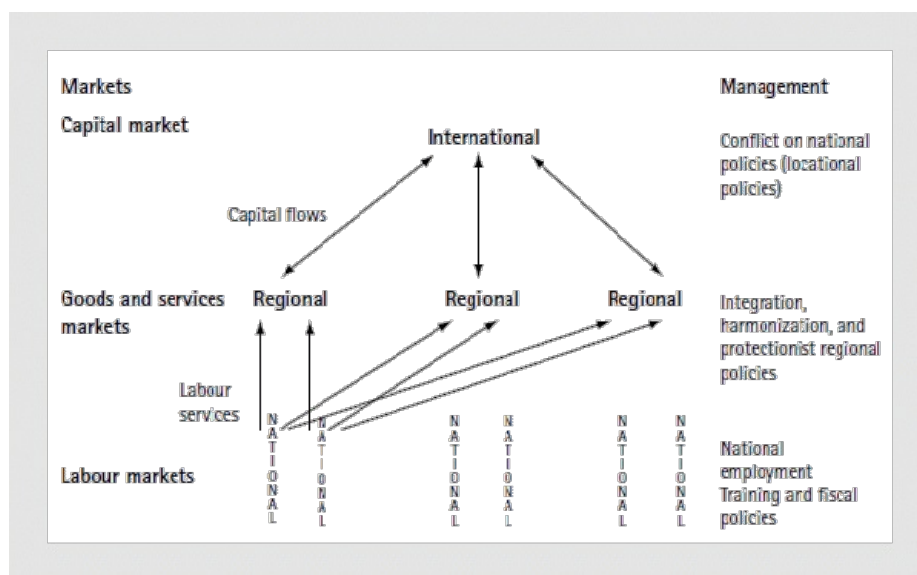


Fig. 24.1 Internationalization of firms: conflict of markets

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locating the labour-intensive stages of production in cheap labour economies. Horizontal integration is served by regional goods and services markets, vertical integration by differentiated labour markets and the spatial distribution of supplies of key raw materials. Strategic trade and foreign direct investment can be seen to take place within this overall framework.

The beneficiaries of this differential speed of integration are multinational firms. They can raise capital at the lowest possible cost, reap economies of scale in regional goods and services markets, and segment labour markets by choosing least cost inputs for different spatially separate activities.

National borders do still matter however. A recent study (Rangan and Lawrence 1999) concluded that national borders continue to engender and to coincide with important discontinuities stemming from government policies, geography, and societal differences. Information discontinuities coincide with national boundaries and so create search and deliberation problems for trading and manufacturing firms. These uses also account for the alleged 'home bias' of multinational firms. Foreign direct investment and its variants are the tool by which multinationals bridge cross-border discontinuities. National locations remain distinctive. Policy barriers at the borders, differences in local cultures in the widest sense, and nature and geography contribute to distinctiveness. This, together with the ability of incumbents to keep outsiders at a disadvantage and the first entrant benefits of local firms, reinforce the differentiation of national economies. International competition in product and services markets remains imperfect and international price differences persist because arbitrage is costly. Largely, domestic market conditions determine prices and wages. Multinational firm affiliates remain firmly embedded in their local economy and such local firms identify closely with the national government.

Thus, the two contrasting paradigms of a world of separate national states and a borderless world are incomplete and capture only part of a complex, subtle, and dynamic story. This is the background to the study of the strategy of multinational enterprises.

24.2 The Definition of a Multinational Enterprise

Whole papers have been devoted to the question of defining the multinational enterprise (Aharoni 1966). Four alternative types of definition would seem to be:

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- (1) an operating definition, one form of which is the ownership-threshold definition—a firm that owns or controls income-generating assets in more than one country;
- (2) a structural definition where multinationality is judged according to the organization of the company;
- (3) a performance criterion incorporating some relative or absolute measure of international spread, such as number of foreign subsidiaries or percentage of sales accounted for by foreign sales; and
- (4) a behavioural criterion based on the corporation's degree of geocentricity.

Definitions are not right or wrong, just more or less useful. Our definition is the simplest form of a threshold definition—a firm that owns outputs of goods or services originating in more than one country (Buckley and Casson 1985). Consequently, we avoid the issue of defining control and do not necessarily imply that the firm is a foreign direct investor. Thus, we bring new forms of international involvement within the ambit of the theory (Buckley 1985b).

24.3 Conceptual Approaches to the MNE

24.3.1 The Hymer-Kindleberger Tradition

The initial core of modern theory of the multinational enterprise was a deceptively simple proposition: that in order to compete with indigenous firms, which possess innate strengths such as knowledge of the local environment, market, and business conditions, foreign entrants must have some compensating advantage. This proposition took foreign direct investment away from the theory of capital movements into the theory of industrial organization. For, in a perfect market, foreign direct investment could not exist because local firms would always be able to out-compete foreign entrants.

The initial phase of the Hymer-Kindleberger approach was therefore the search for the compensating advantage that foreign investors possessed. Kindleberger's exposition (1969) examined four main areas of internationally transferable advantages. First, departures from perfect competition in goods markets, including product differentiation, marketing skills, and administered pricing; secondly, departures from perfect competition in factor markets, including access to patented or proprietary knowledge, discrimination in access to capital, and skill differences embodied in the firm (particularly its management); thirdly, internal and external

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economies of scale, including those arising from vertical integration; and finally, government intervention, particularly those forms restricting output or entry. Such advantages enable the foreign entrant to overcome its lack of knowledge of local conditions innate in the local firm, which the foreign firm can only acquire at a cost, also serve to compensate for the foreigner's cost of operating at a distance.

We must, however, turn to a second critical element in the Hymer-Kindleberger approach. Given the special advantages that enable the firm to invest abroad successfully (the necessary condition), it remains to be proved that the direct investment is the preferred means of exploiting the advantage (the sufficient condition). The basis for the decision, according to Hymer-Kindleberger, is profitability. In many cases, direct investment will be preferred to either exporting or licensing the advantage to a host-country firm. Exporting will in many cases be excluded by tariff and transport-cost barriers; also, a local producer may be better placed to adapt its product to local conditions and a local presence may have demand-stimulating effects.

The arguments that firms will often prefer foreign direct investment to licensing are more subtle. Hymer (1976) argued that the advantage-possessor cannot appropriate the full return (or rent) from its utilization because of imperfections in the market for knowledge. Such imperfections arise from buyer uncertainty when the buyer is unable to assess the worth of the knowledge until he is in possession of it, lack of an institutionalized market for the knowledge and the dependence of the value of the knowledge on its secrecy. The seller thus cannot induce competitive bids in order to appropriate the full returns. Further factors that favour foreign direct investment over licensing the advantage to host-country firms are the desire for control by the advantage-possessor and the danger that the advantage-seller will create a competitor if the buyer uses the advantage in ways that have not been paid for. Licensing may incur heavy firm-to-firm transfer costs, including costs of policing the transferred property rights (Buckley and Davies 1981)—costs that do not arise in the case of parent-to-subsidiary transfers.

In summary, therefore, this approach suggests that a multinational entrant must possess an internally transferable advantage, the possession of which gives it a quasi-monopolistic opportunity to enter host-country markets. Barriers to trade and barriers that prevent host-country firms from duplicating this advantage mean that foreign direct investment is frequently the preferred form of exploiting the advantage in foreign markets.

It is arguable, however, that the fundamental proposition of the Hymer-Kindleberger approach is not as easily applicable to established multinational firms as opposed to firms becoming multinational. How far do the barriers to entry to foreign market decline as the international spread of the firm widens? Established multinational firms have gained worldwide dominance and developed techniques to learn in advance of local conditions; products, processes, management style, and marketing techniques are continually adapted to local markets. The ability of a

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multinational to forecast and adapt is one of the major competitive skills. It is now the only entry into unusually isolated markets (such as China) where the heavy costs of foreignness are still encountered. The advantages of locals in other instances can be discounted in advance by an experienced multinational firm.

The whole concept of firm-specific advantages must therefore be questioned (Buckley 1983a). The concept is artificially attenuated at the point where the firm first crosses national boundaries, or at least has the potential to do so. Firm-specific advantage is a reflection of this cut-off point as a snapshot in time of a dynamic process. The existence of firm-specific advantages depends on a set of assertions on (a) the diffusion of technical and marketing know-how, (b) the comparative advantage of firms in particular locations, and (c) the existence of particular types of economies of scale.

The first set of assertions rests on the size and extent of barriers to the scale of information on the market that are increasingly open to challenge, as are the assumptions on the relatively costless nature of internal information transfer (Teece 1983). The second set of assertions is under threat from the worldwide rise of multinational enterprises. Finally, empirical propositions on economies of scale in research and development, on which firm-specific advantages rest, remain to be proved empirically; there is no guarantee that those who undertake research and development are necessarily the optimum users of its output. Separation through the market of research and its implementation in production may be a better solution. Finally, multinational firms can become locked into outmoded technologies whose institutional rigidities may prevent the creation and absorption of new developments in established firms. This provides opportunities for new-generation products and processes outside existing multinationals that gives flexibility to growth paths and often leads to the emergence of new firms.

The notion of firm-specific advantage is thus short-run when endowments of proprietary knowledge are fixed. In the long run, investment policy is crucial and a dynamic reformulation of industry barriers to entry is necessary to bring about an approach integrating the life cycle of a firm to expansion paths over time (Buckley 1983a)

24.3.2 The Product-Cycle Model and 'The Transnational Corporation'

The product-cycle hypothesis chiefly associated with Raymond Vernon (1966, 1974, 1979) has yielded many insights into the development of the multinational enterprise. The models rest on four basic assumptions:

- (1) products undergo predictable changes in production and marketing;
- (2) restricted information is available on technology;

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- (3) production processes change over time and economies of scale are prevalent;
- (4) tastes differ according to income and thus products can be standardized at various income levels.

The original model (Vernon 1966) suggested that new products would appear first in the most advanced country (the United States of America) because demand arising from (a) discretionary spending on new products arising from high income and (b) substitution of new capital goods for expensive labour would be most easily transmitted to local entrepreneurs. Consequently, the new product stage, where an unstandardized product with a low-price elasticity of demand is produced on an experimental basis, occurs in the United States of America. The second stage is the maturing product. The product begins to be standardized and the need for flexibility on both supply and demand sides declines. The possibilities of economies of scale lead to expansion in production; this is matched by increasing demand as the product becomes cheaper. The market begins to appear in other advanced countries and is initially satisfied by exports from the United States of America. Eventually cost factors begin to dictate that these foreign markets should be serviced by local production and the emergence of indigenous producers adds a defensive motive to the advantages of investment by US producers. So other advanced countries are the first recipients of US direct investment. In the third stage, a standardized product emerges that sells entirely on the basis of price competitiveness. The imperative now is to produce the product at the lowest possible cost. Consequently, the labour-intensive stages of production are hived off and carried out, via foreign direct investment, in the less developed countries, where labour is cheapest.

Vernon's initial model has the virtues of simplicity and directness. It explains US investment in other advanced countries and the phenomenon of offshore production in cheap labour countries. Despite its advantages in integrating supply and-demand factors, it has been outdated by events. First, the United States is no longer totally dominant in foreign investment—European and Japanese multinational expansion also needs explanation. Secondly, multinational enterprises are now capable of developing, maturing, and standardizing products almost simultaneously, differentiating the product to suit a variety of needs without significant time-lags.

It was to counter the first objection that Vernon adapted his model to deal with non-US multinational enterprises after virtually admitting the redundancy of the 'simple' model. The modified product cycle (1979) brings the hypothesis much closer to the Hymer-Kindleberger model outlined above, resting as it does on oligopoly and market behaviour. The hypothesis is now concerned to emphasize the oligopolistic structure in which most multinational enterprises operate and their attempts to forestall entry into the industry by new firms. The names of the stages tell the story of the competitive devices used to construct and maintain oligopoly—innovation-based oligopoly, mature oligopoly (price competition and

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scale economies), and senescent oligopoly (cartels, product differentiation, and the essential breakdown of entry barriers).

The product-cycle model thus yields many interesting insights into the process of global competition. It has also led to several valuable empirical studies—notably Hufbauer (1966) and Hirsh (1967). However, its over-deterministic and programmatic nature are features that have to be modified in view of the increasing sophistication of global competition (Giddy 1978). In its analysis of the strategy of established multinational firms, the product-cycle approach splits three interdependent decisions: (1) investment in product-development; (2) the method of servicing a foreign market; and (3) the firm's competitive stance in relation to foreign firms. These elements need to be considered simultaneously by multinational enterprises. As the basis for a forward-planning model, the product-cycle hypothesis has been outdated by the existence of experienced firms facing world-wide competition. Modelling of the process by which a beginner becomes an established multinational firm represents a gap in the theoretical framework, despite several empirical studies. Whatever the defects of Vernon's models, their virtues serve to focus attention on a more truly dynamic version of the growth of (multinational) firms.

Vernon's ideas were a major factor in the development of Bartlett and Ghoshal's (1987, 1989) work on 'the transnational corporation'. The threefold imperative of the product cycle: (1) product innovation (product development, technology transfer skills, and competence transmission internationally), (2) closeness to the marketplace ('local' strategies, differentiation and adaptation of products, revenue generation) and (3) cost-based competition (global production, standardization, efficiency-seeking cost-reduction policies) become a key triad for international strategy. Bartlett and Ghoshal took Vernon's threefold strategy imperative, but removed their temporal sequencing. Thus innovation, sensitivity to the local conditions, and global efficiency must be sought simultaneously and continually in order to survive in global competition. The means towards these ends and the trade-off between them remain key issues in the international management literature.

24.3.3 Internalization and the Theory of the Multinational Enterprise

Attempts at integration of the various strands of the theory of the multinational firm have centred on the concept of internalization. The framework of analysis is derived from Coase (1937) It is pointed out in Casson (1985a) that two connotations of this concept exist. One aspect is the internalization of a market where an arm's length contractual relationship is replaced by unified ownership. The other

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concerns the internalization of an externality where a market is created where none existed before. Often, internalization of the second kind is a consequence of the first, but logically the two should be dissociated. The excessive generality ascribed to internalization has led to it being described as 'a concept in search of a theory' (Buckley 1983a: 42), but careful distinctions between types of internalization and the incidence of costs and benefits on a firm-by-firm basis lead to concrete propositions on the optimal scope of the firm (Casson 1981; Teece 1983).

The thrust of the concept of internalization is that the actions of firms can replace the market or alternatively augment it. The explanatory power of the concept rests on an analysis of the costs and benefits to the form of internalizing markets, particularly markets in intermediate goods. The predictive power of the concept for the growth and pattern of multinational enterprises is given by a statement of the likelihood of the internalization of the various markets a company faces. The advantages of internalization (and therefore of control by the firm versus the market solution) are given by:

- (1) the increased ability to control and plan production and in particular to coordinate flows of crucial inputs;
- (2) the exploitation of market power by discriminatory pricing;
- (3) the avoidance of bilateral market power;
- (4) the avoidance of uncertainties in the transfer of knowledge between parties that may exist in an alternative (market) solution;
- (5) the avoidance of potential government intervention by devices such as transfer prices.

Costs arise from communication, coordination, and control difficulties, and the costs of foreignness (Buckley and Casson 1976). Three cases of empirical importance are (a) the advantages of vertical integration; (b) the importance of situations where intermediate product flows in research-intensive industries; and (c) the internalization of human skills, particularly in areas with high returns to team cooperation such as marketing and financing.

Magee (1977) bases his explanation on the ease of appropriability of returns from the creation of information: that is, the ability of the private originators of ideas to obtain for themselves the pecuniary value of the ideas to society. This extension of Johnson's (1970) concept and Arrow's (1962) analysis of the public good nature of proprietary information is linked with an industry cycle to derive expectations on the nature of multinational enterprise development and its ability to transfer technology effectively, particularly to less developed countries (Magee 1977).

Underlying this internalization approach is the view that internal solutions will be sought where international market imperfections would impose costs on firms using those markets. Internalization of markets also imposes severe barriers on new entry. The multinational is thus seen as both responding to market imperfections and creating them. Clearly, strong links with the Hymer-Kindleberger approach

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and the product-cycle hypothesis are apparent. Attention to imperfections on intermediate markets should not obscure the role of imperfections in final goods markets, leading to competitive devices such as product differentiation and administered pricing. Multinationals are not passive reactors to imperfections, and internalization decisions interact. The critical role of information as an intermediate product is an important synthesizing element.

The role of multinationals in creating imperfections has not yet been fully incorporated into the theory because more attention has been paid to multinational enterprises' reactions to market imperfections. What is required is a thorough-going theory of barriers to entry for industries and markets. Further, the concept of internalization is a difficult one to measure empirically. The use of internal exports and flows relating to research and development (Buckley and Pearce 1979, 1981, 1984) do not always fully discriminate between this approach and others.

24.3.4 Multinational Enterprises and Location Theory

Any viable explanation of the growth, pattern, and operations (sourcing policies) of inputs and market-servicing policies must include elements of location theory. Under the general rubric above, the multinational enterprise can be seen simply as a major vehicle for the transfer of mobile resources (technology, capital, and management skills) to areas with immobile (or fixed) complementary inputs (markets, raw materials, and labour). Thus, Ricardian endowments enter the theory.

The location-specific endowments of particular importance to multinational enterprises are: (1) raw materials, leading to vertical foreign direct investment; (2) cheap labour, leading to offshore-production facilities; and (3) protected or fragmented markets leading to foreign direct investment as the preferred means of marketing servicing. Location factors therefore enter the theory not only in their own right, as an influence on the relative costs facing a multinational enterprise with a choice of locations, but may also provide the motives for international expansion.

The important connections between location factors and the (internal) organization of multinational enterprises should, however, be given due weight. First, the multinational enterprise will normally be a multistage, multifunction firm and the location of different stages and functions will be subject to different locational influences connected by (international) flows of intermediate products. Secondly, the internalization of markets will affect location in two important ways:

1. The multinational enterprises will have an incentive to minimize government intervention through transfer pricing, for instance, to reduce the overall tax liability by the input of high mark-ups in the lowest tax countries and possibly by altering its location strategy completely to take in a low-intervention tax haven. (For evidence

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on the nature and amount of intra-company trade and its determinants, see Buckley and Pearce 1979, 1981, 1984).

2. The increased communication flows in an internal market may bias high communication-cost activities towards the centre—usually towards the source country where critical activities are focused on head office. (A forceful extension of this argument is given by Hymer 1976.)

In his restatement of the product-cycle hypothesis, Vernon (1974) gives a great deal of weight to the interplay between the stage of the industry's development and the relevant locational influences upon it. The location of research activities (in the centre) and the changing locational influences on production provide the dynamic for the theory.

Standard location theory can be shown to be of direct relevance to the strategy of multinational enterprises as illustrated by Dunning's paper on the location of multinational enterprises in an enlarged European Community (1972) (see also Casson (1985b) and Horst's (1972) work on the servicing of the Canadian market by US multinational enterprises). The reduction, removal, or increase of tariffs between nations will alter multinational enterprise market-servicing decisions and cause a restructuring of the location of multinational enterprise activities. This area leads into an interesting discussion centred on the relative comparative advantages of firms and nations and thence to relative bargaining capabilities (Vaitsos 1974; Casson 1979).

24.3.5 Japanese Direct Investment: A Distinct Approach?

Some people believe that Japanese direct investment requires a special approach because of several alleged differences from Western European and US investment (Ozawa 1979a, 1979b) Among these differences are a later takeoff of Japanese investment; a clustering in Latin America and Asia of such investments; the supposed greater labour-intensity of Japanese investment; its openness to joint ventures; and the existence of group-controlled investment (Buckley 1983b, 1985a).

These characteristics have led Japanese analysts to propose alternative explanations specifically related to Japanese conditions. One of the most ingenious is the theoretical framework developed by Kiyoshi Kojima (1978, 1982), Kojima and Ozawa (1984). Kojima's approach has a model of trade-oriented (Japanese-type) foreign direct investment, to distinguish it from anti-trade-oriented (American-type) foreign direct investment. Kojima's aim is to integrate trade theory with direct investment theory and to contrast Japanese-type investment with American-type.

Kojima (1978) begins with the standard two-country, two-factor, two-product Heckscher-Ohlin model of trade. He then introduces Mundell's demonstration that under rigorous Heckscher-Ohlin assumptions, the substitution for commodity-of-factor

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movements will be complete. The process for achieving this is that capital—homogeneous (money) capital—flows from the capital-rich to the capital-poor country, perhaps as a response to the imposition of a prohibitive tariff on capital-intensive exportables. As a result, the recipient country becomes more capital-abundant and reallocates its resources so that production of capital-intensive goods expands, and that of labour-intensive goods declines, until equilibrium is reached at a point exactly corresponding to the post-trade situation in the absence of the capital movement. This pattern of output change—that the recipient country's comparatively disadvantaged industry expands and its comparatively advantaged (in terms of its original factor-endowment) industry contracts—is posited in the Rybczynski theorem. Kojima views American foreign direct investment in this light, arguing that the basis for trade is eliminated by outflows of capital from the capital-exporting country's advantaged industry, so foreign direct investment is a substitute for trade.

In the Japanese case, however, Kojima's argument is that the host-country's production frontier expands in such a direction that the (pre-

investment) comparatively advantaged industry expands and the comparatively disadvantaged industry contracts, thus enhancing the basis for trade.

This complements case is achieved by the Rybczynski line sloping in an opposite direction (the line linking the original production point and the post-capital inflow production point moves upwards). This effect cannot occur if homogeneous money capital, perfectly re-allocable to any industry, is the norm. Therefore Kojima suggests at this point that direct investment capital is a package involving technical knowledge and human-skill components (including management skills); it is therefore, to some extent, industry-specific. This capital moves to the host country because of comparative advantages in improving productivity in the host country; the resultant increase in profitability adds the motivation. Here Kojima introduces a crucial assumption: that productivity in the host country is increased more through direct investment in the labour-intensive industry than in the capital-intensive industry, because of 'the smaller technological gap and a greater spillover of technology to local firms' (1978: 126). The same amount of output is produced with proportionately smaller inputs of labour and capital. Hicks-neutral technological change is deemed to have taken place.

The critical factor in this model is the disproportionate effect on productivity, when sector-specific capital moves into the host's comparatively advantaged industry. The implicit assumption is that industry-specific public goods have been transferred—the proof of this is Kojima's (1978: 127) statements that the production frontier in the source country remains unchanged 'since the technology and managerial skills do not decrease even when they are applied abroad and since labour and capital are assumed unchanged' in the source country. For Kojima includes the assumption that direct foreign investment involves a negligible transfer of money capital.

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The comparative advantage in improving productivity can thus be seen as the result of the combination of internationally mobile inputs transferred by the investing (Japanese) firm that include managerial and organizational skills, with the vital addition of guaranteed access to (Japanese) markets and distributive networks, together with locationally immobile inputs, notably cheap labour. Kojima suggests that because of the sector-specific nature of these productivity-improving resources, it is easier for firms that possess such attributes to relocate abroad (outside Japan) rather than diversify into other domestic industries. Consequently, there is no presumption (unlike product-cycle-type US foreign direct investment) that the outward investors are the leading firms. Indeed, it is suggested that weaker firms, just exposed to exogenous shifts in comparative advantage, will be the most likely to be relocated in less developed countries.

The crucial element in Kojima's explanation of Japanese foreign direct investment is the improvement in productivity in the host country brought about by the infusion of the package of resources involved in Japanese investment. Of key importance is the market access brought by the link with a Japanese distribution network, and the organization skills of Japanese management when working with relatively unskilled or semi-skilled labour. The host-country unit, when taken over or set up by Japanese foreign direct investment, becomes integrated with a marketing network guaranteeing market access. The addition of a Japanese imprint enhances the quality image of the product. Japanese ownership therefore confers immediate benefits.

The specialist skills infused include those developed by Japanese enterprises in response to the particular stimuli they have faced in Japan: notably a cooperative rather than competitive environment, a docile and relatively cheap workforce and skills in organizing high-quality, mass-production systems. The range of industries over which these skills are crucial is very different from those where US and European firms have developed intra-industry specialisms; consequently the industrial structure of Japanese foreign direct investment is different from Western foreign direct investment. It has, however, been differentiated by Kojima more starkly than the version presented here by his concentration on a product-cycle interpretation of American-type foreign direct investment.

Japanese foreign direct investment represents a search for location-specific inputs (stable environment, low transport costs, but chiefly cheap labour) to complement the skills developed by Japanese enterprise. It corresponds to Western, chiefly US, firms' offshore production and exhibits a similar industry structure.

Japanese outward investment must indeed be explained by reference to locational criteria: notably the relative labour costs in nearby less developed countries as compared with Japan. The firm-specific skills of Japanese firms—access to a (world-wide) distribution network, organization ability, and managerial skills—differ significantly from the typical US or European multinational enterprise's strengths.

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Consequently, the industrial distribution of Japanese foreign direct investment differs from these other industrialized countries. Differentiation of Japanese foreign direct investment has been exaggerated by its comparison with product-cycle-type US foreign direct investment, which is at most only a subset of that country's outward investment—an explanation that has been outdated by events (Giddy 1978).

24.3.6 Synthesis: A General Theory of the Multinational Enterprise

There are now several candidates for a general theory of the multinational enterprise (see Casson 1987). Among these are Dunning's eclectic theory (1981), (1988), which relies on the ownership/location/internalization paradigm: ownership-specific advantages, location endowments, and internalization advantages. Several unresolved issues remain in this approach. First, the relationship between these three elements and their development over time is unclear and leaves a classification system bereft of a dynamic content. Secondly, the existence of separate (and separable) ownership advantages is doubtful and logically redundant because internalization explains why firms exist in the absence of such advantages.

Rugman (1981) claims that internalization in itself represents a general theory of the multinational enterprise. This is achieved partly by relegating location factors to a footnote by including spatial cost-saving as an internalized firm-specific advantage. Internalization requires restrictions on the relative sizes of internal and external transaction costs to have any empirical content; without a theory of this incidence, it remains tautological.

The markets and hierarchies approach associated with Oliver Williamson (1975, 1981, 1985) has also been advanced as a candidate for a general theory of the multinational enterprise (Calvet 1981). Williamson suggests that his general theory of why firms exist explains the existence of the multinational firm as a special case. Without a theory of the conditions under which one idea-type form (market or hierarchy) will be replaced by the other, only an arid, comparative, static framework remains. The transition from market to hierarchy may be explained by the minimization of transaction costs, once these have been carefully specified (Buckley and Casson 1985). The concept of bounded rationality in management decision-making utilized by Williamson is useful but it sits awkwardly within an essentially neoclassical framework. Further, Rugman's (1981) identification of hierarchy with internal market may be unjustified because internal organization may more closely resemble a perfect market, with transfer prices approximating to shadow prices of a perfect allocation, than the hierarchical mode.

The theory of the multinational firm therefore requires development in several directions before it can be seen to be adequate. First, the fusion between institutional

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and neoclassical elements must be made more secure. Secondly, the general area of the economics of business strategy is in need of greater attention. Thirdly, the role of time must be more carefully defined in the relationship between the growth (and decline) of firms, technologies, products, and industries. Finally, the formulation and testing of hypotheses from the theory is an urgent task (Buckley 1988).

Recently, further integration has been achieved between the purportedly incompatible approaches of internalization and market structure theories after Hymer. Buckley (1990) has shown that the two approaches are complementary, not competitive. Hymer himself, in a paper originally (1968) written in French and now republished (Casson 1990), used Coase's framework; the synthesis of the two approaches represents a step forward in theorizing.

24.4 The Challenge of Globalization²

² This section of the chapter draws on Buckley and Casson (1998).

Globalization can also have deleterious effects on MNEs. Most notable is the increase in volatility which globalization brings. The increased volatility in world economy has demanded new strategic choices for MNEs which have the search for flexibility at its core. Key elements of these strategies are:

- uncertainty and market volatility
- flexibility and the value of real options
- cooperation through joint ventures and business networks
- entrepreneurship, managerial competence, and corporate culture and
- organizational change, including the mandating of subsidiaries and the 'empowerment' of employees.

Flexibility maybe defined as the ability to reallocate resources quickly and smoothly in response to change. The significance of flexibility is greater, the greater the amplitude and frequency of change in the environment. So far as MNEs are concerned, the impact of change is captured by the volatility induced in the profit stream. The volatility of profit that would occur if the firm made no response to change summarizes the impact on the firm of volatility in its environment.

24.4.1 Increasing Volatility

Competition from Asia was a visible symbol of a less apparent but more fundamental change in the business environment—namely a persistent increase in the

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amount of volatility with which firms have to contend. Volatility has become much greater since the end of the 'golden age'. There are several reasons for this.

The international diffusion of modern production technology has increased the number of industrial powers, and hence increased the number of countries in which political and social disturbances can impact significantly on global supplies of manufactured products. The liberalization of trade and capital markets means that the 'ripple' effects of shocks travel farther and wider than before (Casson 1995: ch. 4). Ripples are transmitted more quickly too: news travels almost instantaneously, thanks to modern telecommunications. Thus, speculative bubbles in stock markets spread quickly around the world. Following the breakdown of the Bretton Woods system, exchange rate fluctuations have created a new dimension of financial volatility too.

As a result, any given national market is now affected by a much wider range of disturbances than ever before. Every national subsidiary of an MNE experiences a multiplicity of shocks from around the world. It is no longer the case that a national subsidiary has to respond to shocks originating in its national market alone. The shocks come from new sources of import competition and new competitive threats in export markets too. While most shocks reveal themselves to firms as competitive threats, new opportunities for cooperation may sometimes be presented as well. The awareness of this sustained increase in volatility has led to a search for more flexible forms of organization.

Increased volatility is not the only reason for greater interest in flexibility. Contemporary culture is very much opposed to building organizations around a single source of monopoly power. The nation state, for example, is under threat from advocates of regional government. The traditional role of the state, to supply defence, can in principle be effected through multilateral defence treaties in which politically independent regions club together for this specific purpose. The demise of the Soviet bloc, and the subsequent political realignment between its member states, may be seen as an example of this kind of cultural change at work. This distrust of monopoly power may be linked to an increase in other forms of distrust, as suggested below.

24.4.2 Opposition to Monopoly

The aversion to internal monopoly is apparent amongst MNEs as well. This movement began in the early 1980s when the powerful central research laboratories of high-technology MNEs were either closed down, shifted to the divisions, or forced to operate as suppliers to 'internal customers' in competition with outside bodies such as universities (Casson, Pearce, and Singh 1991). Headquarters bureaucracies came under attack shortly afterwards, as 'delayering' got underway. The

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favoured form of firm has become a federal structure of operating divisions drawing on a common source of internal expertise, but where each division belonging to the federation is free to outsource expertise if it so desires. As with any trend, there has been a tendency for certain advocates to take it to extremes. Just as the 'golden age' was rife with suggestions that oligopolies of hierarchical MNEs would come to dominate world markets, so the 1990s have spawned visions of the 'network firm' and the 'Virtual firm'.

24.4.3 Networks and Joint Ventures

The typical US MNE of the 'golden age' was a vertically as well as horizontally integrated firm. In consequence, each division of the firm was locked into linkages with other divisions of the same firm. As Asian competition intensified, there was growing recognition of the costs of integration of this kind.

Commitment to a particular source of supply or demand is relatively low-cost in a high-growth scenario, since it is unlikely that any investment will need to be reversed. It is much more costly in a low-growth scenario, where production may need to be switched to a cheaper source of supply, or sales diverted away from a depressed market. The desire for flexibility therefore discourages vertical integration—whether it is backward integration into production, or forward integration into distribution. It is better to subcontract production and to franchise sales instead. The subcontracting of production is similar in principle to the 'putting out' arrangement described above, but differs in the sense that the subcontractor is now a firm rather than just a single worker.

Dis-integration was also encouraged by a low-trust atmosphere that developed in many firms. Fear of internal monopoly became rife, as explained above. Production managers faced with falling demand wished that they did not have to sell all their output through a single sales manager. Sales managers resented the fact that they had to obtain all their supplies from the same small set of plants. Each manager doubted the competence of the others, and ascribed loss of corporate competitiveness to selfishness and inefficiency elsewhere in the firm. Divisions aspired to be spun off so that they could deal with other business units instead. On the other hand, managers were wary of the risks that would be involved if they severed their links with other divisions altogether. Dis-intermediation is favoured by the

growth of electronic commerce.

A natural way to restore confidence is to allow each division to deal with external business units as well as internal ones. In terms of internalization theory, internal markets become 'open' rather than 'closed' (Casson 1990: 37) This provides divisional managers with an opportunity to bypass weak or incompetent sections of the company. It also provides a competitive discipline on internal transfer prices,

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preventing their manipulation for internal political ends, and bringing them more into line with external prices. There are other advantages too. Opening up internal markets severs the link between the capacities operated at adjacent stages of production. The resulting opportunity to supply other firms facilitates the exploitation of scale economies because it permits the capacity of any individual plant to exceed internal demand. Conversely, it encourages the firm to buy in supplies from other firms that have installed capacity in excess of their own needs.

The alignment of internal prices with external prices increases the objectivity of profit measurement at the divisional level. This allows divisional managers to be rewarded by profit-related pay based on divisional profit rather than firm-wide profit. Management may even buy out part of the company. Alternatively, the firm may restructure by buying in a part of an independent firm. The net effect is the same in both cases. The firm becomes the hub of a network of interlocking joint ventures (Buckley and Casson 1988, 1996). Each joint venture partner is responsible for the day-to-day management of the venture. The headquarters of the firm coordinates the links between the ventures. Internal trade is diverted away from the weaker ventures towards the stronger ones, thereby providing price and profit signals to which the weaker partners need to respond. Unlike a pure external market situation, the partners are able to draw upon expertise at headquarters, which can in turn tap into expertise in other parts of the group.

A network does not have to be built around a single firm, of course. A network may consist of a group of independent firms instead. Sometimes these firms are neighbours, as in the regional industrial clusters described by Best (1990), Porter (1990), and Rugman, D'Cruz, and Verbeke (1995) Industrial districts, such as 'Toyota city', have been hailed as an Asian innovation in flexible management, although the practice has been common in Europe for centuries (Marshall 1919). As tariffs and transport costs have fallen, networks have become more international. This is demonstrated by the dramatic growth in intermediate product trade under long-term contracts. For example, an international trading company may operate a network of independent suppliers in different countries, substituting different sources of supply in response to both short-term exchange rate movements and long-term shifts in comparative advantage.

Flexibility is also needed in R&D. A firm cannot afford to become over-committed to the refinement of any one technology in case innovation elsewhere should render the entire technology obsolete. As technology has diffused in the post-war period, the range of countries with the competence to innovate has significantly increased. The pace of innovation has consequently risen, and the threat of rapid obsolescence is therefore higher as a result. The natural response for firms is to diversify their research portfolios. But the costs of maintaining a range of R&D projects are prohibitive, given the enormous fixed costs involved. The costs of basic R&D have escalated because of the increased range of specialist skills involved, while the costs of applied R&D have risen because of the need to develop

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global products which meet increasingly stringent consumer protection laws. Joint ventures are an appropriate solution once again. By establishing a network of joint ventures covering alternative technological trajectories, the firm can spread its costs whilst retaining a measure of proprietary control over new technologies. The advantage of joint ventures is further reinforced by technological convergence—e.g. the integration of computers, telecommunications, and photography. This favours the creation of networks of joint ventures based on complementary technologies, rather than on the substitute technologies described above (Cantwell 1995).

Joint ventures are important because they afford a number of real options (Trigeorgis 1996) which can be taken up or dropped depending upon how the project turns out. The early phase of a joint venture provides important information which could not be obtained through investigation before the venture began. It affords an opportunity later on to buy more fully into a successful venture—an opportunity which is not available to those who have not taken any stake. It therefore provides greater flexibility than does either outright ownership or an alternative involving no equity stake.

24.4.4 Strategies and Internal Organization of the MNE in a Globalized World Economy

In a very volatile environment the level of uncertainty is likely to be high. Uncertainty can be reduced, however, by collecting information. Flexibility was defined above in terms of the ability to respond to change. The costs of response tend to be smaller when the period of adjustment is long. One way of 'buying time' to adjust is to forecast change. While no one can foresee the future perfectly, information on the present and the recent past may well improve forecasts by diagnosing underlying long-term trends. Collecting, storing, and analysing

information there-fore enhances flexibility because by improving forecasts it reduces the costs of change.

Another way of buying time is to recognize change as early as possible. In this respect, continuous monitoring of the business environment is better than intermittent monitoring because the potential lag before a change is recognized is eliminated. Continuous monitoring is more expensive than intermittent monitoring, though, because more management time is tied up.

Investments in better forecasts and speedier recognition of change highlight the trade-off between information cost and adjustment cost. This trade-off is particularly crucial when volatility is high. High volatility implies that more information should be collected to improve flexibility, which in turn implies that more managers need to be employed. This is the reverse of the usual recommendation to downsize management in order to reduce overhead costs.

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To improve flexibility whilst downsizing management, the trade-off between information cost and adjustment cost must be improved. There are two main ways of doing this. The first is to reduce the cost of information processing through new information technology (IT). The second is to reduce adjustment costs by building flexibility into plant and equipment, both through its design and its location. A combination of IT investment and flexible plant can reconcile greater flexibility with lower management overheads in the manner to which many MNEs aspire.

The information required for strategic decision-making is likely to be distributed throughout the organization. It is no longer reasonable to assume that all the key information can be handled by a single chief executive, or even by the entire headquarters management team. It is difficult to know in advance where the really crucial information is likely to be found. Every manager therefore needs to have the competence to process information effectively. Managers need to be able to recognize the significance of strategic information that they acquire by chance, and to have the power of access to senior executives in order to pass it on. In other words, ordinary managers need to become internal entrepreneurs.

Few entrepreneurs have sufficient information to make a good decision without consulting other people, however. In a traditional hierarchical firm the right to consult is the prerogative of top management. If ordinary managers are to have the power to initiate consultation, and act upon the results, then channels of communication within the firm need to be increased. Horizontal communication as well as vertical communication must be easy, so that lower level managers can readily consult with their peers.

A natural response is to 'flatten' the organization and encourage managers to 'network' with each other. This improves the trade-off between local responsiveness and strategic cohesion (Bartlett and Ghoshal 1987; Hedlund 1993) Unfortunately, though, there has been some confusion over whether flatter organizations remain hierarchies at all. However, as Casson (1994) shows, the efficient managerial processing of information normally requires a hierarchical structure of some kind. The key point is that the more diverse are the sources of volatility, the greater are the advantages of widespread consultation. The less predictable is the principal source of volatility on any given occasion, the greater the incentive to allow consultation to be initiated anywhere in the organization. In practice this means that an increased demand for flexibility is best accommodated by flattening the organization whilst maintaining basic elements of hierarchy.

If flexibility were costless, then all organizations could build in unlimited flexibility at the outset. In practice, the greater flexibility is, the higher transaction costs become. The timing of decisions is absolutely crucial in a volatile environment. The right decision maybe of little use if it is taken at the wrong time (Rivoli and Salorio 1996). Committing resources too early to a growing market, for example, means that costs are incurred before adequate revenues can be generated, while deferring until too late means that the market may be permanently lost to

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competitors (Buckley and Casson 1981). An important reason for deferring investment is that new information may become available later which would lead to a better decision. This is the central point in the theory of options (Trigeorgis 1996). Investment is often irreversible, in the sense that the resources committed are illiquid, and cannot be fully recovered later through divestment. Deferring a decision on an irreversible investment reduces the risk that the investment may go ahead on a mistaken assessment of the situation (Campa 1994) The more volatile the environment, the more likely it is to change, and hence the greater the advantage of waiting until all imminent changes have occurred.

It would be wrong to infer, however, that investment is always discouraged by volatility. Investment often leads to the discovery of new information. Suppose, for example, that there are two foreign markets, one of which is known to be similar to the other. Investing in the smaller market involves a smaller commitment than investing in the larger one. A by-product of investment in the smaller market is information about the larger market. This information reduces the risk of investing in the larger one. It therefore pays to invest first in the smaller market, even though the prospects are worse than in the larger one, because the experience gained can be used to improve the later, more important, decision. This idea is central to the Scandinavian model of the internationalization of the firm (Johanson and Vahlne

1977)

In general, the growth of an MNE may be understood as a sequence of investments undertaken in a volatile environment, where each investment feeds back information which can be used to improve the quality of subsequent decisions. In this sense, the expansion of the firm is a path-dependent process (Kogut and Zander 1993). Most expositions of path-dependency assume, however, that the choice of path is essentially myopic, in the sense that decision-makers make no attempt to anticipate the kind of information that will get fed back at each stage. This need not be the case, though. An entrepreneurial firm may be able to anticipate how the information that it will obtain in the future depends on the decision that it currently has to make. In this case its managers can exploit the logical structure of this learning process to expand in an optimal manner. The sequence of industries into which the firm diversifies, and the sequence of the countries in which it invests, represents a rational dynamic strategy of growth.

Similarly, strategic divestment in response to competition may also be seen as a consequence of a rational dynamic strategy. In a volatile environment a rational firm will anticipate the possibility of competition by investing in a manner that takes subsequent divestment options into account. It will make only those investments that it is either unlikely to want to divest, or which will be easy to divest because the sunk costs involved are relatively low. The typical investment will involve assets that have several alternative uses, and are easy to sell off to other firms. Since assets of this kind are easy to obtain in the first place, through acquisition, the theory suggests that acquisitions and divestments of highly 'liquid'

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or 'non-specific' assets are likely to play a major role in flexible investment strategies. This is one reason why acquisitions and divestments became more common at the same time that international joint ventures (IJVs) became more common too. Both are implications of the strategic pursuit of flexibility in a volatile environment.

The pursuit of sophisticated strategies of this kind requires a great deal of information to be shared within the organization. It is crucial that this information is communicated in an honest manner. Integrity is often assured by repeated interaction, as explained by the theory of non-cooperative games (Kreps 1990). Alternatively, integrity can be assured by cultural engineering (Casson 1991). Cultural engineering within a firm can be effected in two main ways. One is by selecting people who have already been subjected to appropriate cultural influences. This explains why many firms recruit selectively from certain communities, educational institutions, and ethnic groups. Cultural homogeneity not only improves internal communication, but standardizes employees on a uniform set of moral values. The alternative is for the firm to recruit people purely on the basis of competence instead, and standardize the morals through active dissemination of a corporate culture. The first strategy allows the firm to 'free ride' on cultural engineering by other institutions, and reduces the demands on the chief executive's leadership role. The second strategy allows the firm to recruit more widely, and to tailor the moral system to its specific requirements. MNEs will tend to favour the latter strategy because they need to recruit a range of different nationalities, and to combine the expertise of members of very different professional groups.

24.5 The Future: Dynamic Market Entry

Consider the problem of modelling market entry from a dynamic rather than a static point of view (Chi and McGuire 1996). The most important new point to take into account is that the foreign market can decline as well as grow. Divestment or withdrawal must be considered as serious strategies. Clearly, these strategies do not apply until the market has been entered, but once it has been entered they may need to be used. Static models assume that the market will be constant, while very simple dynamic models, such as Buckley and Casson (1981) only suppose that the market will grow. In a volatile environment a market may grow to begin with, attracting investment, but then go into decline, requiring divestment instead.

Switching between strategies is costly, and the costs depend on both the strategy the firm is switching from and the strategy the firm is switching to. To preserve flexibility, it is important for the firm to choose at the outset strategies whose exit costs are low. This tends to favour exporting over host-country production, and

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licensing over internalization. In other words, it reveals foreign direct investment (FDI) as a high-risk strategy.

Switching decisions can be mistaken, however, because the information upon which they are based is poor. Expected switching costs are reduced by avoiding unnecessary switches. Different strategies afford different opportunities for capturing information from the host environment and feeding it back to inform subsequent switching decisions.

FDI offers better opportunities for information capture than either licensing or exporting, since ownership of assets confers ownership of information too. This means, for example, that if volatility caused the market to grow unexpectedly, then the foreign investor would

recognize this quickly. Since it is often cheaper to expand existing capacity than to build from scratch, the foreign investor also faces lower costs of capacity expansion than does an exporter who decides to switch to foreign production at this stage. While exporting continues to confer more flexibility in response to market decline, therefore, foreign investment confers more flexibility in respect of market growth.

Is it possible to find a strategy with a better combination of characteristics than either exporting, licensing, or FDI? An IJV may provide the answer (Kogut 1991). Investing in a 50:50 partnership with a host-country producer lays off some of the risks associated with wholly-owned FDI. At the same time information capture remains reasonably good. There is an option to expand capacity if there is unexpected market growth, and a further option to increase commitment by buying the partner out. There is also an easy option to withdraw by selling out to the partner. The partner provides a ready market for divested assets that an ordinary direct investor lacks. There is a down-side, of course—an obvious problem is that the partners may themselves become a source of volatility. This is why trust is such an important element in an IJV. In this way the emphasis on risk management within the new research agenda leads to the emergence of new 'compromise strategies' which would be dominated by more conventional strategies were it not for the 'option value' they possess within a volatile environment.

IJV options can only be exercised once, of course, unless the investor switches back to an IJV arrangement at a later date, when they can be exercised all over again. This explains IJV instability as a rational response to the role that IJVs fulfil. An IJV in which the options are never exercised is probably inferior to a wholly-owned investment, while an IJV where options are exercised at the first available opportunity does not last for very long. When IJVs are chosen because of their option value, it is normally inefficient both to switch out right away or to never switch at all. The optimal timing of a switch is one at which uncertainty about future market growth is dispelled for a reasonable period of time. This implies that the duration of IJVs is, on average, fairly short, and relatively variable.

The globalization of markets has been a major factor in the growth of volatility, as explained above. A feature of many global markets is the use of regional production

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and distribution hubs, where several neighbouring countries are serviced from the same location. The regional hub, like the IJV, can be understood as a strategy that offers superior flexibility. Just as an IJV offers a compromise ownership strategy, a regional hub offers a compromise location strategy. Because the hub is nearer to each market than is the home location, it reduces transport costs, and offers better information capture too. Yet because it is close to several markets, it avoids exclusive commitment to any one. If one market declines, production can be switched to other markets instead. Provided the shocks affecting the national markets are independent (or less than perfectly correlated, at any rate) the hub provides gains from diversification. These are real gains that only the firm can achieve, as opposed to the financial gains from unrelated product diversification, which have proved disappointing in the past because they are best exploited through the diversification of individual share portfolios instead.

The two strategies of IJV and hub can be combined. Since one is an ownership strategy and the other a location strategy they can, if desired, be combined directly in an IJV production hub. Closer examination of the issues suggests that this is not normally the best approach, however. The model suggests that a combination of a wholly-owned production hub supplying IJV distribution facilities in each national market is a better solution. A hub facility is too critical to global strategy to allow a partner to become involved, because the damage they could do is far too great. Even with a wholly-owned hub facility, the combination still affords considerable flexibility to divest or withdraw from any single market. The advantage of the combination is that when divesting, the distribution facility can be sold to the partner, while the production capacity can be diverted to markets elsewhere. These options for divestment are combined with useful options for expansion too.

This example illustrates the crucial role that the concepts of flexibility and volatility play in analysing foreign market entry in the modern global economy. Without these concepts, it is impossible to fully understand the rationale for IJVs and production hubs. It is also impossible to understand why these strategies have emerged at this particular historical juncture and not before.

The attacks on New York and Washington on 11 September 2001 have introduced a radical discontinuity into the world system of trade, finance, and investment. This will introduce new elements of political uncertainty to add to the volatility already faced by companies. It is possible that the aftermath of the attacks will represent a setback to the continued integration of markets which globalization represents. This may accelerate regionalization as opposed to globalization (Rugman 2000). It may represent fragmentation of several previously integrated global markets and networks (e.g. international supply chains). It may accelerate the trends towards localization rather than internationalization which were becoming evident in several industrial sectors. The confidence with which international firms face world supply chains and world markets is bound to receive a severe setback. It is indicative of the high levels of uncertainty facing business that a clear future

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scenario (or more likely alternative scenarios with different degrees of probabilistic outcomes) is less clear at the end of September 2001 than it was at its beginning.

24.6 Summary

This chapter has connected globalization with an increase in volatility in the world economy. More shocks are being generated, and these shocks are more rapidly distributed around the world system. Multinational enterprises play a role in generating these shocks (by, for instance, relocation decisions), transmitting them (through foreign exchange transactions for instance), and responding to them (re-configuring activities). These roles can be summed into the requirement for extra flexibility by firms. This imperative has implications for the external environment in which multinational firms operate, for the boundaries of the firm and for the firms' internal organization. These changes feed back to a new round of changes in market and to further global integration. This dynamic system has profound implications outside companies and world markets. Our understanding relies on concepts from the theory of the multinational enterprise, suitably amended for the changed conditions of the globalizing economy.

References

Aharoni, Yair (1966). *The Foreign Investment Decision Process*. Boston: Graduate School of Business Administration, Harvard University.

Arrow, Kenneth J. (1962). 'Economic Welfare and the Allocation of Resources for Invention', in National Bureau of Economic Research, *The Rate and Direction of Inventive Activity*. Princeton: Princeton University Press. Reproduced in D. M. Lambertson (ed.) (1971). *Economics of Information and Knowledge*. Harmondsworth: Penguin.

Bartlett, Christopher A., and Ghoshal, Sumantra (1987). 'Managing Across Borders: New Strategic Requirements'. *Sloan Management Review*, Summer: 6–17.

——— (1989). *Managing Across Borders: The Transnational Solution*. Boston: Hutchinson Business Books.

Best, Michael H. (1990). *The New Competition: Institutions of Industrial Restructuring*. Oxford: Polity Press.

Buckley, Peter J. (1983a). 'New Theories of International Business: Some Unresolved Issues', in Mark Casson (ed.), *The Growth of International Business*. London: George Allen & Unwin.

end p.722

——— (1983b). 'Macroeconomic versus the International Business Approach to a Direct Foreign Investment: A Comment on Professor Kojima's Approach'. *Hitotsubashi Journal of Economics*, 24/1 (June): 95–100.

——— (1985a). 'The Economic Analysis of the Multinational Enterprise: Reading versus Japan?' *Hitotsubashi Journal of Economics*, 26/2 (Dec): 117–24.

——— (1985b). 'New Forms of International Industrial Cooperation', in Peter J. Buckley and Mark Casson, *The Economic Theory of the Multinational Enterprise*. London: Macmillan.

——— (1988). 'The Limits of Explanation: Testing the Internalization Theory of the Multinational Enterprise'. *Journal of International Business Studies*, 19/2: 1–16.

——— (1990). 'Problems and Developments in the Core Theory of International Business'. *Journal of International Business Studies*, 21/4: 657–65. [Link](#)

——— and Carter, Martin J. (1996). 'The Economics of Business Process Design: Motivation, Information and Co-ordination within the Firm'. *International Journal of the Economics of Business*, 3/1: 5–25. [Link](#)

——— and Casson, Mark C. (1976). *The Future of the Multinational Enterprise*. London: Macmillan.

——— (1981). 'The Optimal Timing of a Foreign Direct Investment'. *Economic Journal*, 91: 75–87. [Link](#)

——— (1985). *The Economic Theory of the Multinational Enterprise*. London: Macmillan.

——— (1988). 'A Theory of Co-operation in International Business', in Farok J. Contractor and Peter Lorange (eds.), *Co-operative Strategies in International Business*. Lexington, Mass.: Lexington Books, 31–53.

——— (1993). 'Economics as an Imperialist Social Science'. *Human Relations*, 46/9: 1035–52. [Link](#)

——— (1996). 'An Economic Model of International Joint Venture Strategy'. *Journal of International Business Studies* , 27/5: 849–76.



——— (1998). 'Models of Multinational Enterprise'. *Journal of International Business Studies* , 29/1: 29–44.

——— and Chapman, Malcolm (1996). 'Economics and Social Anthropology—Reconciling Differences'. *Human Relations*, 49/9: 1123–50.



——— and Davies, Howard (1981). 'Foreign Licensing in Overseas Operations: Theory and Evidence from the UK', in R. G. Hawkins and A. J. Prasad (eds.), *Technology Transfer and Economic Development* . Greenwich, Conn.: JAI Press.

——— and Pearce, Robert D. (1979). 'Overseas Production and Exporting by the World's Largest Enterprises—A Study in Scouring Policy'. *Journal of International Business Studies* , 10/1: 9–20.

——— (1981). 'Market Servicing by Multinational Manufacturing Firms: Exporting Versus Foreign Production'. *Managerial and Decision Economics*, 2/4 (Dec): 229–46.

——— (1984). 'Exports in the Strategy of Multinational Firms'. *Journal of Business Research* , 12/2 (June): 209–26.

Calvet, A. L. (1981). 'A Synthesis of Foreign Direct Investment Theories and Theories of the Multinational Firm'. *Journal of International Business Studies*, 12: 43–60.

Campa, Jose Manuel (1994). 'Multinational Investment under Uncertainty in the Chemical Processing Industries'. *Journal of International Business Studies*, 25/3: 557–78.

Cantwell, John (1995). 'Multinational Enterprises and Innovatory Activities: Towards a New Evolutionary Approach', in J. Molero (ed.), *Technological Innovation, Multinational Corporations and the New International Competitiveness* . Chur: Harwood Academic Publishers, 21–57.

end p.723

Casson, Mark (1979). *Alternatives to the Multinational Enterprise*. London: Macmillan.

——— (1981). 'Foreword', in Alan M. Rugman, *Inside the Multinational*. London: Croom Helm.

——— (1985a). 'Transaction Costs and the Theory of the Multinational Enterprise', in Peter J. Buckley and Mark Casson, *The Economic Theory of the Multinational Enterprise*. London: Macmillan.

——— (1985b). 'Multinational and the Intermediate Product Trade', in Peter J. Buckley and Mark Casson, *The Economic Theory of the Multinational Enterprise*. London: Macmillan.

——— (1987). *The Firm and the Market* . Oxford: Basil Blackwell.

——— (1990). *Enterprise and Competitiveness* . Oxford: Clarendon Press.

——— (1991). *Economics of Business Culture* . Oxford: Clarendon Press.

——— (1994). 'Why are Firms Hierarchical?' *International Journal of the Economics of Business* , 1/1: 3–40.

——— (1995). *Organization of International Business* . Aldershot: Edward Elgar.

——— Pearce, Robert D. and Singh, Satwinder (1991). 'A Review of Recent Trends', in M. Casson (ed.), *Global Research Strategy and International Competitiveness*. Oxford: Blackwell, 250–71.

Caves, Richard E. (1996). *Multinational Enterprise and Economic Analysis* (2nd edn). Cambridge: Cambridge University Press.

Chi, Tailan, and Mcguire, Donald J. (1996). 'Collaborative Ventures and Value of Learning: Integrating the Transaction Cost and Strategic Option Perspectives on the Choice of Market Entry Modes'. *Journal of International Business Studies* , 27/2: 285–307.

Coase, Ronald H. (1973). *The Location of International Firms in an Enlarged EEC: An Exploratory Paper* . Manchester: Manchester Statistical Society.

Dempster, Michael A. H., and Pliska, Stanley R. (eds.) (1997). *Mathematics of Derivative Securities* . Cambridge: Cambridge University Press.

Dixit, Avrinash, and Pindyck, Robert S. (1994). *Investments under Uncertainty* . Princeton: Princeton University Press.

Dunning, John H. (1972). *The Location of International Firms in an Enlarged EEC: An Exploratory Paper*. Manchester: Manchester Statistical Society.

— (1977). 'Trade, Location of Economic Activity and the Multinational Enterprise: The Search for an Eclectic Approach', in B. Ohlin, P. O. Hesselborn, and P. M. Wijkman (eds.), *The International Location of Economic Activity*. London: Macmillan.

— (1981). *International Production and the Multinational Enterprise*. London: George Allen & Unwin.

— (1988). *Explaining International Production*. London: Unwin Hyman.

— (1993). *Multinational Enterprises in the Global Economy*. Wokingham, Berks.: Addison-Wesley.

— (1997). *Alliance Capitalism and Global Business*. London: Routledge.

Ergas, Henry (1987). 'Does Technology Policy Matter?' in B. R. Guile and H. Brooks (eds.), *Technology and Global Industry*. Washington, DC: National Academy Press, 191–245.

Fransman, Martin (1995). *Japans Computer and Communications Industry*. Oxford: Oxford University Press.

end p.724

Geringer, J. Michael, and Hébert, Louis (1989). 'Control and Performance of International Joint Ventures'. *Journal of International Business Studies*, 20/2: 235–54. [Link](#)

Giddy, Ian H. (1978). 'The Demise of the Product Cycle Model in International Business Theory'. *Columbia Journal of World Business*, 13: 90–7.

Hedlund, Gunnar (1993). 'Assumptions of Hierarchy and Heterarchy: An Application to the Multinational Corporation', in S. Ghoshal and E. Westney (eds.), *Organization Theory and the Multinational Corporation*. London: Macmillan, 211–36.

Hirsh, Seev H. (1967). *The Location of Industry and International Competitiveness*. Oxford: Oxford University Press.

Hood, Neil, and Young, Stephen (1994). 'The Internationalization of Business and the Challenge of East European Business', in P. J. Buckley and P. N. Ghauri (eds.), *The Economics of Change in East and Central Europe*. London: Academic Press, 320–42.

Horst, T. O. (1972). 'The Industrial Composition of US Exports and Subsidiary Sales to the Canadian Market'. *American Economic Review*, 57: 37–45.

Hufbauer, G. C. (1966). *Synthetic Materials and the Theory of International Trade*. London: Duckworth.

Hymer, Stephen H. (1968). 'The Large Multinational "Corporation": An Analysis of Some Motives for the International Integration of Business'. *Revue Economique*, 19/6: 949–73. English version in Mark Casson (ed.), *Multinational Corporations*. Aldershot: Edward Elgar.

— (1976). *The International Operations of National Firms*. Cambridge, Mass.: Mit Press.

Johanson, Jan, and Vahlne, Jan-Erik (1977). 'The Internationalization Process of the Firm—A Model of Knowledge Development and Increasing Foreign Market Commitments'. *Journal of International Business Studies*, 8/1: 23–32. [Link](#)

Johnson, Harry G. (1970). 'The Efficiency and Welfare Implications of the International Corporation', in C. P. Kindleberger (ed.), *The International Corporation*. Cambridge, Mass.: Mit Press.

Kindleberger, C. P. (1969). *American Business Abroad*. New Haven: Yale University Press.

Kogut, Bruce (1991). 'Joint Ventures and the Option to Expand and Acquire'. *Management Science*, 37/1: 19–33. [Link](#)

— and Zander, Udo (1993). 'Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation'. *Journal of International Business Studies*, 24/4: 625–45. [Link](#)

Kojima, K. (1978). *Direct Foreign Investment: A Japanese Model of Multinational Business*. London: Croom Helm.

— (1982). 'Macroeconomic versus International Business Approach to Direct Foreign Investment'. *Hitotsubashi Journal of Economics*, 23/1:1–19.

— and Ozawa, T. (1984). 'Micro and Macro Models of Direct Foreign Investment: Towards a Synthesis'. *Hitotsubashi Journal of Economics*, 25/1:1–20.

Kreps, David M. (1990). *Game Theory and Economic Modelling*. Oxford: Oxford University Press. [Link to OSO X-Reference](#)

Krugman, Paul (1995). *Development, Geography and Economic Theory*. Cambridge, Mass.: MIT Press.

Lall, Sanjaya, and Streeten, Paul (1977). *Foreign Investment, Transnationals and Developing Countries*. London: Macmillan.

Magee, S. P. (1977). 'Multinational Corporations, Industry Technology Cycle and Development'. *Journal of World Trade Law*, 11: 297–321.

end p.725

Marris, Robin L. (1979). *The Theory and Future of the Corporate Economy and Society*. Amsterdam: North-Holland.

Marshall, Alfred (1919). *Industry and Trade*. London: Macmillan.

Mello, Antonio S., Parsons, John E. and Triantis, Alexander J. (1995). 'An Integrated Model of Multinational Flexibility and Hedging Policies'. *Journal of International Economics*, 39/Aug.: 27–51. [Link](#)

Mirza, Hafiz (1986). *Multinationals and the Growth of the Singapore Economy*. London: Croom Helm.

Nelson, Richard, and Winter, Sidney G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press.

Ozawa, T. (1979a). *Multinationalism, Japanese Style: The Political Economy of Outward Dependency*. Princeton: Princeton University Press.

— (1979b). 'International Investment and Industrial Structure: New Theoretical Implications from the Japanese Experience'. *Oxford Economic Papers*, 31: 72–92.

Porter, Michael E. (1990). *The Competitive Advantage of Nations*. London: Macmillan.

— (1991). 'Towards a Dynamic Theory of Strategy'. *Strategic Management Journal*, 12/Special Issue: 95–117. [Link](#)

Rangan, Subramanian, and Lawrence, Robert Z. (1999). *A Prism on Globalization*. Washington, DC: Brookings Institution Press.

Rivoli, Pietra, and Salorio, Eugene (1996). 'Foreign Direct Investment under Uncertainty'. *Journal of International Business Studies*, 27/2: 335–54. [Link](#)

Rugman, Alan M. (1981). *Inside the Multinationals*. London: Croom Helm.

— (2000). *The End of Globalisation*. London: Random House.

— D'Cruz, Joseph R., and Verbeke, Alain (1995). 'Internalisation and de-internalisation: Will Business Networks Replace Multinationals?', in G. Boyd (ed.), *Competitive and Cooperative Macromanagement: The Challenge of Structural Interdependence*. Aldershot: Edward Elgar, 107–28.

Teece, David (1983). 'Technological and Organisational Factors in the Theory of the Multinational Enterprise', in Mark Casson (ed.), *The Growth of International Business*. London: George Allen & Unwin.

Trigeorgis, Lenos (1996). *Real Options*. Cambridge, Mass.: MIT Press.

Vaitsos, C. V. (1974). *Intercountry Income Distribution and Transnational Enterprises*. Oxford: Oxford University Press.

Vernon, Raymond (1966). 'International Investment and International Trade in the Product Cycle'. *Quarterly Journal of Economics*, 80: 190–207. [Link](#)

— (1974). 'The Location of Economic Activity', in John H. Dunning (ed.), *Economic Analysis and the Multinational Enterprise*. London: George Allen & Unwin.

— (1979). 'The Product Cycle Hypothesis in a New International Environment'. *Oxford Bulletin of Economics and Statistics*, 41: 225–67.

Williamson, Oliver E. (1975). *Markets and Hierarchies: Analysis and Anti-trust Implications*. New York: Free Press.

— (1981). 'The Modern Corporation: Origins, Evolution, Attributes'. *Journal of Economic Literature*, 19: 1537–68.

— (1985). *The Economic Institutions of Capitalism*. New York: Free Press.

Wu, Shih-Yen (1988). *Production, Entrepreneurship and Profits*. Oxford: Blackwell.

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21 Cooperative Strategy: Strategic Alliances and Networks

David Faulkner

21.1 Introduction

THE objectives of this chapter are to establish the rationale for cooperation between companies, to investigate the motives for developing cooperative relationships, to identify the nature and functioning of strategic alliances, and to identify the nature and functioning of strategic networks.

In recent times cooperative forms of doing business have grown rapidly, and continue to do so as firms of all sizes and nationalities in an increasing number of industries and countries perceive value in such arrangements. At this moment in history the companies of the East are showing themselves to be able to compete successfully against those of the West in an increasing number of industries. Despite the West's claims to be the birthplace of the industrial capitalist system, its economic dominance for the nineteenth century and the first half of the twentieth, and its emergence from World War II in a position of supreme power, world leadership in automobiles, electronics, steel, textiles, shipbuilding, and pharmaceuticals either

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has passed or arguably is in the process of passing to the East, despite somewhat of a hiccup in recent years.

If there is one key difference between the West and the East in business philosophies, it is that the West is individualistic and competitive right down to a person to person level, whilst the East is collective and cooperative within dense networks of relationships. Perhaps, many commentators argue, this is the basis of its strength. If so, it is important that the West understand this philosophy, and if it is to be competitive perhaps adopt those aspects of it that are culturally congruent with its own way of doing things.

21.2 The Rationale for Cooperation

Cooperative activity between firms has become increasingly necessary due to the limitations and inadequacies of individual firms in coping successfully with a world where markets are becoming increasingly global in scope, technologies are changing rapidly, vast investment funds are regularly demanded to supply new products with ever-shortening life cycles, and the economic scene is becoming characterized by high uncertainty and turbulence. Strategic alliances, joint ventures, dynamic networks, constellations, cooperative agreements, collective strategies, and strategic networks all make an appearance and develop significance. In tune with the growth of cooperative managerial forms, the reputation of cooperation has over the last decade enjoyed a notable revival, to set against the hitherto dominant strength of the competitive model as a model of resource allocation efficiency.

Why is this revival of the popularity of cooperation coming about, since the obvious problem with cooperating with your competitor is that he may steal your secrets? If this is the case, then how can cooperation be justified? A look at the situation found in the Prisoners' Dilemma situation described below shows how cooperation can be the best policy for both partners.

In 1951 Merrill Flood of the Rand Corporation developed a model later termed the Prisoners' Dilemma by Albert Tucker. It addresses the issue of how we individually balance our innate inclination to act selfishly against the collective rationality of individual sacrifice for the sake of the common good including ourselves. John Casti in his book *Paradigms Lost* (1991) illustrates the difficulty effectively:

In Puccini's opera *Tosca*, Tosca's lover has been condemned to death, and the police chief Scarpia offers Tosca a deal. If Tosca will bestow her sexual favours on him, Scarpia will spare her lover's life by instructing the firing squad to load their rifles with blanks. Here both Tosca and Scarpia face the choice of either keeping their part of the bargain or double-crossing the other. Acting on the basis of what is best for them as individuals both Tosca and Scarpia try a

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double-cross. Tosca stabs Scarpia as he is about to embrace her, while it turns out that Scarpia has not given the order to the firing squad to use blanks. The dilemma is that this outcome, undesirable for both parties, could have been avoided if they had trusted each other and acted not as selfish individuals, but rather in their mutual interest.

Analytically as shown in Figure 21.1 below, there are two parties and both have the options of cooperating (C) or defecting (D).

If the maximum value to each of them is 3 (a positive benefit with no compromise involved) and the minimum value 0, then the possible

outcomes and values for A are as shown below:

- **A defects and B cooperates.** A scores 3 (and B scores 0: Total 3). Tosca gets all she wants without making any sacrifices. This would have happened if Tosca had killed Scarpia, and Scarpia had loaded the rifles with blanks thus enabling Tosca's lover to escape.
- **A cooperates and B cooperates.** A scores 2 (and B scores 2: Total 4). Tosca, although saving her lover's life, has to submit sexually to Scarpia in order to do so, which it is presumed represents a sacrifice for her. Similarly Scarpia's compromise involves not killing Tosca's lover.
- **A defects and B defects.** A scores 1 (and B scores 1: Total 2). This is what happened. At least Tosca has killed the evil Scarpia, but he in turn has killed her lover. Not a

		B Column player (Scarpia)	
		Cooperate	Defect
A Row player (Tosca)	Cooperate	A = 2, B = 2 Reward for mutual cooperation	A = 0, B = 3 Sucker's pay-off and temptation to defect
	Defect	A = 3, B = 0 Temptation to defect and sucker's pay-off	A = 1, B = 1 Punishment for mutual defection

Fig. 21.1 The prisoners'dilemma

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successful outcome for Tosca or Scarpia, however, but marginally better for her than the fourth possibility.

- **A cooperates and B defects.** A scores 0 (and B scores 3: Total 3). This is the worst outcome from Tosca's viewpoint. She has surrendered herself to Scarpia, but he has still executed her lover. This is the 'sucker's pay-off', and to be avoided if possible at all costs.

The dilemma is that, since Tosca (A) does not know what Scarpia (B) will do, she is likely rationally to defect in order to avoid the sucker's pay-off. Thus, she may score 3 if Scarpia is as good as his word and she can make him the sucker. She will at least score 1. However, if both cooperate they will each score 2 which is the best joint score available. Yet in the absence of trust it is unlikely to be achieved.

In the situation of a cooperative agreement then, the optimal joint score can only be achieved through genuine trusting cooperation; yet this may be difficult to achieve if both parties in the alliance are overly concerned not to be the sucker, and are thus reluctant to release their commercial secrets, for fear that their partner will defect with them. One prisoner defects because he fears that the other one will, and he will end up as the 'sucker'.

However, the pay-off listed above only applies to a single shot game. In a situation where the partners intend to work with each other over an indeterminate period, the situation changes. In this case, trust can be built and the potential synergies from cooperation can be realized. Furthermore, reputation comes into the equation. If one partner is seen to defect, he may find it difficult to attract further partners in the future. And if both partners are still reluctant to cooperate in a genuine fashion, the risk-reward ratio can be changed deliberately. If, in the Tosca defection situation, the defector immediately forfeits his or her life the incentive to defect is radically reduced. In the more prosaic world of business, this might mean that a potential defector automatically forfeits a large sum of money or shares in the event of defection. Thus, the situation can be constructed in such a way that the dominant strategy is one of cooperation. A cooperative strategy can then become a stable way of combining the competences of multiple partners to achieve a competitive strategy with competitive advantage. In sum:

1. The rational strategy of defection (competition) applies on the assumption of a zero-sum game, and a non-repeatable experience, i.e. if you are only in business for a single trade (e.g. buying a souvenir in a bazaar in Morocco), defection is a rational strategy for you.

2. As soon as the game becomes non zero-sum, e.g. through scale economies, and/or it is known that the game will be played over an extended time period or defection is costly, the strategy of defection is likely to become sub-optimal, i.e. to cooperate and keep your bargain is a better strategy for both players. At the very least if you defect, it will harm your reputation. You will become known as a player not to be trusted.

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3. In these circumstances then, forgiving cooperative strategies are likely to prove the most effective.

Corporate organizational form has also been dramatically influenced by the globalization of markets and technologies, through a decline in the automatic choice of the integrated multinational corporation as the only instrument appropriate for international business development. The movement away from the traditional concept of the firm is accentuated by the growth of what Handy (1992) describes as 'The Federated Enterprise' seen both in the form of newly created joint ventures between existing companies and in the development of so-called virtual corporations where a number of companies cooperate in producing a single-product offering generally under a distinct brand name.

The recent growth of alliances and networks approaches the flexible transnational structure from the other end, i.e. the amalgamation of previously independent resources and competencies in contrast to the unbundling into a federal structure of previously hierarchically controlled resources and competencies (of Figure 21.2). Where the traditional concepts of firm, industry, and national economy start to become concepts of declining clarity, and thus to lose their exclusive usefulness as tools for strategic analysis, the need for an adequate theory of strategic alliances and other cooperative network strategies assumes increased importance.

The search for sustainable competitive advantage is of course what the whole game is about. Yet this is a factor that can often not be measured directly. Its extent can only be inferred from the measurement of other factors like profit, market share, and sales turnover. It is nonetheless the Holy Grail which all firms seek to find and to maintain. Coyne (1986) identifies it as stemming from:

- (1) customers' perception of a consistent superiority of the attributes of one firm's products to its competitors;
- (2) this being due to a capability gap;
- (3) the capability gap being durable over time;

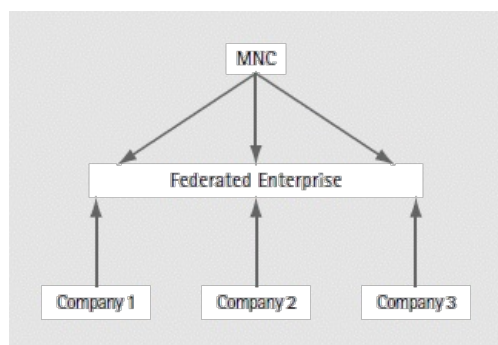


Fig. 21.2 Federated enterprises are developing from both directions

- (4) the superiority being difficult to imitate.

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It is this configuration of knowledge, skills, core competencies, and superior products that strategic alliances and networks seek to achieve, where the partners believe that they cannot achieve it alone.

Cooperative activity is frequently implicitly founded on the resource-based theory of competitive advantage. This theory (Grant 1991) holds that competitive advantage is most productively sought by an examination of a firm's existing resources and core competencies, an assessment of their profit potential, and the selection of strategies based upon the possibilities this reveals.

The task is then to assess the current core competencies the firm has, and fill what ever resource or competency gap is revealed by the inventory-taking of existing resources and competencies, in relation to the perceived potential profit opportunities. This is where strategic alliances and networks come in. The matrix below suggests how the make/buy/ally decision should be influenced both by the strategic importance of the activity in question and by the firm's competence at carrying it out. Under this schema, alliances should be formed if the activity is at least moderately strategically important, and the firm is only fairly good at carrying it out (cf. Figure 21.3).

The resource-based theory of competitive advantage suggests that a firm should not invest in an enterprise not strongly related to its own

core competencies. Only strategies based upon existing core competencies could, it would hold, lead to the acquisition and maintenance of sustainable competitive advantage. The

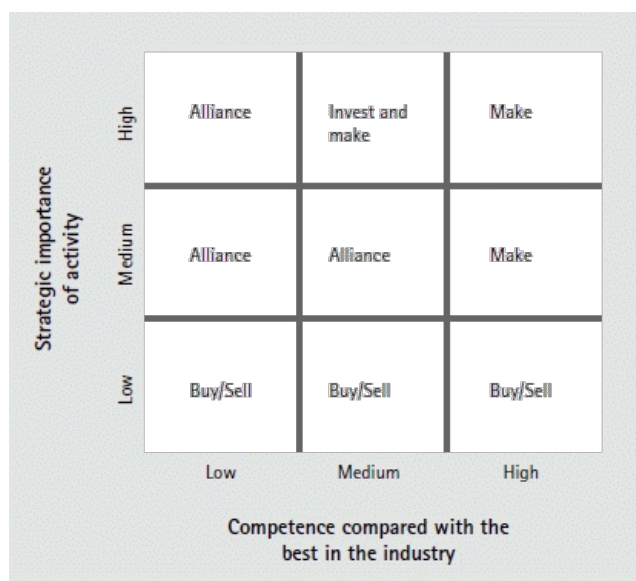


Fig. 21.3 The make/buy/ally matrix

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resource-based approach emphasizes that firms do not always tend towards similarity, and markets towards commodity status, in a situation of stable equilibrium. If the opportunity requires certain competencies in addition to those already present within the firm, a strategic alliance with a partner with complementary skills and resources or a network of complementary companies may represent a low risk way of overcoming that deficiency.

The resource dependency perspective (RDP) theory (similar to but different from the resource-based theory of the firm) (Pfeffer and Salancik 1978) proposes that the key to organizational survival is the ability to acquire and maintain resources, rather than to make profit. Thus, in the last resort it is organizational power, and the capacity of the organization to preserve itself, that determines competitive survival, not merely organizational efficiency. The unit of analysis for the RDP is the organization: environment relationship not the individual transaction. To deal with this uncertainty, firms attempt to manage their environment by cooperating with key parts of it, e.g. by cooperating with other companies owning key resources for them. An RDP approach treats the environment as a source of scarce resources, and therefore views the firm as dependent on other firms also in the environment. Resource dependency theory stems from the much earlier theory of social exchange which holds that where organizations have similar objectives, but different kinds or different combinations of resources at their disposal, it will often be mutually beneficial to the organizations in the pursuit of their goals to exchange resources. Classical international trade theory is based on similar foundations. Organizations have as their rationale to seek to reduce uncertainty, and enter into exchange relationships to achieve a negotiated and more predictable environment. Sources of uncertainty are scarcity of resources, lack of knowledge of how the environment will fluctuate, of the available exchange partners, and of the costs of transacting with them. These are all factors very commonly found in the modern business world.

The degree of a firm's dependence on a particular resource is a function of the critical nature of the resources in the exchange to the parties involved, and of the number of and ease of access to alternative sources of supply. Where few alternatives exist, and the resources are essential, a state of dependency exists. This creates a power differential between trading partners, and the dependant firm faces the problem of how to manage its resources with the concomitant loss of independence, since unchecked resource dependence leads to a state of strategic vulnerability. Such strategic vulnerability can be tackled in a number of ways. Western firms may do it for example by multiple sourcing of materials and components, internal restructuring, merger or acquisition; Japanese ones by the establishment of semi-captive suppliers within keiretsu groups. The establishment of a strategic alliance can thus be regarded as an attempt by a firm or firms to reduce strategic vulnerability, and hence to overcome perceived constraints on their autonomy in choosing their strategic direction. Strategic alliances and networks can be seen as attempts by firms to establish a negotiated environment, and thus to reduce uncertainty. On the

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basis of this argument, alliances and networks will occur most when the level of competitive uncertainty is greatest.

In RDP motivated alliances and networks, all parties typically strive to form relationships with partners with whom balance can be achieved at minimum cost, and with a desirable level of satisfaction and determinacy. Thus, wherever possible they will link up with firms of a similar size and power in order to avoid being dominated and hence have their vulnerability increased.

Strategic alliances are frequently formed from resource dependency motives, and the ability of the partners to achieve and sustain competitive advantage in their chosen market is strongly influenced by the degree to which they place corporate learning as a high priority on their alliance agenda, and seek to cause the alliance to evolve in a direction based on that learning. In a sense, corporate learning can be seen as the dynamic counterpart to the resource dependency theory of the firm. Thus, a firm will diagnose its resource and skill deficiencies in relation to a particular external challenge, and through the process of deliberate and planned corporate learning set about remedying its weaknesses. Truly strategic alliances are generally competence driven, i.e. explicitly adding to either the task or the knowledge system or to the organizational memory of each partner. The idea of the organization as a residuary for learning is a popular one. Decision theory emphasizes the importance of the search for information to enable organizations to make informed choices. Prahalad and Hamel (1990) stress the role of learning as a source of competitive advantage, through the development of unique competencies.

Strategic networks, on the other hand, are more likely to be formed for skill substitution reasons, e.g. company A forms a network with companies B and C who carry out specific functions, e.g. R&D or sales and marketing, whilst A does the production. Figure 21.4 illustrates the differing situations of networks and alliances.

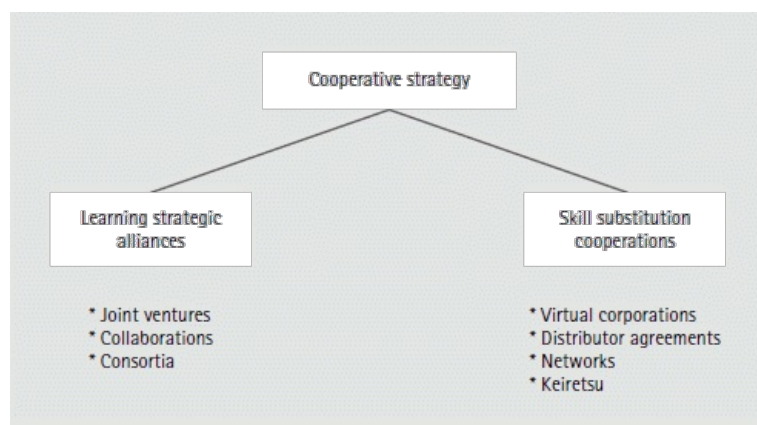


Fig. 21.4 Coop strategies fall into two distinct types

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Even faced with success stories of the evolution of an alliance through mutual learning leading to competitive advantage, nagging doubts may well remain about the role of value appropriation in the form of learning by the partners, and of the consequent stability of the alliance. It is often suggested in fact that the alliance is an inherently unstable and transitory arrangement, and undoubtedly, given opportunistic attitudes by the partners, it can be, particularly in alliances between erstwhile competitors.

The often cited comparison of an alliance with a marriage is pertinent here. Marriages could be regarded as unstable as they currently have a high failure rate. In fact they have many of the qualities of strategic alliances. The partners retain separate identities but collaborate over a whole range of activities. Stability is threatened if one partner becomes excessively dependent on the other, or if the benefits are perceived to be all one way. But none-the-less, successful marriages are stable, and for the same reason as successful alliances. They depend upon trust, commitment, mutual learning, flexibility, and a feeling by both partners that they are stronger together than apart. Many businesses point to the need to negotiate decisions in alliances as a weakness, in contrast to companies, where hierarchies make decisions. This is to confuse stability with clarity of decision-making, and would lead to the suggestion that dictatorships are more stable than democracies.

In this analogy, it is commitment to the belief that the alliance represents the best available arrangement that is the foundation of its stability. The need for resolution of the inevitable tensions in such an arrangement can as easily be presented as a strength, rather than as an inherent problem. It leads to the need to debate, see, and evaluate contrasting viewpoints. Similar points arise in relation to strategic net-works although to a lesser degree, since the closeness and interdependence of a network is typically lower than that of an alliance.

The movement of enterprises away from a simple wholly-owned corporate structure to more federated forms is accentuated by the growth of alliances, and strategic networks, which aid the development of global loyalties and cooperative endeavours, quite distinct from those

encouraged by the traditional national and firm boundaries.

Transaction costs is another body of theory applied to provide a rationale for the development of cooperative relationships, or hybrid organizations as they are called by TCA theorists. In transaction cost analysis organizational forms are conventionally described on a scale of increasing integration with markets at one end as the absolute of non-integration, to hierarchies or completely integrated companies at the other. It is suggested that the organizations that survive are those that involve the lowest costs to run in the particular circumstances in which they exist. Thus, integrated companies will be the lowest cost in situations when assets are very specific, markets are thin, and where conditions are highly complex and uncertain, opportunism is rife and assets are very specific, as it would be very difficult and therefore costly to handle transactions in a fragmented, marketplace way. At the

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other extreme, transactions are best carried out in markets where no one deal implies commitment to another, and relationships are completely at arm's length. This is most commonly the case when the product is a frequently traded commodity, assets are not specific, market pricing is needed for efficiency, there are many alternative sources of supply, and the costs of running a company would be very high.

Between the extremes of markets and integrated companies, there are a range of interorganizational forms of increasing levels of integration, which have evolved to deal with varying circumstances, and where they survive, may be assumed to do so as a result of their varying appropriateness to the situation. All forms between the extremes of markets and hierarchies exhibit some degree of cooperation in their activities. It is even likely that most hierarchies include internal markets within them in order to create situations where market pricing will improve efficiency, e.g. a Strategic Business Unit (SBU) may be empowered to use third party marketing advice if it is not satisfied with that available internally. Figure 21.5 illustrates forms of ascending interdependency all of which are cooperative except that of markets.

Hence, arm's length market relationships may develop into those with established suppliers and distributors, and then may integrate further into cooperative networks. Further up the ladder of integration come the hub-subcontractor net-works like Marks & Spencer's close interrelationships with its suppliers. Licensing agreements come next, in which the relationship between the licensor and the licensee is integrated from the viewpoint of activities in a defined area, but both retain their separate ownership and identities.

Between licensing agreements and completely integrated companies, where rule by price (markets) is replaced by rule by fiat (companies), comes the most integrated form of rule by cooperation, namely that found in strategic alliances.

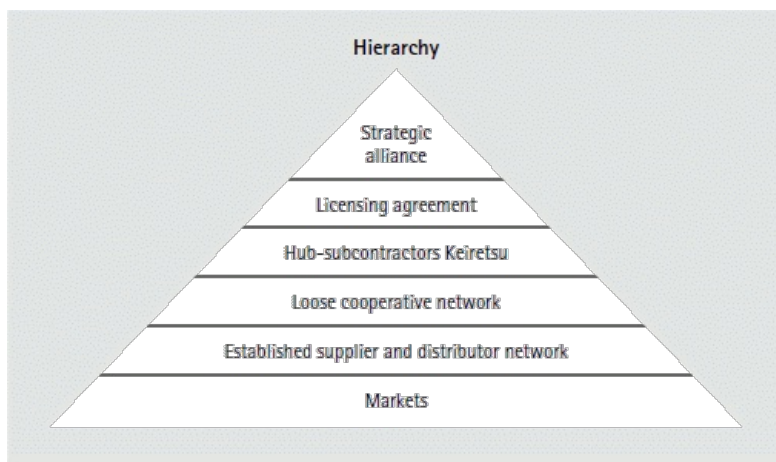


Fig. 21.5 Different forms of cooperation

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Alliances may be preferred organizational forms where sensitive market awareness is required, the price mechanism remains important, risks of information leakage are not considered unacceptably high, scale economies and finance risks are high, but where there is resource limitation, and flexibility is important.

21.3 The Motivation for Cooperation

The most common motivations behind the development of cooperation between companies as suggested by Porter and Fuller (1986) are:

- (1) to achieve with one's partner, economies of scale and of learning;
- (2) to get access to the benefits of the other firm's assets, be they technology, market access, capital, production capacity, products, or manpower;
- (3) to reduce risk by sharing it, notably in terms of capital requirements, but also often R²;
- (4) to help shape the market, e.g. to withdraw capacity in a mature market.

Another motive behind the conclusion of cooperative strategies is the need for speed in reaching the market. In the current economic world, first mover advantages are becoming increasingly important, and often the conclusion of an alliance between a technologically strong company with new products and a company with strong market access is the only way to take advantage of opportunities. There may also be opportunities through the medium of cooperation for the achievement of value chain synergies (Porter and Fuller 1986) which extend beyond the mere pooling of assets, and include such matters as process rationalization, and even systems improvement.

It is suggested that for cooperation to come about there needs to be at least one external force in play that challenges would-be players in the marketplace, and at least one internal perception of vulnerability or need in responding to that force. Such a response may well be to form a strategic alliance or network.

21.3.1 External Forces

There are a number of external forces that have stimulated the growth of strategic alliances and networks in recent years. Amongst the most important are the globalization of tastes and markets, the rapid spread and shortening life cycle of new technology and its products, the development of opportunities for achieving major economies of scale, scope, and learning, increasing turbulence in international

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economies, a heightened level of uncertainty in all aspects of life and declining international trade barriers.

Theodore Levitt (1960) was credited over forty years ago with first having drawn attention to the increasing homogenization of tastes, leading to the development of the 'global village'. Since that time the globalization movement has spread to an increasing number of industries, and as Kenichi Ohmae (1989) points out, it is now possible to travel from New York to Paris and on to Tokyo, and to see very similar articles on display in all three cities at least in some industries like electronics, computers, or automobiles.

After World War II, trade barriers between nations placed a limit to the development of a world economy. With the dramatic economic recovery of the major combatant nations, the move towards increasing international trade was stimulated by international agreements to reduce trade barriers, and thus increase overall economic welfare by allowing greater specialization on the basis of comparative costs and the development of global brand names as easily recognizable in Tokyo as in New York or London.

GATT (now the WTO), the EU, EFTA, and other trading agreements and common markets enabled national firms to develop opportunities internationally, and to grow into multinational corporations. More recently the 1992 EU legislation, the reunification of Germany, the establishment of NAFTA, and the break-up of the communist bloc have accelerated this movement, and in so doing stimulated the growth of strategic alliances between firms in different nations.

However, not only are markets rapidly becoming global, the most modern technologies, namely microelectronics, genetic engineering, and advanced material sciences are, by now, all subject to truly global competition. The global technologies involved in the communications revolution have also succeeded in effect in shrinking the world, and led to the design and manufacture of products with global appeal, due to their pricing, reliability, and technical qualities. But, not only is technology becoming global in nature, it is also changing faster than previously, which means a single firm needs correspondingly greater resources to be capable of replacing the old technology with the new on a regular basis.

The globalization of markets and technologies leads to the need to be able to produce at a sufficiently large volume to realize the maximum economies of scale and scope, and thus compete globally on a unit cost basis. Although one effect of the new technologies is, through flexible manufacturing systems, to be able to produce small lots economically, the importance of scale and scope economies is still critical to global economic competitiveness in a wide range of industries. Alliances are often the only way to achieve such a large scale of operation to generate these economies. The advantages of alliances and networks over integrated firms are in the areas of specialization, entrepreneurship, and flexibility of arrangements, and these characteristics are particularly appropriate to meet the needs of today's turbulent and changing environment.

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The oil crises of 1973 and 1978, the Middle East wars, and the subsequent aggravated economic cycles of boom and recession, coupled

with ever-shortening product life cycles, have made economic forecasting as hazardous as long-term weather forecasting. Strategic vulnerability due to environmental uncertainty has become a fact of life in most industries. Cooperative strategy helps to reduce that vulnerability, by enabling 'cooperative enterprises' to grow or decline flexibly, to match the increasing variability of the market situation.

21.3.2 Internal Conditions

A range of external conditions and challenging situations may stimulate the creation of strategic alliances and networks. However, firms will only enter into such arrangements when their internal circumstances make this seem to be the right move. These internal circumstances have most commonly included a feeling of resource and competence inadequacy, in that cooperative activity would give a firm access to valuable markets, technologies, special skills, or raw materials in which it feels itself to be deficient, and which it could not easily get in any other way.

In conditions of economic turbulence and high uncertainty, access to the necessary resources for many firms become a risk, which raises the spectre of potential strategic vulnerability for even the most efficient firm. This leads to the need to reduce that uncertainty, and secure a more reliable access to the necessary resources, whether they be supplies, skills, or markets. Strategic alliances or a developed network with firms able to supply the resources may then develop where previously market relationships may have dominated.

For cooperation to be appropriate, both partners must be able to provide some resource or competence the other needs, or reach a critical mass together that they each do not reach alone. If the needs are not reciprocal, then the best course of action is for the partner in need to buy the competence or resource, or, if appropriate, buy the company possessing it. Cooperative arrangements require the satisfaction of complementary needs on the part of both partners, and thereby lead to competitive advantage.

There are many forms of resource dependency that provide the internal motivation for cooperation:

1. *Access to markets* is a common form. One firm has a successful product in its home market, but lacks the sales force, and perhaps the local knowledge to gain access to other markets. The alliance between Cincinnati Bell Information Systems of the United States and Kingston Communications of Hull in England was set up from CBIS's viewpoint in order to gain market access into the European Community, with the purpose of selling its automated telecommunications equipment. The

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market motivator is also a strong one in the current state of Eastern Europe and former USSR alliances with Western firms.

2. *New technology* is another form of resource need. Thus, in forming Cereal Partners to fight Kellogg's domination of the breakfast cereals market, Nestlé has joined forces with General Mills principally to gain access to its breakfast cereals technology.
3. *Access to special skills* is a form of resource need similar to access to technology. The special skills or competences may be of many types, and include the know-how associated with experience in a particular product area.
4. *Access to raw materials* is a further form. Thus, for example, Monarch Resources has allied with Cyprus Minerals to gain access to Venezuelan gold mines. Although this motivation was a very common one in past decades when the developed nations sought allies in less developed areas, it is currently less common.

Other internal circumstances that have stimulated the search for alliances have included the belief that running an alliance would be less costly than running and financing an integrated company, or the belief that an alliance, or a series of alliances, would provide strong protection against takeover predators. Others may be that firms believe it is the best way to limit risk, or to achieve a desired market position faster than by any other way. Transaction cost theory encompasses these motivations within its orbit. However, accurate calculation of the costs involved in various organizational forms is very difficult to compute, since it involves assigning costs to some unquantifiable factors, e.g. opportunism or information asymmetry. The lowest cost concept is still valuable in determining whether a particular activity is best carried out by internal means, by purchasing it in the market, or by collaboration with a partner. Where the transaction cost perspective is taken as the justification for the development of the alliance, this suggests the priority is to improve the firm's cost and efficiency rather than quality position.

Alliances are also frequently formed as a result of the need to limit risk. The nature of the risk may be its sheer size in terms of financial resources. Thus, a £100 million project shared between three alliance partners is a much lower risk for each partner than the same project shouldered alone. The risk may also be portfolio risk. Thus, £100 million invested in alliances in four countries probably represents a lower risk than the same figure invested alone in one project. The trade-off is between higher control and lower risk. An acquisition represents a high level of control but is expensive, and however well the acquirer may have researched the target company before purchase, it may still receive some unexpected surprises after the conclusion of the deal. A strategic alliance involves shared risk, is probably easier to unravel if it proves disappointing, and enables the partners to get to know each other slowly as their relationship develops.

The need to achieve speed is a further internal reason for alliance formation. Many objectives in the business world of the 1990s can only be achieved if the firm

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acts quickly. In many industries there is a need for almost instantaneous product launches in the retail markets of London, Tokyo, and New York if opportunities which may not last forever are not to be missed. This suggests the need for alliances, which can be activated rapidly to take advantage of such opportunities.

Alliances and networks are not all formed with expansionary aims in mind, however. Many are the result of fear of being taken over. Thus, in the European insurance world, AXA and Groupe Midi of France formed an alliance and eventually merged to avoid being taken over by Generali of Italy. General Electric of the United Kingdom has formed an alliance with the its namesake in the United States for similar defensive reasons.

21.4 Strategic Alliances

A strategic alliance has been defined as: 'a particular mode of inter-organisational relationship in which the partners make substantial investments in developing a long-term collaborative effort, and common orientation' (Mattsson 1988). This definition excludes projects between companies that have a beginning and preordained end, and loose cooperative arrangements without long-term commitment. In establishing the 'collaborative effort and common orientation', the alliance partners forsake a competitive strategy in relation to each other in agreed areas of activity and embark on a cooperative one.

21.4.1 Types of Alliance

Alliances can be classified along three dimensions that define their nature, form, and membership:

1 Nature	Focused	Complex
2 Form	Joint venture	Collaboration
3 Membership	Two partners only	Consortium

Figure 21.6 illustrates the options available from which a choice may be made.

21.4.1.1 Focused Alliances

The focused alliance is an arrangement between two or more companies, set up to meet a clearly defined set of circumstances in a particular way. It normally involves only one major activity or function for each partner, or at least is clearly defined and

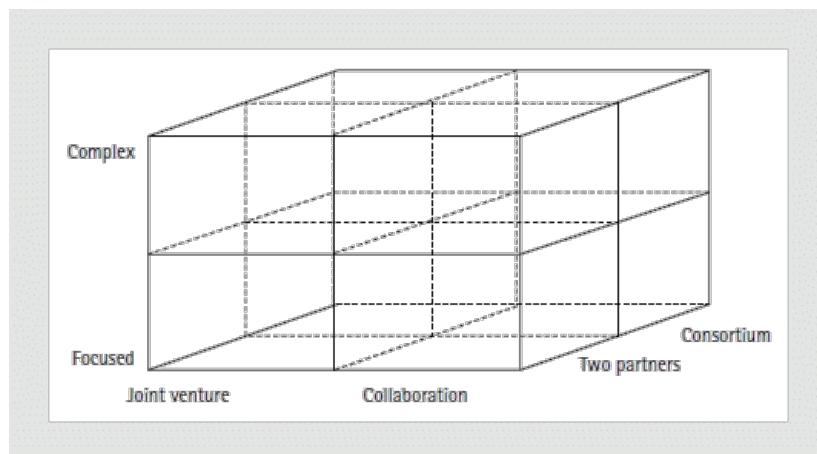


Fig. 21.6 Strategic alliance forms

end p.624

limited in its objectives. Thus, for example, a US company seeking to enter the EU market with a given set of products may form an alliance with a European distribution company as its means of market entry. The US company provides the product, and probably some market and sales literature, and the European company provides the sales force and local know-how. The precise form of arrangement may vary widely, but the nature of the alliance is a focused one with clear remits, and understandings of respective contributions and rewards.

21.4.1.2 Complex Alliances

Complex alliances may involve the complete activity cost chains of the partners. The companies recognize that together they are capable of forming a far more powerful competitive enterprise than they do apart. Yet they wish to retain their separate identities and overall aspirations, whilst being willing to cooperate with each other over a wide range of activities. The alliance between the Royal Bank of Scotland and Banco Santander of Spain is a good example of a complex alliance. It includes exchange of banking facilities in the respective host countries, partnership in an electronic European foreign funds transfer conglomerate, and joint participation in a number of third country joint ventures. It remains separate, however, in the critical marketing and sales areas in the partners' respective home countries, and both companies retain clearly distinct images.

21.4.1.3 Joint Ventures

Joint ventures involve the creation of a legally separate company from that of the partners. The new company normally starts life with the partners as its

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shareholders, and with an agreed set of objectives in a specific area of activity. Thus, a US company may set up a joint venture with a UK company to market in the EU. The partners provide finance and other support competences and resources for the joint venture in agreed amounts. The aim of the joint venture is normally that the new company should ultimately become a self-standing entity with its own employees and strategic aims, quite distinct from those of its parent shareholders. Unilever is a good example of a joint venture set up by a Dutch and an English company in the 1920s, and which has grown into a major multinational enterprise. Joint ventures usually involve non-core activities of the partners, and are characterized by having clear boundaries, specific assets, personnel, and managerial responsibilities. They are not generally set up in such a way that their products compete directly with those of the founding partners. Ultimately, they are divestable by the partners in a way that the non-joint venture form is not. They are the most popular form of alliance, being responsible for about half of all alliances created in the samples of several alliance researchers.

21.4.1.4 Collaborations

The collaborative alliance form is employed when partners do not wish to set up a separate joint venture company to provide boundaries to their relationship. This might be because they do not know at the outset where such boundaries should lie. Hence, the more flexible collaborative form meets their needs better. Collaborative alliances are also preferred when the partners' core business is the area of the alliances, and therefore assets cannot be separated from the core business and allocated to a dedicated joint venture. The collaborative form can be expanded or contracted to meet the partners' needs far more easily than can a joint venture. Royal Bank/Banco Santander is a classical example of the collaboration form of alliance.

21.4.1.5 The Consortium

The consortium is a distinct form of strategic alliance, in that it has a number of partners, and is normally a very large-scale activity set up for a very specific purpose, and usually managed in a hands-off fashion from the contributing share-holders. Consortia are particularly common for large-scale projects in the defence or aerospace industries where massive funds and a wide range of specialist competences are required for success. Airbus Industrie is a consortium where a number of European shareholders have set up an aircraft manufacturing company to compete in world markets with Boeing/McDonnell Douglas. The European shareholders, although large themselves, felt the need to create a large enough pool of funds to ensure they reached critical mass in terms of resources for aircraft development, and chose to form an international consortium to do this. A consortium may or may not have a legally distinct corporate form. Airbus Industrie originally did not have one, but is now restructuring itself to have one.

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There are then eight possible basic configurations of alliance covering the alliance's nature, its form, and the number of partners it has, e.g. focused/two partner/joint venture, complex/consortium/collaboration, and so forth. The alliance type that involves setting up a joint venture company is currently by far the most popular method. There are also well trodden paths by which alliances evolve. For example, focused alliances that are successful frequently develop into complex alliances, as the partners find other areas for mutual cooperation. Two partner alliances often recruit further partners, and develop into consortia, as the scale and complexity of opportunities become apparent. Alliances, initially without joint venture companies, frequently form them subsequently, as they experience difficulty in operating in a partially merged fashion, but without clear boundaries between the cooperative and the independent parts. It is also quite common for

one partner in a joint venture to buy out the other. This need not mean the alliance was a failure. It may have been a considerable success, but the strategic objectives of the two companies may have moved onto different paths.

Other paths of evolution, however, are probably less likely to be followed. Consortia are unlikely to reduce to two partner alliances. Alliances with joint venture companies are unlikely to revert to a non-joint venture situation, but to keep the alliance in being. Thirdly, complex alliances are unlikely to revert to a simple focused relationship between the partners.

It is not possible to predict definitively which form of alliance will be adopted in which specific set of circumstances, since certain companies show policy preferences for certain forms rather than others, irrespective of their appropriateness. However, most alliances fall into three types:

- (1) two partner joint ventures;
- (2) two partner collaborations;
- (3) consortium joint ventures.

Firms seeking strategic alliances generally choose between these three forms, before moving on to define their relationships in a more specific way.

21.4.2 Selecting a Partner

The creation of a strategic alliance does not of course guarantee its long-term survival. Research by the consultancy firms McKinsey and Coopers & Lybrand (now PricewaterhouseCoopers) has shown that there is no better than a 50 per cent survival probability for alliances over a five-year term. This conclusion is, however, put in perspective when considered against Porter's (1987) research into the success of acquisitions, which concluded that the success rate of acquisitions is even lower. Undoubtedly the 50 per cent failure rate of alliances could be considerably reduced, if firms learned the managerial skills necessary to develop and

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maintain successful cooperative relationships, an aspect of management theory given only limited emphasis at business schools.

One of the keys to a successful alliance must be to choose the right partner. This requires the consideration of three basic factors:

- (1) the synergy or strategic fit between the partners;
- (2) the cultural fit between them; and
- (3) the existence of only limited competition between the partners.

The importance of strategic fit and cultural fit can be illustrated in Figure 21.7 below.

21.4.2.1 Strategic Fit

A high degree of strategic fit is essential to justify the alliance in the first place. Strategic fit implies that the core competences of the two companies are highly complementary. Whatever partner is sought, it must be one with complementary assets, i.e. to supply some of the resources or competences needed to achieve the alliance objectives. These complementary needs may come about in a number of circumstances:

1. *Reciprocity*. Where the assets of the two partners have a reciprocal strength, i.e. there are synergies such that a newly configured joint value chain leads to greater power than the two companies could hope to exercise separately.

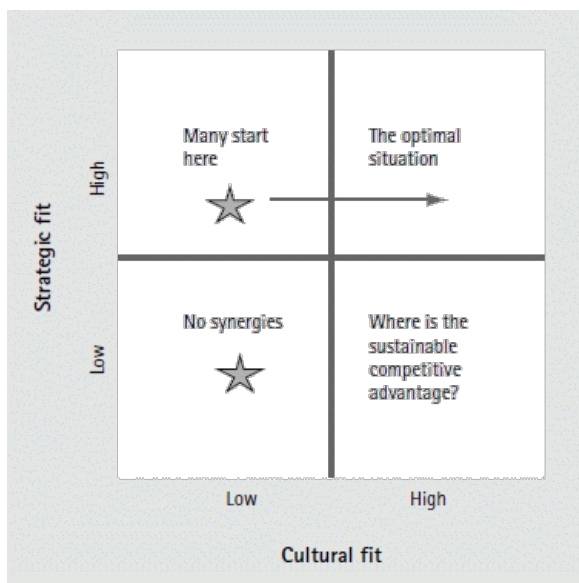


Fig. 21.7 The best alliances should aim for both strategic and cultural fit

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2. *Efficiency*. Where an alliance leads to lower joint costs over an important range of areas: scale, scope, transaction, procurement, and so forth, then, this provides a powerful stimulus to alliance formation.
3. *Reputation*. Alliances are set up to create a more prestigious enterprise with a higher profile in the marketplace, enhanced image, prestige, and reputation.
4. *Legal requirements*. In many developing countries it is legally required that international companies take a local partner before being granted permission to trade.

Strategic fit, of some form or another, is normally the fundamental reason that the alliance has been set up in the first place. It is important both that it is clearly there at the outset, and that it continues to exist for the lifetime of the alliance. Strategic fit implies that the alliance has or is capable of developing a clearly identifiable source of sustainable competitive advantage. Garrette and Dussauge (1995) classify strategic fit into two forms of alliance, scale (where two competitors come together to achieve scale economies) and link (where two companies at different points in the value chain link up to reduce transaction costs). Clearly the tensions and risks of cooperation alliances will generally be greater in scale than in link alliances. Whatever partner is sought, it must be one with complementary assets, i.e. to supply some of the resources or competences needed to achieve the alliance objectives. Cooperative arrangements require the satisfaction of complementary needs on the part of both partners, leading to competitive advantage.

21.4.2.2 Cultural Fit

However, for the alliance to endure, cultural adaptation must take place, leading the most successful alliances to graduate to the top right-hand box of Figure 21.7. Cultural fit is an expression more difficult to define than strategic fit. In the sense used here, it covers the following factors: the partners have cultural sensitivities sufficiently acute and flexible to be able to work effectively together, and to learn from each other's cultural differences. The partners are balanced in the sense of being of roughly equivalent size, strength, and consciousness of need. One is not therefore likely to attempt to dominate the other. Also, their attitudes to risk and to ethical considerations are compatible.

Cultural difficulties are very frequently cited as the reason for the failure of an alliance, but the question of compatible cultures is rarely explicitly addressed when an alliance is being set up. Additionally clearly different cultures (e.g. UK/Japan) often make for better alliances than superficially similar ones (e.g. UK/US). Indeed in support of this point, research has shown that an ethnically Chinese American national has a far more difficult task running a US/Chinese joint venture in China than an explicitly Caucasian American. Less tolerance is accorded to the ethnically Chinese American for cultural lapses in China.

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21.4.2.3 Limited Competition

It is also important that the partners are not too competitive, cf. Figure 21.8.

Alliances in the top left-hand box should be relatively stable, since their areas of cooperation are far stronger than those of competition. Alliances in the bottom left do not have strategic fit and are likely to dissolve over time. The top right-hand box alliances may be very dynamic, and significant mutual learning may take place. However, the high level of potential competition between the partners renders them ultimately unstable, and they are likely to have a future of either complete merger or break-up to reduce this competitive tension. Partners in the bottom right-hand box have strong competitive characteristics and only weak cooperative ones. Such a situation is likely to lead to the appropriation of key skills by one partner or the other. It is generally fairly simple to analyse the situation at the outset of an alliance, and avoid the dangerous bottom right-hand box. However, situations change with time and alliances can slip unnoticed into this box after starting out in the more healthy top-level boxes. Such changes need to be guarded against by constant monitoring of the situation.

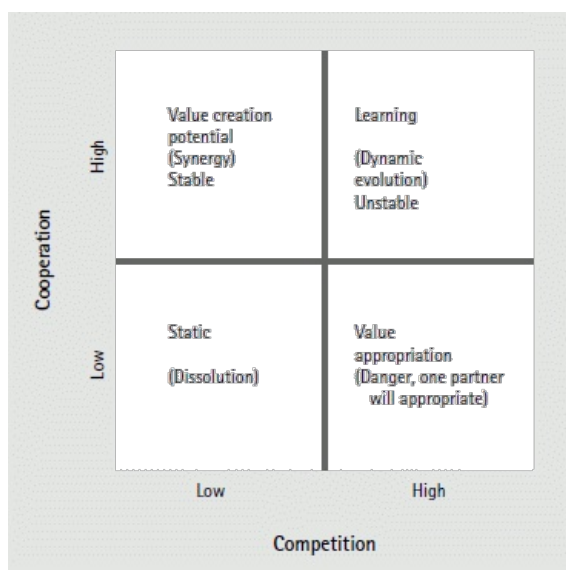


Fig. 21.8 Almost all alliances involve both cooperation and competition

end p.630

21.4.3 The Management of Alliances

The management of an alliance consists of two primary factors:

- (1) the systems, mechanisms, and organization structure chosen to operate the alliance;
- (2) the attitudes of the partners towards each other.

Much the same concerns apply to a network, but in a rather looser way. Although the mechanisms chosen will obviously vary widely according to the cooperative form chosen, the attitudes necessary for success are similar in all forms. The relationship of the partners, as in a marriage, is a key to the success of the arrangement. It may not be a sufficient factor by itself, since the successful alliance needs positive quantifiable results, but it is certainly a necessary condition. An appropriate attitude has two major components: commitment and trust.

Lack of commitment can kill an alliance in a very short time. Alliances have failed because the partners have not allocated their best people to the project, have placed it low on the priority agenda, or have set up too many relationships, in the hope that at least some would succeed. These attitudes have the seeds of failure within them.

Trust is the second key factor for survival. Unless this develops early on in the partnership, the alliance soon ceases to be the best organizational arrangement for the partners, as they spend increasing amounts of time and resources monitoring each other's activities as a result of their mutual lack of trust. Trust may be classified in three forms.

1. Calculative trust, which exists at the outset of a relationship because the partners perceive that it is in their self-interest to set up the relationship, and to do so they must accord their partner some measure of trust.
2. Predictive trust develops as the partners discover by working together that each is as good as their word, and their actions may therefore be accurately predicted to be as they commit to them.
3. Bonding trust or a warm human relationship may then develop over time, but does not necessarily do so in all business relationships. If

it does, however, it is the best guarantor of a successful relationship.

Trust does not imply naive revelation of company secrets not covered by the alliance agreement. It implies the belief that the partner will act with integrity, and will carry out its commitments. The appropriate attitude must be set from the start. During the negotiation stage, friendliness should be exhibited, and a deal struck that is clearly 'win-win'; qualities quite different from those that often characterize take-over negotiations.

Cultural sensitivity can also be the key to alliance success as mentioned earlier in the section on selecting a partner. Many alliances have failed purely as a result of cultural incompatibility. Cultural compatibility does not necessarily imply the existence of similar cultures. Indeed, partners have more to learn from differences

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than from similarities. It does however require a willingness to display cultural sensitivity, and to accept that there is often more than one acceptable way of doing things. A comparison of the partners' cultural profiles will often highlight possible areas of future cultural discord.

Goal compatibility is vital to the long-term success of a partnership. Of course, the specific goals of the alliance will evolve over time. However, if the goals of the partners at a basic level fundamentally clash, the alliance cannot but be a short-term opportunistic affair. Compatibility does not necessarily mean the partners' goals must be identical. There is no fundamental incompatibility in having different sets of goals so long as they do not conflict, as did those of Courtaulds Coatings and Nippon Paint when both conceived of the ambition to be the world number one in marine paints.

The mechanisms for running a joint venture are quite distinct from those of a collaboration. A joint venture, whether two partner or consortium, involves the creation of a separate company to those of the partners. There are therefore two types of relationship to cope with, i.e. the relationship between the partners, and the relationship between each partner and the joint venture company. The most appropriate systems for running a joint venture are also the simplest. The venture should be set up with sufficient resources, guaranteed assistance by the partners whilst it is young, and allowed to get on with the job of realizing its objectives and targets. Involvement by the partners should be limited to board level, except at the request of the venture company. A chief executive should be appointed and given sufficient autonomy to build the joint venture company. Although this seems common sense, it is surprising how many joint ventures falter or fail through the unwillingness of the partners to give them sufficient autonomy and assets, and to realize that the venture will inevitably not have fully congruent objectives with those of the partners. Joint venture companies inevitably develop cultures, lives, and objectives of their own, and owner partners frequently find this fact difficult to adjust to. The now retired managing director of the EVC joint venture between ICI and Enichem is on record as claiming that both partners expected him to pursue their interests rather than those of the joint venture company he was employed to run, and both accused him of being biased in favour of the interests of their partner.

The relationship between the partners is different in nature between partners in collaborations. Here the 'boundary spanning' mechanism is the area crucial for success. The interface between the companies is the area where culture clashes, or conflict of objectives, will probably show themselves first. The establishment of a 'gateway' executive or office, as a channel for all contacts between the partners at least during the settling down period of the alliance, is a good way to avoid unnecessary misunderstandings.

In all circumstances, a good dispute resolution mechanism should be established before the alliance begins to operate. If this is left to be worked out as necessary, there is a high risk that its absence will lead to a souring of the relationship between the partners at the ultra-sensitive early stage of the partnership.

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An effective system for disseminating alliance information widely within the partner companies is a further important factor for ensuring that both or all partners gain in learning to the greatest degree possible from the cooperative arrangement.

Finally procedure for divorce should be considered at the outset of an alliance in the event of a wish by either party to end the alliance, since this will increase the feeling of security by both parties that an end to the alliance does not represent a potential catastrophe.

21.4.4 Alliance Evolution

Bleeke and Ernst in a 1995 article in the *Harvard Business Review* claim that there are six possible outcomes to alliances including the dissolution of the alliances and the swallowing of one partner by the other. Only one solution of these was that the alliance continue successfully largely unchanged over an indefinite time period, and it is certainly true to say that two firms running an enterprise may well lead to an ultimate outcome of the simpler 'one firm running it' type. However this is not necessarily the case.

One key factor in the life of an alliance seems to be that, if it ceases to evolve, it starts to decay. The reality of a successful alliance is that it not only trades competences but also demonstrates synergies. Whereas the resource dependency perspective identifies a key part

of a company's motivation for forming an alliance, the successful evolution of that alliance depends upon the realization of synergies between the companies, and the establishment of a level competitive advantage for the partners, that each could not as easily realize alone. Important conditions for evolution include:

- (1) perception of balanced benefits from the alliance by both partners;
- (2) the development of strong bonding factors;
- (3) the regular development of new projects between the partners; and
- (4) the adoption of a philosophy of constant learning by the partners.

21.5 Strategic Networks

Strategic networks differ from alliances in that they generally involve a lower level of interdependence between the members, and the learning factor is rarely so important. Members provide their own skills, and leave other members to provide theirs. Table 21.1 illustrates the differences between different organizational forms on a number of dimensions.

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21.5.1 The Nature of Strategic Networks

There is then a clear distinction between the idea of a network with its implication of close but non-exclusive relationships, and that of an alliance which, however loosely, implies the creation of a joint enterprise at least over a limited domain. The term 'network' is in fact often very loosely used to describe any relationship from an executive's 'black book' of useful contacts to an integrated company organized on internal market lines (cf. Snow, Miles, and Coleman 1992). Johanson and Mattsson (1991) make a useful additional distinction between network theory and the form of strategic alliance theory that is based upon transaction cost analysis. Alliances may be concluded for transaction cost reasons, but networks never are, they believe.

Networks, like alliances, generally exist for reasons stemming from resource dependency theory, i.e. one network member provides one function which is complementary to and synergistic with the differing contribution of other members of the network, and provides other members with privileged access. Although costs enter into the calculus of who to admit and persevere with as network members, the existence of the network and the loose bonding implied by it, emphasizes autonomy and choice, in contrast to the more deterministic governance structure and stable static equilibrium applied to alliance theory by transaction cost theorists.

Table 21.1 Differences between different organizational forms

Key features	Hierarchy	Alliance	Network	Market
Normative basis	Employment	Secondment	Complementary strengths	Contract
Communication	Routines	Relational	Relational	Prices
Conflict resolution	Fiat Supervision	Reciprocity and reputation	Reciprocity and reputation	Haggling and the law
Flexibility	Low	Medium	High	High
Commitment	High	High	Medium	Nil
Tone	Formal Bureaucratic	Committed Mutual benefit	Open ended Mutual benefit	Precision Suspicion
Actor preference	Dependent	Interdependent	Interdependent	Independent
Mixing of forms	Informal Organization Profit centres	Equality Flexible rules	Status Hierarchy Multiple partners	Repeat Transactions Contracts
	Transfer pricing	Recent systems	Formal rules	

Source: Adapted from Powell (1990).

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We think the relationships among firms in networks are stable and can basically play the same coordinating and development function as intra-organizational relations. Through relations with customers, distributors, and suppliers a firm can reach out to quite an extensive network. Such indirect relationships maybe very important. They are not handled within the transaction cost approach. (Johanson and Mattsson 1991)

Networks of whatever type arise for a number of distinct reasons:

1. To reduce uncertainty. Indeed this motive has been suggested as the prime reason for the development of all institutions. Impersonal relationships in markets are fraught with uncertainty, in that a transaction once made can never be assumed to be repeatable, since it implies no more in relationship terms than is contained in the exchange. Networks imply developing relationships and thus promise more in terms of mutual solidarity against the cruel wind of economic dynamics.
2. To provide flexibility. This quality is offered not in contrast to markets but to hierarchies. Vertically integrated companies establish overheads and production capacity, and in doing so forsake the flexibility of immediate resource reallocation that networks provide.

3. To provide capacity. A firm has certain performance capacities as a result of its configuration. If it is part of a customary network however, such capacity can be considerably extended by involving other network members in the capacity constrained activity.
4. To provide speed to take advantage of opportunities that might not exist for long and may require a fast response. The classical 'window of opportunity' which is open for a short period and then shut forever. An existing network can put together a package of resources and capacities to meet such challenges in a customized response which, in its flexibility and scope, lies beyond the capacity of an unnetworked vertically integrated firm.
5. To provide access to resources and skills not owned by the company itself. Thus, in a network like those found in the clothing industry of Northern Italy (Lorenzoni and Ormati 1988), the strength of one company is a reflection of the strength of its position in its network, and the facility with which it can call on abilities and skills it does not possess itself to carry out tasks necessary to complete a project.
6. To provide information. Network members gain access to industrial intelligence and information of a diverse nature with far greater facility than executives imprisoned in a vertically integrated company. In such firms the 'need to know' principle is far more likely to operate than in networks where all members regard information gathering as one of the principal reasons for establishing themselves in networks. Even in companies that recognize the importance of making their knowledge and experience available to all their members, often by appointing Chief Knowledge Officers as did Coopers and Lybrand, the breadth of knowledge may still be more limited than that embedded in a wide network.

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21.5.2 Power and Trust in Strategic Networks

If price is the key regulator and dominant factor in markets, and legitimacy in hierarchies, then power and trust are the factors that dominate network relationships as well as the more formal alliances. They are the dominant factors in any political economy, and networks have many of the qualities of such institutional forms. 'The inter-organizational network may be conceived as a political economy concerned with the distribution of two scarce resources, money and authority' (Benson 1975, cited in Thorelli 1986). To embark on cooperative activity, the domains of companies, i.e. their products, markets, mode of operation, and territories overlap, need to contact each other and perceive the benefit of working together. Until a certain critical mass has been achieved in the level of co-operation and exchange transactions, the alliance or network does not merit the name.

Thorelli (1986) identifies five sources of network power for a member: its economic base, technologies, and range of expertise, coupled with the level of trust and legitimacy that it evokes from its fellow members. It needs to be differentially advantaged in at least one of these areas. All network members, although formally regarded as equals by virtue of their membership, will not have the same degree of power, and it is the linkages between the members, and their respective power over each other in causing outcomes, that determine the culture of the network.

Although networks accord membership to firms, they are not static closed bodies. Entry, exit, and repositioning is constantly going on in networks occasioned by a particular firm member's success or failure and the strength of demand or otherwise for the contribution other member firms believe it can make to their proposed projects. The ultimate justification for the cost to a firm of maintaining its position in a network is the belief that such network activity strengthens its competitive position in comparison to operating on a purely market-based philosophy.

Even networks themselves, however, wax and wane in power. As Thorelli puts it, 'In the absence of conscious coordinative management —ie network management, networks would tend to disintegrate under the impact of entropy.' Networks depend on the establishment, maintenance, and perhaps strengthening of relationships in the hope of profits in the future. In this sense they are different from markets which exist to establish profit today. It is therefore the perceived quality of relationships in networks that matters, since quantitative measures cannot easily be applied to them.

Parts of networks are often appropriable by individuals in a way that technologies and production capacities are not, partly because only the calculative trust stage has been achieved. To that extent, although a firm may join a network to reduce its vulnerability, it may end up replacing one form of vulnerability for another. The successful corporate finance directors of merchant banks in the City of London

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depend almost entirely on their networks and are eternally at risk of being bid away to other institutions through a large enough offer. The network, as opposed to other intra-organizational forms, brings with it its own strengths and vulnerabilities. In a turbulent and global economic world however, few players can risk being entirely without networks, or conversely being entirely dependent upon them.

Richardson (1972) sees firms as 'islands of planned coordination in a sea of market relations'. But as Powell (1990) stresses, the sea is by no means clear, and this description of the alternative methods of exchange in economies is of doubtful use. Strong relationships and dense commercial networks have always existed wherever economic exchange occurs, sufficient to make the metaphorical antithesis of

solid land and fluid sea an unrealistic one. It would be extreme, however, to blur the distinctions between markets, networks, and hierarchies such that they are rejected as useful categories. At the very least their underlying philosophies differ in essence. In markets the rule is to drive a hard bargain, in networks to create indebtedness for future benefit, and in hierarchies to cooperate for career advancement. As Powell (1990) notes:

Prosperous market traders would be viewed as petty and untrustworthy shysters in net works, while successful participants in networks who carried those practices into competitive markets would be viewed as naive and foolish. Within hierarchies, communication and exchange are shaped by concerns with career mobility—in this sense, exchange is bound up with considerations of personal advancement.

Powell believes that networks score over other governance forms particularly where flexibility and fast response times are needed, 'thick' information is needed, and varied resources are required due to an uncertain environment. He also points out that the social cement of networks is strengthened by obligations which are frequently left unbalanced, thus looking to the future for further exchanges. This differs from other governance forms where the pursuit of exchange equivalence in reciprocity is the norm.

Although trust and its general antecedent 'reputation' are necessary in all exchange relationships, they are at their most vital in network forms. It is true that you need to trust your colleagues in a hierarchy, and you need to trust the trader who sells you a product in a market, at least to the extent of believing that the good is of the declared quality. But in these circumstances tacit behavioural caution and legal remedies can to some degree compensate for doubtful trust in hierarchies and markets, respectively. However, without trust, and a member's reputation on admission to a network, such a mode of cooperation would soon wither, probably into a market form.

Jarillo (1993) looks at a network as more than a rather randomly determined set of business relationships created because its members felt uncertain of the future, and believed that knowing particular differentiated trading partners well, provides a stronger capability than the flexibility that comes with having only market relationships or the costs involved in vertical integration. In Jarillo's view strategic

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networks are merely another, and often better way of running the 'business system' necessary for the production and sale of a chosen set of products. By business system he means the stages and activities necessary for designing, sourcing, producing, marketing, distributing, and servicing a product; a form of analysis similar to Porter's (1985) value chain.

From this perspective Jarillo's strategic network requires a hub company to provide scope definition and leadership. It decides if it will carry out a particular activity internally or through network subcontractors. His examples of such a network system are Toyota and Benetton. Conditions that make such a system the preferred solution to vertical integration are, in Jarillo's view:

- (1) widely varying optimal scale for different activities in the business system; some activities benefiting from small-scale providers;
- (2) varying optimal cultures for the most efficient production of particular activities;
- (3) business systems in which innovation most commonly comes from small entrepreneurial companies; and
- (4) widely varying expected rates of profitability from different business system activities, as a consequence of their positioning in different industry structures as analysed by a five forces method (Porter 1980).

Jarillo bases his theory of the growth of strategic networks largely on the observation of the current trend towards company downsizing, a major component of which is the replacement of internal non-core functions by subcontracted providers, thereby contracting the size of the core salaried workforce. Frequently, the company contracted to carry out the outsourced activities is a newly formed management buy-out from the previously vertically integrated company. Greater motivation is instilled in the subcontractor at a stroke, better services are provided, greater flexibility is achieved by the hub company, and the size of the company's required capital base is accordingly reduced. There are in theory gains all round, although the motivation of those removed from the parent company may often be damaged, and the feeling of security of those remaining may be compromised.

21.5.3 Types of Strategic Network

Davis, Diekmann, and Tinsley (1994) confirm this movement in their description of the decline and fall of the conglomerate firm in the United States in the 1980s. The authors talk of the firm as an institution being increasingly replaced by a reductionist view of the firm as a network without boundaries. They describe firms of the future as no more than: 'dense patches in networks of relations among economic free agents'. This modern construct is developed further by Snow, Miles, and Coleman (1992) who also claim that the modern firm is becoming: 'a new form of

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organization—delayed, downsized, and operating through a network of market sensitive business units—[which] is changing the global business terrain.'

This is clearly Jarillo's strategic network in another guise, although Snow et al. go further. They identify three distinct types of network:

1. *The internal network*. This is a curious identification as a network, since it is described as the introduction of the market into the internal organization of the firm. Thus, activities are carried out within the firm and then 'sold' to the next stage of the value chain at market prices, with the purchaser having the right to buy externally, if he can get a better deal. The activity may also in turn develop third party clients external to the firm.
2. *The stable network*. This is the firm employing partial outsourcing to increase flexibility and improve performance, with a smaller base of permanent employees. It is similar to the Japanese keiretsu in Western form.
3. *Dynamic networks*. These are composed of lead firms who identify new opportunities and then assemble a network of complementary firms with the assets and capabilities to provide the business system to meet the identified market need. Dynamic networks are sometimes otherwise described as Hollow Corporations (*Business Week*, 3 Mar. 1986), since the entrepreneur lacks the capacity to carry out the range of necessary activities from its own resources.

Snow et al. take the network concept further by observing that the change in organizational form leads inevitably to a change in the required qualities of executives. In markets traders need above all to be quick-witted, streetwise, and able to negotiate effectively. In hierarchies executives need a range of personal attributes including leadership qualities, administrative abilities, and diplomatic capacity. An autocratic style although not fashionable is not necessarily an inhibitor to success in many company cultures. In setting up and running networks, however, such a style would almost inevitably lead to the failure of the network or at least to the executive's replacement.

Snow et al. identify the broker as the ideal network executive, and they specify three distinct broker roles:

1. *The architect*. He is the creator of the network or at least of the project in which appropriate firms in an existing network are to be asked to play a part. The architect is the entrepreneur, and dependent upon his creativity and motivational abilities he may be instrumental in providing the inspirational vision that brings a network into being, in introducing new members to it, or merely in resourcing a project from existing network members.
2. *The lead operator*. This broker role is often carried out by a member of a downstream firm in the network, according to Snow et al. He is the manager rather than the entrepreneur, and provides the brain and central nervous system that the network needs if it is to function effectively on a defined mission. As the name suggests, he needs to provide leadership, but in a more democratic style than would

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be necessary in a hierarchy, as the members of the team in which he needs to operate are not his employees.

3. *The caretaker*. This role prevents Thorelli's (1986) famous 'entropy' risk being realized. The caretaker will need to monitor a large number of relationships. He will need to nurture, to enhance, and even to discipline network members if they fail to deliver their required contribution. Snow and Thomas (1993) conducted some qualitative research into the validity of these broker roles in networks and found them to be broadly valid. There is no doubt, however, that the network with a strong hub firm at the centre is very different in nature and character to that which is set up amongst firms with greater claims to mutual equality. Even equal partner firms will inevitably be differentiated in terms of their actual power though, and such power relationships will themselves almost inevitably change over the lifetime of the network's operation.

It is difficult to position networks on the cooperative strategy spectrum of ascending interdependence, since some networks exhibit firm-like qualities like the Japanese keiretsu, whilst others are little more than media for the fast transmission of informal industry information. However, the problem becomes easier to solve, if networks are classified into two distinct categories, i.e. the dominated network, where one firm maintains bilateral relations with a number of normally smaller companies, and the equal partner network in which a number of firms develop close relationships with each other, and work together in variable configurations on a variety of projects. These forms approximate to Snow et al.'s (1992) stable and dynamic networks. His third category, the internal network, is regarded as outside the brief of cooperative strategy since it is found in a hierarchy.

21.5.4 The Equal Partner Network

In equal partner networks firms, in Powell's (1987) words, engage in: 'reciprocal, preferential, mutually supportive actions. Reputation, trust, tacit collusion, and a relative absence of calculative quid pro quo behaviour guide this system of exchange. In network forms of organisations, individual units exist not by themselves, but in relation to other units'. Yet they do not submerge their personalities in each other or engage in wide exclusive arrangements with each other. In Pfeffer and Salancik's view (1978) such networks are formed to reduce the level of uncertainty in a firm's perceived environment. Equal partner networks are so named because, unlike in a dominated network, there is no single partner which sets up and controls the network's activities. However, this does not necessarily imply that all partners do in fact have equal power. In all equal partner networks, power relationships are varied and constantly shifting with the fortunes of members. The equal partner network differs from the dominated network also in that it is not a substitute

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organizational form to the integrated firm. Rather is it the expression of a set of developed relationships between firms that form a substructure from which competitive organizational entities may emerge.

Figure 21.9 illustrates in a stylized fashion the nature of relationship and contacts between members in equal partner networks in contrast to those in dominated networks. Equal partner networks can be configured and reconfigured to meet changing market opportunities, and often with a different lead partner in the ascendant. This is both their strength and their weakness. Whilst it implies great flexibility and an ability to respond to changing, often turbulent environments, an equal partner network lacks the permanent brain and central nervous system that will ensure its combative ability against an organization so endowed. Any organization hoping to compete with vertically integrated companies, which possess production and sales capacity and strong identifying brand names, needs to convince the public of its enduring existence. It also requires a leadership capacity to plan and execute strategy, and information systems sensitive enough to convey what needs to be done and to ensure that it is done. This cannot easily be achieved via the loose linkages of an equal partner network, despite its other already identified advantageous qualities. For this reason an equal partner network is more of the nature of a dense set of mutually aware capabilities, than an actual organization form. Such networks may therefore often be in transitory forms which will develop into dominated networks, virtual corporations or even integrated companies in due course. In economies where networks traditionally flourish like Silicon Valley, California, the emergence of new firms out of a deeply embedded network substructure does not disturb the basic network characteristics of the economy.

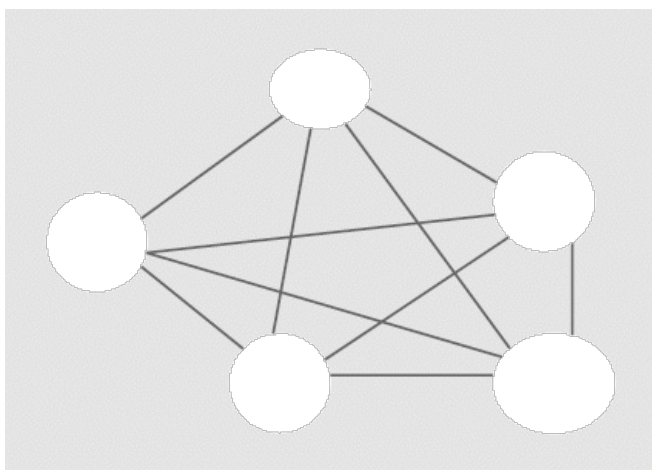


Fig. 21.9 Communications in an equal partner network

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21.5.5 The Dominated Network

The dominated network is most frequently exemplified by the Japanese keiretsu (Gerlach 1992) in which a major corporation, e.g. Mitsubishi, exists with a wide and varied network of subcontractors and associated companies, which provide it with services on a regular basis. The network surrounding Rugman and D'Cruz's (1993) flagship firm is similarly a dominated network. The network is regarded by all the institutions concerned as a kind of family with the hub company as the paterfamilias, and the periphery companies as its children. Hub companies often have seats on the boards of the keiretsu companies and may hold a small percentage of their equity. The network structure is used to ensure reliability and quality of supply components, and to make production systems like just-in-time logistics easier to administer.

The dominated network owes its recent growth in the West to two major unconnected factors: the international success in certain high profile markets of industrial Japan, and the fall from grace of the large vertically integrated multi-divisional industrial corporation, and its replacement as a favoured paradigm by the downsized, delayed, core competence based 'lean and mean' organization, relying on outsourcing for its production in all functions except those deemed to be strategically vital and close to its core competences.

The Japanese industrial keiretsu represents the archetype of the dominated network. In Gerlach's words (1992):

the vertical keiretsu are tight hierarchical associations centred on a single large parent and containing multiple smaller satellite companies within related industries. While focused in their business activities, they span the status breadth of the business

community, with the parent firm part of Japan's large-firm economic core and its satellites, particularly at lower levels, small operations that are often family-run.... The vertical keiretsu can be divided into three main categories. The first are the *sangyo keiretsu* or production keiretsu, which are elaborate hierarchies of primary, secondary, and tertiary-level subcontractors that supply, through a series of stages, parent firms. The second are the *ryutsu keiretsu* or distribution keiretsu. These are linear systems of distributors that operate under the name of a large-scale manufacturer, or sometimes a wholesaler. They have much in common with the vertical marketing systems that some large US manufacturers have introduced to organize their interfirm distribution channels. A third—the *shihon keiretsu* or capital keiretsu—are groupings based not on the flow of production materials and goods but on the flow of capital from a parent firm.

Whilst Gerlach's description of the different types of keiretsu in Japanese industry is clear and categorical, in the complex world of reality the webs of the keiretsu do in fact frequently overlap, and it is possible to have keiretsu with dual centres, the one a manufacturing or trading centre and the other a bank. It is also not unusual for the outer members of keiretsu to deal preferentially with each other as well as with the core company.

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Such dominated networks are not unique to Japan, although they are a strong feature of the Japanese industrial system of production and distribution. In the UK Marks & Spencer's relationship with its suppliers has many of the characteristic features of the dominated network including control over quality and supply in exchange for large annual order commitments.

Relationships within dominated networks typically take the form illustrated in Figure 21.10. There is often only limited networking between satellite companies, except in relation to the business of the dominant company. The dominant company may establish formal links with the satellite through a minority shareholding and/or board membership. But this is not always or even generally the case. The advantage of such networks from the viewpoint of the dominant company is that it can rely on regular quality supplies at a pre-agreed price without the need to put up the capital and management resources to create them directly. From the satellite's viewpoint, it can economize on sales and marketing expenditure and have the security of reliable orders and cash flow for its planning purposes, which removes many of the risks from its business. Of course at the same time it also removes some of the autonomy, and if the satellite allows too great a percentage of its business to be with the dominant company it is at risk of ceding all independent bargaining power over such matters as price changes or product development.

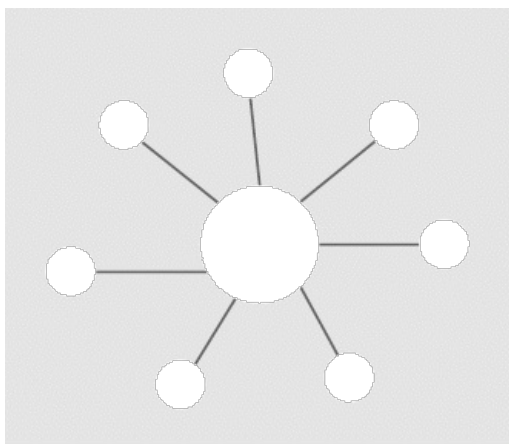


Fig. 21.10 The communication pattern in the dominated network

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21.5.6 An Overview of the Network

Network theory has become prominent in recent years as the basis for new organizational forms, and for the growth of cooperative strategy as a counterbalance to the self-sufficient philosophy underlying competitive strategy theories. At one level however, networks have always been with us. Shortly after any individual starts up a business, or engages in any repeated endeavour, he begins to build up a network out of the associates with whom he interacts. In the business world they will be suppliers, distributors, and perhaps to a lesser extent competitors and customers. He will always consider the degree to which he should outsource some of his potential activities, and the level to which he should deal directly with the customer or develop his sales through a network. In some areas, e.g. Northern Italy, this has traditionally led to strong specialization of activity amongst family firms, and therefore the network as the fundamental underpinning of

business activity. In other areas, notably much of the United States, vertical integration has been more the norm until recently, with cooperative networked activity therefore treated with some suspicion.

The degree of prominence networks have received has significantly increased in recent years. This is due largely to the globalization of markets and technologies, leading to the widespread growth of cooperative activity as a necessary strategy, if firms with limited financial strength, focused competences, and limited 'global reach' are to be able to compete in global markets.

An attractive characteristic of many networks then is that they help members to achieve increased global reach at low cost and with minimum time delay. They are flexible in their membership and able to respond rapidly to changing environmental situations. In an increasingly turbulent world, they reduce uncertainty for their members. They enable synergies between members to be captured and provide the conditions for the achievement of scale and scope economies through specialization. They are also good vehicles for the spreading of information and all forms of market intelligence. Under conditions of trust between members, they may also reduce transaction costs, in contrast to vertically integrated companies with internally competitive cultures.

However networks, if they are to be contrasted with vertically integrated companies and with the arm's length nature of the pure markets form, do not score well on all counts. In dominated networks, the risks for the dominant partner are of unlicensed technology leakage, of poor quality assurance, of a possible diffusion of internal feelings of identity and motivation in the outlying companies. There is also the difficulty of communicating tacit knowledge and of achieving a sufficient level of coordination between members in different companies to compete successfully with the systems of integrated companies: the 'singing from several hymn sheets' problem. For the smaller companies in the dominated network, there are the problems of feeling too dominated, and thus of loss of autonomy and motivation,

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of lack of promotion opportunities, of insecurity, and of the difficulty in recruiting high quality personnel to small companies with limited prospects.

In equal partner networks the primary problems relate to the lack of a brain and a central nervous system. By their nature they are loosely organized coalitions without a permanent acknowledged leader. Major investment in such networks is difficult to organize, and there is the perpetual tension between trust and the risk of prisoners' dilemma defection by partners, i.e. the potential creation of competitors as a result of too much misplaced trust. There is also the difficulty for a network of driving consistently towards a vision of the future, in the way a successful vertically integrated company can and does.

21.6 The Future

As Michael E. Naylor, one time boss of General Motors once said, 'There are no facts about the future, only opinions.' It is therefore not possible to tell if the present time is one of transition, in which greater economic turbulence leads to more flexible organizational forms, only to be followed by a period of renewed stability accompanied by the re-emergence of more rigid hierarchies. Or whether the turbulence is here to stay, and the resultant need for strategic flexibility will make flexible cooperative forms of economic organization the dominant ones and ultimately the only naturally selected ones.

The author is inclined towards the second view. The globalizing effects of the Internet alone are likely to create a global strategic market for most industries within the next decade. Yet the variety of peoples, tastes, and needs is likely to persist outside what are called the staple industries leading to the persistence of economic volatility. In a very large market a small swing in demand can involve very large figures for an individual company. The federated enterprise is therefore likely to grow more common in its many varied forms.

Loyalty to integrated companies is likely to continue its decline, and by those companies to their employees. Workers will seek security in their skills rather than in paternalistic corporations, and those skills will need to be broad-based, multi-application skills, and capable of being adapted to meet ever-changing situations and needs. In such a world we are likely to see the decline of hierarchy, of traditional authority, of seniority, and of dogma. In their place will emerge the power that comes from knowledge, from being able to do things, from the ability to 'learn new tricks', and from establishing and maintaining valuable relationships.

This will mean a growing need for the skills that enable people to develop cooperative relationships and produce valued outcomes through them. It is a

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world of, often temporary, cooperation to meet changing needs and demands above all through strategic alliances and strategic networks if current trends are to be reliably extrapolated into the future. This will not necessarily mean the death of the multinational, as it has many strong survival qualities. But it is likely to lead to the development of more flexible multinational corporations in specific industries operating side by side with an increasing number of federated enterprises, some of which will preserve their federated form over time, and

others of which will be absorbed by the stronger partner or a third party.

The global economy of the future will undoubtedly see a growth of networks in the search for reduced uncertainty in the face of the increasing turbulence of world economic activity resulting from the globalization of technologies and markets. Cooperative strategy will become more prominent. But it can never replace competitive behaviour in the ultimate marketplace, if pressures for efficiencies are to be maintained, and the by now hackneyed slogan to 'cooperate in order to compete' is likely to be heard ever more.

21.7 Conclusions

Cooperative strategy, whether in the close form of strategic alliances or the more loosely coupled form of networks, requires attitudes and approaches to management quite distinct from those found in hierarchies. It generally emerges when one company finds itself unable to cope with a global or other challenge, because of limitations in its resources and competences, and seeks an ally to reduce its vulnerabilities. Where this new mode of organizing its business is approached flexibly and sensitively by the partners, enduring, successful, and mutually beneficial relationships can be created and maintained. Indeed there are grounds for believing that the future of these more flexible organizational forms as exemplified in alliances and networks is likely to be bright. Such arrangement will not survive, however, if partners play power politics with each other, show lack of commitment, distrust, and lack of integrity and do not make very positive steps to deal with the cultural differences between the partners that will almost inevitably exist. It is these latter mishandled situations that have led to the reported 50 per cent failure rate of recent alliances. The need is to understand the key factors for success in managing alliances as competently as the lessons from management theory in handling integrated hierarchical corporations. They are as different as the contrast between giving orders from a position of authority compared with developing a consensus for action in a community of equals. Only when this difference is appreciated and translated into changed behaviour will the failure rate of cooperative arrangements begin to decline.




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References

- Bleeke, J., and Ernst, D. (1995). 'Is your Strategic Alliance really a Sale?'. *Harvard Business Review*, Jan–Feb.: 97–105.
- Casti, J. L. (1991). *Paradigms Lost*. London: Abacus Books.
- Coyne, K. P. (1986). 'Sustainable Competitive Advantage: What it is, What it isn't'. *Business Horizons*, 29 1: 54–61. [Link](#)
- Davis, G. F., Diekmann, K. A., and Tinsley, C. H. (1994). 'The Decline and Fall of the Conglomerate Firm in the 1980s: The Deinstitutionalisation of an Organisational Form'. *American Sociological Review*, 59: 547–70. [Link](#)
- Garrette, B., and Dussauge, P. (1995). 'Patterns of Strategic Alliances between Rival Firms'. *Group Decision and Negotiation*, 4: 429–52. [Link](#)
- Gerlach, M. L. (1992). *Alliance Capitalism*. Los Angeles: University of California Press.
- Grant, R. M. (1991). *Contemporary Strategy Analysis: Concepts, Techniques, Applications*. Oxford: Blackwell Business.
- Hamel, G., Doz, Y. L., and Prahalad, C. K. (1989). 'Collaborate with your Competitors and Win'. *Harvard Business Review*, Jan–Feb.: 133–9.
- Handy, C. (1992). 'Balancing Corporate Power: A New Federalist Paper'. *Harvard Business Review*, Nov.–Dec.: 59–72.
- Jarillo, J. C. (1993). *Strategic Networks: Creating the Borderless Organization*. Oxford: Butterworth-Heinemann.
- Johanson, J., and Mattsson, L.-G. (1991). 'Interorganisational Relations in Industrial Systems: A Network Approach Compared with the Transaction-Cost Approach', in G. Thompson, J. Frances, R. Levacic, and J. Mitchell (eds.), *Markets, Hierarchies, and Networks*. London: Sage Publications, 256–64.
- Levitt, T. (1960). 'Marketing Myopia'. *Harvard Business Review*, July–Aug.: 45–57.
- Lorenzoni, G., and Ornat, O. A. (1988). 'Constellations of Firms and New Ventures'. *Journal of Business Venturing*, 3: 41–57. [Link](#)
- Mattsson, L. G. (1988). 'Interaction Strategies: A Network Approach'. Working Paper.
- North, D. C. (1996). 'Reflections on Economics and Cognitive Science'. Public lecture, JIMS Cambridge.

- Ohmae, K. (1989). 'The Global Logic of Strategic Alliances'. *Harvard Business Review*, Mar.-Apr.: 143–54
- Pfeffer, J., and Salancik, G. (1978). *The External Control of Organisations*. New York: Harper.
- Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.
- (1985). *Competitive Advantage*. New York: Free Press.
- (1987). 'From Competitive Advantage to Corporate Strategy'. *Harvard Business Review*, May–June: 43–59.
- and Fuller, M. B. (1986). 'Coalitions and Global Strategy', in M. E. Porter (ed.), *Competition in Global Industries*. Cambridge, Mass.: Harvard University Press.
- Powell, W. W. (1987). 'Hybrid Organizational Arrangements: New Form or Transitional Development'. *California Management Review*, Fall: 67–87.
- Powell, W. W. (1990). 'Neither Market nor Hierarchy: Network Forms of Organisation'. *Research in Organisational Behaviour*, 12: 295–336.

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- Prahalad, C. K., and Hamel, G. (1990). 'The Core Competence of the Corporation'. *Harvard Business Review*, 90: 79–91.
- Richardson, G. B. (1972). 'The Organisation of Industry'. *Economic Journal* 82/Sept: 883–96. 
- Rugman, A., and D'Cruz, R. D. (1993). 'The Double Diamond Model of International Competitiveness: The Canadian Experience'. *Management International Review*, 2:17–39.
- Snow, C. S., and Thomas, J. B. (1993). 'Building Networks: Broker Roles and Behaviours', in P. Lorange (ed.), *Implementing Strategic Processes: Change Learning and Cooperation*. Oxford: Blackwell.
- Miles, R. E., and Coleman, H. J. (1992). 'Managing 21st Century Network Organizations'. *Organizational Dynamics*, 20: 5–20. 
- Thorelli, H. B. (1986). 'Networks: Between Markets and Hierarchies'. *Strategic Management Journal*, 7: 37–51. 

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25 Managing Strategic Change

Richard Whipp

25.1 Why Managing Strategic Change?

THE centrality of managing strategic change for contemporary organizations became abundantly clear during the 1990s. The problems it presents for managers are as pervasive as they are challenging. Businesses are confronted by: new bases of competition, the redefinition of whole sectors, and the continual re-establishment of innovative practices by leading companies from across the globe. Whilst micro electronic and communications technologies offer a platform for new products and services, they also have led to the redrawing of competitive maps and the abandonment of long-established rules of engagement. Change has become the watchword of the era. The ability to handle the implications of such disturbance, at the level of the firm or organization, is highly prized.

A glance at the recruitment pages in the international financial press reinforces the image of change as a critical concern to organizations of all types. The recent advertisement by Jersey Airport is instructive. In seeking to attract a new manager for the airport, the requirements of the position are seen almost exclusively in terms of managing strategic change. As Figure 25.1 shows, this 'change director' will have to address a 'strident technical, financial, and cultural agenda' where all stakeholders embrace this vision. The appointee must convincingly answer the question 'why change' as well as exhibiting commercial flair, understanding of

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The advertisement is for a 'CHANGE DIRECTOR' position at Jersey Airport. It features the PricewaterhouseCoopers logo and the text 'EXECUTIVE SEARCH & SELECTION'. The main headline is 'CHANGE DIRECTOR Who Knows What Tomorrow Brings? JERSEY UP TO £70,000'. The ad describes the role as helping take Jersey Airport to a tomorrow that gives full expression to its status as the most customer friendly airport in the British Isles. It mentions a 'strident technical, financial and cultural change agenda' and lists requirements such as 'developing external public relations', 'engaging people at a time when uncertainty and insecurity are very visible', and 'embracing this vision and convincingly answer the question: Why change?'. Contact information for PricewaterhouseCoopers Executive Search & Selection is provided, including the address '32 London Bridge Street, London SE1 9SY', phone '0171 378 0647', fax '0171 339 3895', and email 'mohan.yogendran@uk.pwcglobal.com'. The website 'www.pwcglobal.com/executive/uk' is also listed.

Fig. 25.1 Change director

project management, leadership, and provide 'an eye for systems and processes that deliver' results.

It is striking how the advertisement assumes that the role of manager implies an extensive range of change management skills. A similar picture emerges in other job

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announcements from sectors such as finance or health care. The feature which links them all is the breadth of problems faced by organizations in both coping with the implications of their strategic choices and translating such decisions into operational form (see also Box 25.1 below).

Box 25.1 The BBC

The BBC has been described as the UK's most global brand. Its output is known worldwide and its programme makers enjoy the highest of reputations. In the space of just over a decade, however, it has moved from a position of oligopoly to one where viewers now have the choice of hundreds of channels with the advent of digital technology.

During the 1990s the regime of the director-general, John Birt, had emphasized efficiency and productivity in an attempt to bring costs under control. Great weight was placed on the creation of an internal market with elaborate rules and procedures governing relations between departments such as programme makers, journalists, and designers.

The criticism of Birt's reforms were as loud during his period of office as they have been since his departure in 1999. The corporation had become fragmented and individualism was the dominant tone. Market-like exchanges inhibited collaboration and the drive for financial control diminished the energy needed for programme excellence. Serial reorganizations fell into disrepute as they disrupted the efforts of editors and journalists yet seemed to leave senior managers untouched. Identifying the organization's main decision-making processes became impossible.

The BBC now has new executives in post, including Greg Dyke as director-general (after a career in television management) and Gareth Jones, the new director of human resources. Jones has worked as an academic specializing in change management as well as being in charge of human resources at Polygram. Both took up their posts in the past year and agree that the corporation is over-managed and under-led. The BBC, they argue, has to reinvent itself.

The task facing the BBC is a major one. It has to sustain its reputation for excellence as a public-service broadcaster while competing in the new digital environment. There is a clear need to establish a new common purpose which links all staff. The internal market has to be reduced so that rules do not stifle creativity. At the same time, the absence of the stakeholders associated with private businesses must not be allowed to re-create the conditions of the past where BBC staff became notorious for their insularity. The delicate balance between risk-taking and commitment to the organization will have to be created and maintained. All this will have to take place against a labour market which has become particularly volatile with the drawing power of new on-line businesses.

25.1.1 Management Capabilities

While companies have grown more aware of the demands of strategic change, managers appear to be concerned about the readiness of their organizations to

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respond. In 1999 the Economist Intelligence Unit and Andersen Consulting questioned 350 senior managers from around the world on the subject of corporate change. Although half had experienced major changes in their business in the past five years, they expected more radical changes by 2010. Only 3 per cent considered their organizations had the techniques to withstand the demands presented by, for example, small, fast-moving knowledge-based companies. Almost 40 per cent cited the skills of people management, communication, and relationship building as lacking in their organization. Only 4 per cent claimed that they were 'very well' prepared for the changes of the next decade.

The results of the survey show how managing strategic change remains a major difficulty in spite of over thirty years of oil price shocks, the advent of new sources of competition from Asian economies, and the appearance of successive waves of so-called 'best practice'. The example of Boeing, the world's most successful aircraft maker, is instructive. Its dominance of its sector notwithstanding, the raft of changes it has to manage over the next five years and beyond is considerable. Seen through the eyes of chairman Philip Condit, this will include: integrating the recently acquired business of McDonnell Douglas; becoming a global rather than a US company; and managing

joint ventures with new partners such as those from China. Boeing is candid in admitting that it is impossible to hold on to a 'technological edge'; their advantage will lie in 'human capital' and 'how they run the business'.

As the difficulties facing organizations have multiplied, so academics and reflective practitioners have continued to analyse the pattern of offerees involved and to suggest appropriate responses. The broad aim of this chapter is to provide the reader with access to the wealth of approaches to managing strategic change which are now available. Entering the new century, the subject has reached a state of maturity. A succession of schools of thought have emerged, each addressing the problems which confronted their era. Now is an excellent time to synthesize that work and identify the potential problems and solutions for those who have the responsibility of managing strategic change.

The four main sections of the chapter cover these objectives in the following ways. Section 25.2 presents an overview of the field of strategic management and explains how strategic change has become a separate area of specialization. The beneficial merging of techniques and insights from the strategy and organizational fields is a major outcome of recent developments. The pervasiveness of the problem of strategic change has led to the widespread adoption of a change rhetoric by almost every type of organization. The result has been a somewhat restricted vocabulary, reliant on dramatic notions of transformation. In Section 25.3, a more inclusive terminology is offered in the form of a change typology which acknowledges the subtle but vital differences of context and extent of alteration. The specialists who have made use of such distinctions are the subject of Section 25.4. The development of the strategic process perspective has produced arguably the

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most penetrating insights into the management of strategic change and its exponents are given separate coverage here. In the light of the difficulties most organizations face in managing strategic change, Section 25.5 examines how leading researchers have grappled with these problems. The section uses the examples of crises, implementation, and resistance. The chapter closes with a consideration of the possible future direction of the subject and the potential sources of analytical and practical innovations. It ends with a summary of the requirements for an organization which is fully able to manage strategic change across different contexts.

25.2 Insights from Research and Practice

The past thirty years of research into the problem of strategic change and how it may be managed look richly textured but uneven. The following pages make reference to such a history and seek to show how different emphases have given rise to contrasting insights. The section will also establish some of the key concepts and terminology which have arisen and are useful for analysing change management. This will lead to the consideration of: the planning orthodoxy of the 1960s; the decision-making frameworks of the 1970s and their links with the cultural, political investigations of change; the reaction by US and European scholars in the 1980s and 1990s to the business policy model's silence on change, which resulted in an alliance between experts on competition, innovation, and organizations. The outcome will be an appreciation of the major ways of explaining the character of strategic change and the options of how to manage it.

Strategic change is in many respects the offspring of the subject of strategy which has grown markedly over the last decades of the twentieth century. Strategy's core meaning had long been encapsulated in Chandler's formula as: the determination of the long-term goals of an enterprise, the allocation of resources, and the courses of action required for meeting those goals (Chandler 1962: 13). Later work has emphasized the need for a strategy to neutralize threats and exploit opportunities (Barney 1997: 27) as well as matching an organization's resources to its environment so as to meet stakeholder expectations. Strategic management is concerned with how strategies are adopted. Managing strategic change refers, therefore, to the management of the changes which specific strategies give rise to and imply.

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25.2.1 Planning and Decision-making

In the decades immediately following World War II, the notion of corporate strategy grew strongly, based on microeconomics and the assumptions of rational profit-maximizing behaviour and full information. Heavy emphasis was placed on financial planning (Bourgeois 1996: 5). The corporate strategy tradition has been sustained in various forms down to the present. Since the 1960s and 1970s, however, a stream of enquiry began into how organizations operationalized given strategies. The earliest examples were seen in the work of March and Olsen (1976), who showed how the decisions of managers were seldom wholly rational and that coalition formation led to important trade-offs over outcomes. Their research highlighted how the implementation of strategic decisions could be haphazard and reliant on subjective judgements. Mintzberg's (1978) empirical study of strategy formation and execution concluded that these constituted identifiable change processes which required analysis and management on their own terms.

As interest grew in the full length of the strategic decision-making process, so this attracted the attention of scholars who specialized in

the study of the political character of organizations. Their work (see e.g. Pettigrew 1977) shows how interest groups form around strategic issues and compete for resources; the balance of power between them shifts in relation to episodes of change. Negotiation between coalitions occurs as they seek to establish their preferred outcomes. Courses of strategic action are therefore subject to mutual adjustments between those who seek to influence the decision-making process and those who must carry out the strategy. The linking of notions of power and politics to strategic management drew attention to the potential involvement of those from within and outside an organization. Influence is seen as conditional on the organization's dependency on such individuals or units (Hickson et al. 1986).

25.2.2 Cognition and Culture

During the 1970s and 1980s, the recognition of the way strategy development and implementation could be affected by perception and subjectivity led to a wider interest in the role of cognition and culture. The central proposition which emerged was that organizations possess a taken-for-granted and shared framework of attitudes, values, and perceptions. This framework of values enables the organization to interpret the environment in which it operates and helps it to deal with new or complex situations. Choices over strategies are therefore shaped by such value systems and the problems of implementation are addressed within the confines of an organization's culture (Schein 1985). Managers' reactions to the issues which arise in the elaboration and application of a strategy are often conditioned by, for

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example, 'organizational routines' which owe their existence to the organization's culture and its historical development.

The application of behavioural and cognitive perspectives to the subject of strategic management led to the concentration by some writers on the role of individuals, usually leaders. The emphasis is upon such an individual's ability to choose a desired future state for the organization which, in turn, suggests a specific strategy and its adoption by others. The vision of some future state may well represent a sharp break with convention and require unfamiliar strategies as far as the organization is concerned. Visionary leaders, it is argued, share the qualities of breaking down traditional thoughts and practices, creating new strategies which draw on the organization's shared values, and communicating new courses of action convincingly to others. The legitimacy of a strategic direction is thereby obtained and the authority for its realization achieved (Trice and Beyer 1986).

An alternative, and by comparison, restrictive view of strategic management grew up alongside but separate to the behavioural approaches. The emphasis is on the limitations which the environment places on an organization's ability to select strategies which match the dominant features of that context. The scope for individual choice is small. When organizations produce variations or new departures in strategy, only those that meet the criteria accepted by the environment survive. Advantages emanating from strategic choices tend to disappear as awareness spreads of the innovation and imitation follows (McKelvey and Aldrich 1983).

25.2.3 Strategic Change Processes

The long-term growth of the strategy field has therefore produced a set of influential perspectives on strategic change which have contributed to the literature by concentrating on decision-making, politics, culture, individuals, and the environment. Many researchers of strategic change are either located within these traditions or draw extensively on their main tenets. This profile is valuable as a guide to how differing emphases have occurred; it is also a reminder of the very different backgrounds of the various authors. The planning approach has relied on academics with economics backgrounds while the political or interpretive schools contain people largely with experience in psychology or behavioural subjects. It is, thereby, an indication of the scope of the problems posed by both the phenomenon of strategic change and the question of what might be relevant to its management.

One way of reinforcing the richness and strength of this field is to dwell on the character of the change processes which the different traditions imply. As Figure 25.2 shows, it is possible to isolate for a moment the organizational level at which change may occur: the micro and the macro. At the same time, one may distinguish whether structural features are paramount in explaining the change process or the

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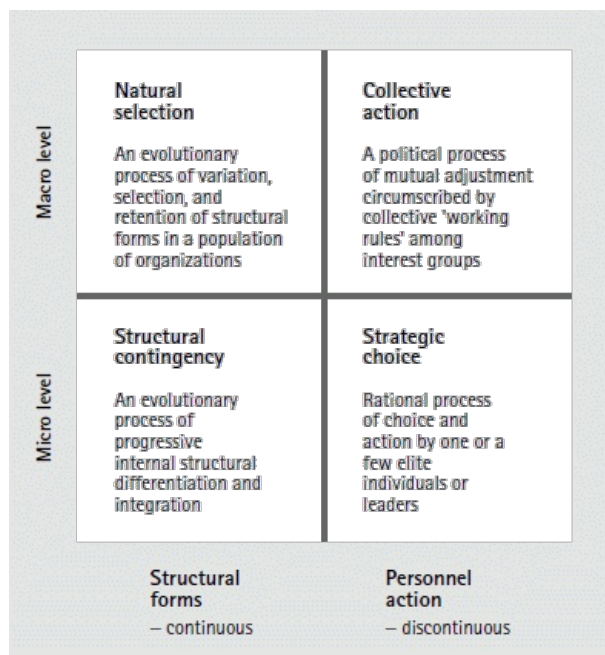


Fig. 25.2 Processes of change within orthodox organization theory

actions of people. By combining these aspects in a matrix, four main types of change process are apparent, as indicated in Figure 25.2. The perspectives outlined in the preceding paragraphs can be seen to be emphasizing the different types of change processes found in Figure 25.2. The planning experts and the leadership specialists adopt a more rational strategic choice view of change. By contrast, those who advocate the political or cultural approaches are using a more macro-based, collective action notion of organizational change. It is worthwhile to bear such distinctions in mind when assessing the work of individual authors on the management of strategic change, as will occur in the subsequent sections of this chapter.

25.2.4 Strategic Change and Competition

During the 1980s and early 1990s, dramatic shifts in the nature of competition and the appearance of marked differences in the performance of national sectors made a notable impact on the field of strategic change. The success, in particular, of

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Japanese producers of manufacturing and consumer goods internationally, but especially in Western domestic markets, led to a two-stage response. After initial shock, the first actions of US and European commentators were centred on attempts to understand the nature and reasons for the success of the new entrants, such as Honda or Matsushita (Pascale 1990). In spite of the Japanese having no direct equivalent for the English word 'strategy', their apparent ability to manage strategic change became a source of fascination. In due course, admiration for the skills of linking long-range vision, technological innovation, and unprecedented levels of quality, led to a second outcome: a resurgence in interest in the subject of managing strategic change itself.

In truth, the reaction of Western writers appeared to be based partly on anxiety over the continued relevance of their established body of work, and equally on the need for managers and analysts to come up with new techniques of strategic change management to meet the competitive circumstances of the time. The result was a flood of commentary and prescription which often suffered from its shrill tone and meagre evidential base. Peters and Waterman (1982) seemed to be answering the need of US, and later European managers, when they claimed to have discovered the explanation for the 'excellence' of US companies (such as Apple and People's Express) who shone in their sector. In passing, they used their experience at consultants McKinsey to draw on established work on strategic change, especially the cultural and visionary perspectives (see above). Others followed, with the result that transformational change—requiring the complete replacement of the *raison d'être* of the organization and the bases on which it competed—became a dominant concern. Commentators became obsessed with the exceptional feats of change (as the cover from a contemporary report shows, see Figure 25.3). Subsequent research led investigations appeared which drew extensively on the ideas of the decisionmaking, political, cultural, and individual perspectives. Kanter's work (1990), spoke both to the spirit of the times and showed how innovations in strategic management techniques could be achieved through, for example, imaginative approaches to communication, leadership, and influence processes.

The turbulence in competition and the challenge to the previous reputational orders in various sectors in the 1980s and 1990s sparked a fresh interest in strategic analysis, led by students of the microeconomics tradition which had underpinned the earlier strategic planning approach. Porter highlighted the need for organizations to clarify their choice of direction in relation to so-called mutually exclusive 'generic strategies' (such as cost leadership versus differentiation). He later presented a model of extended competition (Porter 1985) which embraced sources of competition from both conventional rivals and sources outside the sector. Others using the micro-economics tradition applied a rejuvenated version of the resourcebased theory of the firm to the problem of strategic management. According to the theory, competitive performance is explained by reference to the ability of a firm to maintain a unique collection of capabilities (technological, organizational, and

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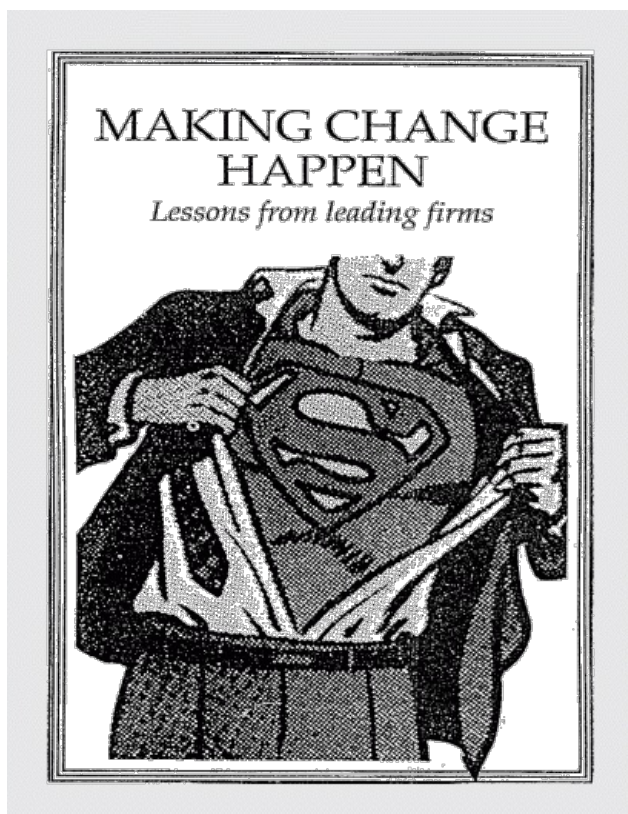


Fig. 25.3 Making change happen

financial, for example) by which innovative products or services are delivered and which competitors find difficult to replicate. Others responded by showing how the competence to manage the strategic changes involved is worthy of inclusion in any assessment of competitive performance (Pettigrew and Whipp 1991).

The potential contribution which could be made to the understanding of strategic change by writers from a diversity of backgrounds is formidable. Some see the problem of change as the core issue, others provide insights in a more indirect way while exploring aspects of competition. The inclusive approach adopted in this section points not only to the scale of features with which organizations are confronted when managing strategic change but also to the spread of academic perspectives which may aid explanation. Having surveyed the field, it is necessary to give closer attention to more detailed aspects of strategic change: the first concerns the matter of the language used to describe and comprehend change.

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25.3 The Language of Change

The need to dwell on the nature of change and how it is described is necessary, notwithstanding the wealth of publications on the subject. Partly because of the almost universal recognition of the problem of change management, students and managers alike seldom inspect their assumptions behind the vocabulary they employ. Many of us are guilty of using words such as change and transformation

interchangeably without thinking of the loss of clarity. A durable means of describing organizational change is vital if one is to tackle managing strategic change with any precision. This requires an exploration of the contrasts between basic types of change, as well as creating a means of distinguishing the differences in degrees of alteration. The importance of continuity to understanding its opposite—change—also requires attention.

25.3.1 A Change Typology

Change within an organization may vary according to whether the change is localized and small scale as opposed to being organization-wide. In addition, the extent to which the change in question requires new products, knowledge, and ways of operating may be contrasted against change which is based on a recombination of existing elements of the organization. Change may also evoke different orientations by members of the organization, ranging from reactive to anticipatory stances. If these considerations are joined they can be arranged to produce a fourfold categorization of organizational change.

The first is 'tuning'; where the degree of change is slight and adjustments are made to current policies and practices from within the organization. A classic illustration would be Marks & Spencer, until recently the UK's largest and most profitable retailer, which had been able to make such seemingly slight movements a way of life for some thirty years. 'Adaptation' is the second, when a firm is forced to alter in a reactive way to external pressures and stays within the accepted logic of its environment. The reaction of J Sainsbury, the UK supermarket leader (who pioneered own-label products) to the threat of Tesco in the 1980s is an example. The third type, 'reorientation', is when an organization attempts a shift in its core activities, diversifying into a related industry or vertically integrating through the acquisition of a supplier, for example. In the fourth category is 're-creation'. This is the most extreme version of organizational change, where the whole operation is affected and, above all, a fundamental reworking of its reason for existence follows, often resulting in the move into new products or services and their mode of delivery. One of the largest instances is the long overdue move of IBM from its

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loyalty to mainframe computers to a concentration on electronic business services after almost disintegrating in the early 1990s.

Figure 25.4 is a useful summary of the main types of change which exist. It has the added advantage of identifying the level at which the change may occur: the strategic or the operational. The figure reminds us that there exists a specific collection of demands around so-called 'expanded reproduction', where the strategy may stay the same but expansion at the operational level is critical. It is important to remember that, in spite of the recent attraction of commentators to transformational change (in the privatization process, for example), organizations can still be faced with the problem of making 'evolutionary transitions'. In other words, a new strategy may be adopted, but it is based on the same commercial precepts and a remixing of existing organizational capabilities. The move of book publishers into electronic formats in the 1990s is a case in point.

It is equally important that the attention to transformational change in the last decade should not eclipse the relevance of continuity or the status quo. Nadler and Tushman (1988) remind us of the subtle distinctions involved between the different types of change which organizations must master. They argue that not all change is 'extraordinary' but that most change consists of fine tuning that enables an

	Degree of change	Organizational/ strategic level	Characteristics
1.	Status quo	Can be both operational and strategic	No change in current practice
2.	Expanded reproduction	Mainly operational	Change involves producing more of the same (goods or services)
3.	Evolutionary transition	Mainly strategic	Change occurs within existing parameters of the organization
4.	Revolutionary transformation	Predominantly strategic	Change involves shifting or redefining existing parameters

Fig. 25.4 Organizational change

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organization to adapt to the movements in its environment. They recognize the extreme nature of transformational change where the organization is dramatically severed from its past: this they call 'framebreaking', a term which applies to the experience of say Chrysler in the 1980s or Apple Computer since 1998. In contrast, the label 'framebending' is given to the way companies make less stark adjustments in structures, systems, or technology and where the organization retains some continuity with the immediate past. Xerox and NCR were leading examples of framebending in Nadler and Tushman's fifteen-year study of 285 companies. It is also worth recording that even where radical shifts are required in strategy, the need often exists for the management to sustain those capabilities which are advantageous for the organization. The oil majors, Shell and Exxon, for example, still have to maintain their skills in oil extraction and distribution while, at the same time, dealing with the pressures of merger and acquisition, supermarket retail competitors or the resurgence of environmental groups. Managing strategic change therefore requires a range of skills in order to meet the demands of the contrasting types of change involved. One way of revealing the extent of these skills is to look more closely at the process view of strategic change.

25.4 A Process View

While the previous section drew out a variety of specialized ways of describing change, here the aim is to highlight a common strength which links most of the established research on change management. The section centres on the appreciation of change as a process and change management in terms of sequences and flows of activity. It is a demanding approach since it is much easier for the manager or researcher to address an event or episode rather than the forces which surround and link them. The insights offered by the process view include the early 'develop mental' techniques. They also give rise to Mintzberg's pattern of meaning in a stream of actions, as well as Quinn's revelation of the cumulative impact of fragmented yet incremental small-scale adjustments and Ranter's appreciation of cycles of activity in the production of innovative solutions.

25.4.1 The Behavioural Tradition

The early attempts at developing an overview of strategic change as a process drew heavily on the experts in the field of organizational development. Lewin (1947) and

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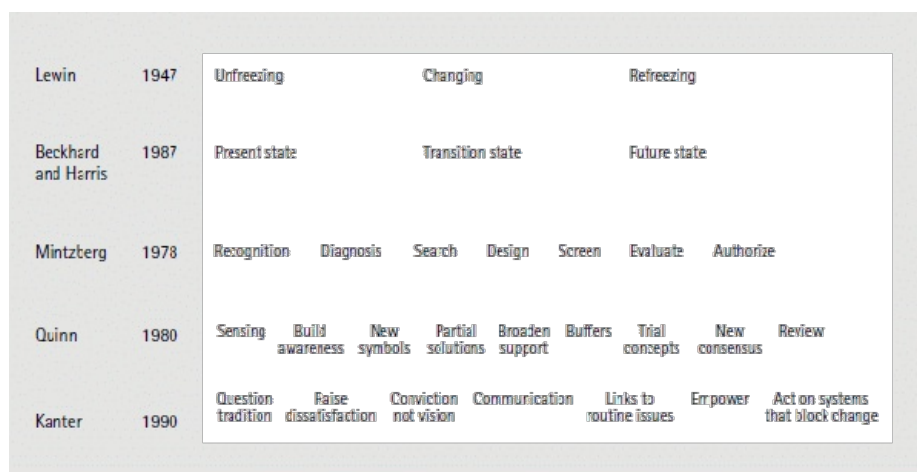


Fig. 25.5 Strategic change processes

later Beckhard and Harris (1987) (see Figure 25.5) are examples of the faith in behavioural techniques of change management. Such work made use of research on group dynamics, for instance. In addition, these writers (and those who later adopted their approach) placed great weight on the ability of managerial action to change organizations towards states of internal equilibrium, if not harmony. Nevertheless, what attracts students of strategic change is the appreciation of the contrasting states which an organization may pass through during such change. In Lewin's case, he argued that action was needed in order to place the organization in a condition where

change would be more readily accepted. 'Unfreezing' therefore refers to the questioning and breaking down of accepted practices, structures, and beliefs in order that major change is more likely to occur. 'Refreezing' denotes the actions necessary to ensure the stabilization of the core changes—what is now treated as the institutionalization of new approaches. The popularity of the frame-works of Beckhard and Harris is explained by their similar concentration on not so much the proposed changes but the intervening 'transition state' which an organization should inhabit as a stepping stone to an eventual altered state.

25.4.2 Multi-stage Models

Subsequent process analyses of strategic change have built on the behavioural tradition. They share the conviction that strategic changes give rise to multi-stage processes but have gone on to develop understanding of such sequences by taking account of the plurality of the actors and influences concerned.

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Mintzberg (1978) discovered that organizations developed a collection of routines for handling major change (see Figure 25.5), basing his conclusions on studying both industrial sectors as well as arts institutions and NASA. He shows the inherent fragility of such processes. Many organizations find their intended changes are rejected or compromised during the attempts, for example, to establish recognition of the strategic problem in question, to agree on the diagnosis of the challenge, or to coalesce around the design of an agreed strategy. Mintzberg was also clear that in listing the order in which such activities conventionally occurred there was a risk of oversimplification. It is equally apparent that organizations do not find these actions taking place sequentially and that some can become locked in almost continuous loops of 'search' or 'evaluation'. It was these results which, in part, led Mintzberg to conclude that strategy was in practice the unpredictable pattern in the stream of these actions.

Kanter and Quinn take seriously the breadth of possible choices and actions which organizations have generated as they seek to establish new strategies and pilot them into operational form. Both base their conclusions on conventional research but share a strong sense of prescription. Quinn leans heavily on his knowledge of US companies such as Pillsbury, Continental Group, or Texas Instruments. He argues that strategic changes can be managed but that managers must relate to a fragmented, evolutionary, and intuitive process. In his view, 'the organization probes the future, experiments, and learns from a series of partial (incremental) commitments' (1980: 58). His full set of potential stages or steps which an organization might employ is extensive. Almost every conceivable tactical device is laid out for developing a new strategic idea, ensuring its comprehension and support, and, not least, the ability to adapt the strategy to events as it is operationalized.

Kanter's approach has many similarities but concentrates more on developing and implementing strategies which innovate. The popularity of her work is partly explained by her antipathy to the orthodox methods of linear planning and execution beloved of major corporations. She sees the measurement and reporting approaches as producing 'rules for stifling change'. In contrast, Kanter offers actions which not only build on the principles of Lewin, or Beckhard and Harris, but which are often challenging and counter-intuitive. She observes how businesses do not necessarily need an external threat to initiate major change. In order to build a climate for change, the questioning of accepted ways of doing things by managers who are in touch with external developments may be an excellent way of generating a productive sense of unease. Raising levels of dissatisfaction is seen as an important way of challenging complacency and thereby making people more receptive to change. She was also one of the first commentators to argue that inculcating a strong sense of conviction for a new course of action within an organization was more worthwhile than a fully articulated vision. As with Quinn, the point was made that people are more likely to identify with an initial straightforward sense of purpose than an elaborate set of very long-term wish lists. She goes on to argue,

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for example, on the practical virtues of linking any change effort to everyday issues affecting staff and is realistic concerning the ability of established systems (in accounting or personnel) to block elaborately thought-out strategic change programmes.

It is a measure of the popularity of such process views of change that this way of thinking has been adopted by writers seeking to summarize the nature of contemporary management. Pascale provides a leading instance of the emulation by mainstream management frameworks of strategic change experts. He maintains (1990) that as management techniques have shifted, in order to respond to new forms of competition and organization, so more reliance is placed by managers on process skills rather than mechanical notions of command structures. To him there has been a major 'contextual shift' in management. The past emphasis on consistency, resolving tensions, and identifying fundamental laws in organizations have been overtaken by a recognition of the need for synthesizing process techniques and maintaining constructive tensions.

25.4.3 Implications

A note of caution is, however, required. Clearly the recognition of the centrality of change processes for all types of organization is welcome. What is less evident is how far the full demands of the process view have been recognized and the implications digested.

Concentration by some managers solely on the apparent steps of Quinn's or Ranter's frameworks invariably leads to disappointment. Strategic change projects collapse in spite of the replication of these process models. Such upsets act as a useful warning. In order for the steps identified by Kanter and others to be of use, their application requires an understanding of the inherent difficulties involved and the limitations on managerial action. Whilst the process specialists have assimilated the political and cultural dimensions of the problem, many would-be adopters of their models have not. Contrary to Pascale's assertion of an epochmaking shift in managerial thinking, many managers remain locked in their rational assumptions of the operation of organizations. It is imperative, therefore, that the full implications of the process perspective are accepted if the outputs of this school of thought are to be used productively. This requires acceptance of the way strategic change implies streams of activities through time. The combination of motive forces behind such processes may extend from the personal to the commercial and the accidental. The opportunities for inertia, reversal, or collapse are legion. Apparently logical and highly relevant attempts at strategic change are often the victim of the internal competitive and selection processes of organizations which are anything but objective.

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An example illustrates the range of problems contained in strategic change processes, both the objective and the less rational. It concerns Fujitsu and its attempt to redefine itself as a leader in the information industry away from its sprawling collection of high technology businesses. In technical terms the company had been damaged in the mid-1990s by its reliance on selling mainframe computers for the majority of its profits. Under Tadashi Sekizawa the president, the strategic aim of the organization has been to exploit its unique combination of technologies (in telecommunications, computers, and systems) in order to play a leading role in facilitating access to the internet. In achieving this ambition, the company has been confronted by the need to manage multiple streams of activities—some clearly commercial, others more intangible. These include, for example, convincing the company's engineers that in order to attain global standards of excellence, they would have to relinquish their preoccupation with proprietary technology and instead work with so-called 'open platforms'. At the same time, such transformations have seen parallel lines of change in new forms of decision-making, an emphasis on productivity/pay links, a 10 per cent reduction in the workforce to 47,600 and the introduction of a venture business scheme.

The process approach is undoubtedly a demanding one for both academics and practitioners alike. One way of exploring the full relevance of this perspective is to consider some of the main difficulties which confront organizations when managing strategic change.

25.5 Challenges in Managing Change

The emphasis in this section is on the problems which confront people, in all types of organizations, as they seek to manage change and the tools which are useful in solving them. The problems are illustrated by reference to three major issues: the first is crisis management—the most extreme form of change, the second relates to the distinctive requirements of implementation, and the third concentrates on resistance.

25.5.1 Crisis Management

The turbulence in competitive forces worldwide during the 1980s and 1990s produced ample opportunities for organizations in every sector to confront crisis conditions. Some, such as Harley-Davidson in the United States or SAS in Europe,

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appeared to relish the challenge and used it to construct new positions in the market based on radical organizational change. The celebration of such cases has also been dangerous, giving rise to the popular wisdom that crises provide excellent opportunities for almost instant corporate rebirth. Yet the way danger and opportunity coexist within a crisis is one of its hallmarks. Whilst the chance to redefine your business may be welcome, managing the requisite changes is usually traumatic.

A crisis is conventionally defined as a life-threatening event for an organization. The immediate trigger may come from a range of sources where the viability of a core product, service, or business unit (and thereby the whole organization) is threatened. The potential for damage to the organization's reputation is extreme. One of the well-known instances comes from Rank Xerox during the 1970s where the one-time leader in 'wet' photocopiers was taken by surprise when Canon introduced dry powder copying machines. Yet as Muller (1985) points out, the attention given to such epoch-making breakthroughs as the dominant cause of a crisis can be misplaced. As Figure 25.6 indicates, there are different types of crisis, each distinguished by the area of the organization in which they occur and the actions required in

managing them. Strategic crises relate to fundamental decisions on the direction of the organization. A financial crisis, however, may arise from liquidity issues which prevent the organization meeting immediate financial obligations. Furthermore, organizations in crisis commonly experience more than one of the crisis types seen in Figure 25.6. The resignation of the chairman of General Motors, Robert Stempel, in October 1992 and the crisis which ensued can be traced to heavy losses in three of its divisions, a \$12 billion unfunded pension liability, and the inability at the operational level to implement a ten-month recovery programme.

Before looking at the techniques of how to manage the change emanating from a crisis, it is important to note the role which managing change plays in explaining why such life-threatening events for organizations occur in the first place. The inability to manage change is critical. As in the Xerox example, it is relatively easy to identify the external causes of crises: in other words, the movements in technology or industry cycles or the shifts in the fields of extended competition which embrace alternative providers of your organization's product or service. What is less well recognized is the collection of internal defects found in management approaches. The ability to assess the environment in which the firm operates is a vital element of managing change. It involves the skills of not just monitoring events but being able to use the knowledge from all levels of the organization linked to relevant networks. Dramatizing such insights so that the appropriate status is accorded to such new information and ensuring that groups can learn from the experience is vital. Crisis-hit organizations present an opposite profile.

As Starbuck, Greve, and Hedberg (1988) famously showed, crises take root in businesses where such practices are in short supply. Instead, the environment is weakly monitored by staff who share unchanging, subjective views of the outside

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Types of crisis management	Actions
Strategic crisis management	Reorientation of the organization strategy: <ul style="list-style-type: none"> • Retreat/Disinvestments • Consolidation • Diversification
Operating crisis management	Operational solutions (e.g. selling, procurement, production) to: <ul style="list-style-type: none"> • Improve efficiency • Reduce costs • Boost sales
Financial crisis management	Financial measures: <ul style="list-style-type: none"> • Bridge liquidity gaps • Change in capital structure
Crisis management during insolvency	Saving the organization through: <ul style="list-style-type: none"> • Successful composition • Receivership

Fig. 25.6 Types of crisis management

world which have remained unchallenged by the inquisitive techniques of Kanter seen in the previous section. This in turn leads to the solidifying of organizational recipes and stock responses. It is noticeable that this pattern is often accompanied by a disproportionate faith in major projects which turn out to be imprudent. Using the example of General Motors, it became apparent that decades of registering 50 per cent of the US car market bred insularity and complacency. The dominance of a finance-based recipe for car making meant the company lost touch with the market and was therefore ill-prepared for the advent of Japanese 'transplant' factories during the 1980s. A late 1980s boom in the US market cushioned its management as they failed to address the underlying weaknesses. The 1990 recession hit the company hard. The experiment of trying to create a '21st century' car company through one project (Saturn) failed to achieve its

unrealistic goals.

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A sharp contrast exists between organizations which fail to survive and those who take the chance offered by a crisis to take imaginative courses of action. Less successful organizations are guilty of denying that there is a problem or covering it over in the anticipation of a return to normality. They avoid change with the result that internal politics and conflict grows out of control. The fall of Barings in 1995 is a telling instance of this behaviour. Most people know of the activities of Nick Leeson, a futures trader, who accumulated some £50 million in losses which led to the collapse of the bank. What stands out though is that auditors in 1994 had already pointed out the dangers of overexposure in the financial markets by his overriding of internal controls. Yet the split in the organization between the more conventional Baring Brothers Bank division with its blue chip clients, and Baring Securities, the home of its gung-ho brokers, was allowed to continue unaltered. Organizational politics meant that Ron Baker, the head of the financial products group in the securities division, was able to protect the rogue trader.

In general terms, those organizations which cope better with crises rely on change management. This means they are able to combine both immediate decisions to ensure survival, along with longer term action which will inevitably call into question established thinking. Indeed, distinguishing the strategic and other elements of the crisis (see Figure 25.6) is imperative. What is more, some organizations use the crisis period as an almost unique space. Given the severity of the problem, it means staff are more likely to offer new ideas, unconstrained by conventional status hierarchies, and genuinely open up to their environment. It is no accident that the problems in schools in the state or public sector in various countries have given rise to these elements of crisis management seen in the appointment of specialist head teachers and task forces to turn around schools in deprived areas. In 1996, the Ridings School in Halifax was dubbed 'the worst school in Britain'. Peter Clark was brought in as the 'troubleshooter' head, having previous experience of turning around a problem school. Reflecting on his experience, he separates the first few weeks of firefighting (excluding certain pupils, introducing security guards, and establishing communication with the pupils) from the long-term plan based on analysis of, for example, a teaching audit.

25.5.2 Implementation

Research on crisis management provides a strong reminder of the centrality of the issue of implementation, whether it be in connection with extreme circumstances or the conditions associated with more conventional strategic management. In the light of the work of the process experts (see Section 25.4 above), a logical reaction might be that there is little else left to say given the extent of their attention to all phases of the process of strategic change. Although such writers provide a valuable

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way of conceiving of the process and its component parts, there are still specific challenges which present themselves as organizations attempt to operationalize strategic plans. Compaq Computer faces the problem of how to move beyond its growth to a \$40 billion full-line computer company in the 1990s. The last year has seen profits fall and the emergence of 'deep-seated problems of strategy and execution specific to Compaq' (leader *Financial Times*, 20 Apr. 1999), as it is forced to change its personal computer business model to cope with the direct selling methods of Dell.

Many writers outside management have drawn attention to this problem area. Some point out that, as in biology, transition or mutation is by definition difficult to comprehend and therefore control. In the case of organizations, commentators have moved away from the notion that implementation was merely the logical outcome of the imperatives contained in a given strategy. Hill and Jones (1998: 347) summarize the position well when they observe that implementation refers to the way a company 'creates the organizational arrangements that allow it to pursue its strategy most effectively'. The keynote is on facilitation rather than a command and control approach. Similar conclusions have been reached by those studying processes of technological innovation and their management (Wolfe 1994). Many people follow the emphasis of Bourgeois (1996) on the need to choose between contrasting approaches to implementation; these extend from, on the one hand, 'commander' and 'control' stances to 'collaborative', 'cultural', or 'crescive', on the other. Yet why is implementation so demanding and what are the more effective techniques which can be employed?

The essential problem arises from the non-linear nature of strategic change processes. The everyday labels of planning and execution or the strategic and operational levels are gross oversimplifications. The process, in practice, is resistant to such categorizations, rooted as they are in our natural attempts to reduce their complexity in order to manage them. Certainty is in short supply and predictive powers rare. Most organizations can point to a deliberate strategy or plan seen in its hard copy form. Yet how the ideas and aspirations in that plan emerge and are in due course realized, are governed by the unpredictability of the changing contexts and their interaction with the behaviour of those involved. Implementation processes fail to respect the sequence charts beloved of project managers. The temporal complexity is high. In other words, the process may have irregular, staccato rhythms. Formulation may not be followed by operationalization. Rather, the two may become locked in a circular loop of decision-making and problem-solving because of the

assumptions locked into the plan. Clusters of iterative action are common, sometimes resulting in a baffling lack of apparent progress. Where the process derives its energy and momentum from is often hard to uncover let alone manage. As Weick points out, it is a fallacy to believe that the spheres of planning and operationalization are separate and discrete activities. In his words: execution is analysis and implementation is formulation.

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Granada, the UK-based television and hotels group, provides a glimpse into the way the inappropriate separation of strategic and operational spheres can be addressed. The group's market value is currently around £7 billion and has enjoyed a tripling of its share price in the last two years. There are four operating divisions: television, TV rental, hotels, and restaurants. Granada's aim is to challenge conventional thinking in each of its businesses. In contract catering they confronted the accepted view that nobody could make more than 4 per cent margins and Granada now achieves 12 per cent. One of the ways this technique has been made to work is through a highly restless management process where the division between the strategic and the operational is hard to discern. Two examples make the point. First, senior executives are deliberately switched between product areas and top managers are allocated clusters of hotels, in order to develop working relations and implementation processes. Second, three-year strategies are turned into annual plans but their operational form emerges from an almost continuous flow of exchanges between Charles Allen, the chief executive and divisional management. This process includes one-to-one sessions where divisional managers are asked, *inter alia*, to identify five high and low points each month. This process involves around 150 people over a year and is not only the main driver of their tenacity in each business but also the source of the insights which will fuel Granada's next strategic direction.

Although it would appear that implementation is largely uncontrollable, since experts emphasize its fragmented and contradictory character, such a negative conclusion would be premature. Those managers who handle implementation well are those who recognize such characteristics and craft their methods accordingly. This requires, in general terms, an acceptance of the iterative and irregular flow of actions and events. A readiness to exploit the accumulation of ideas, partial solutions, and outcomes which arise is invaluable. In addition, those organizations which reflect on Weick's dictum consciously seek out and capture the insights which come from the spontaneous analysis of strategies as they are worked on in the so-called operational forms. Sony's success in consumer electronics, for example, has been shown to rely on the ability to maximize such information and to adapt its strategies and product blueprints as the company seeks to put them to work. As environmental shocks for organizations grow in their frequency and intensity, so previously accepted planning and implementation cycles are unable to cope. Plans are required to be altered throughout the implementation process. In the past this would be considered a deviation. Instead the current climate places a high premium on such 'improvisation' becoming a stock capability.

There also exists a set of techniques which have been proven in use which facilitate the cumulative and improvisational orientation to implementation. First, effort expended in justifying the need for change is time well spent; without it problems of opposition and detachment are simply stored up for later in the process. Second, creating the capacity to mount specific types of change is axiomatic. This may be achieved by a mixture of short-term acquisition of technology or staff, together with

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recruitment and development projects which by definition have a longer time scale. The third technique relates to a bundle of devices which include highlighting the role of change manager and the skills required; adjusting status and reward structures to reinforce the objectives implicit in the change process; and creating the means of monitoring the richness of the flows of events and ideas within implementation so that improvisation is timely and well-informed.

25.5.3 Resistance

Acknowledgement of the manifold difficulties which accompany strategic change processes is widespread, as the previous sections demonstrate. In spite of this clear recognition, one aspect remains neglected or at best under-played—the problem of resistance. In part, the absence is explained by the failure of the strategic change field to engage with the phenomenon of power in organizations. Specialists on the subject bemoan the aversion of most managers to tackle the issue directly.

Analysts have long accepted that change of any kind is liable to provoke resistance. Individuals become fearful of either losing their current status, expertise, and possible influence as a result of a new direction in company policy (see Figure 25.7). Inertia is a natural response whereby the intended change can be slowed down and its impact diminished. Organizations as a whole supply different kinds of blockages

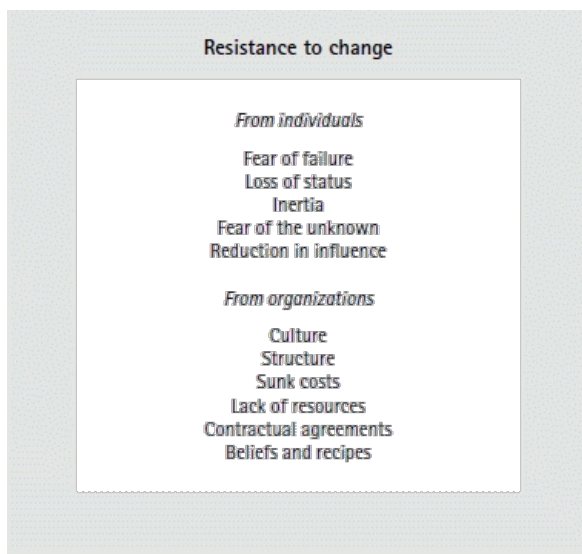


Fig. 25.7 Resistance to change

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to change, usually of a more indirect kind. Divisional structures may inhibit new collaborative projects, for example, or existing contracts might have established set patterns of behaviour which are contrary to the need to work with new joint venture partners. Chemical industry companies, to take an extreme instance, have become notorious for their obsession with invention rather than commercial logic, where each product division serves a different market, and as a result information flows are poor and management conflict becomes entrenched.

The targeting of corporate culture and its management as the means to resolving these types of resistance has become hugely popular since the late 1980s, partly with the encouragement of some of the main management consultancies. Great faith has been placed in the potential of managers to alter organizational beliefs through the manipulation of language or the inculcation of narratives and representations of appropriate behaviour. After the recent experience of British Airways, and other major businesses who have embarked on high-profile culture change programmes, observers are more sceptical. Temporary movement in everyday behaviour is quite possible but the extent to which the core beliefs of people are capable of manipulation or permanent remodelling is open to question. If the aim is to deal with organization-wide obstacles to strategic change, then an inspection of its political character could be of use. The opportunity is all the more attractive when a leading scholar is convinced that the problems of strategic change are in many instances attributable to failings in developing political will and expertise (Pfeffer 1992: 7).

The reluctance of managers to accept power as a positive feature is understandable when politics is commonly equated with failure or a dysfunctional organization. Put simply, power is the ability to influence the behaviour of others in order to secure preferred outcomes. The difficulty for many managers is in detecting the operation of such patterns of influence and making use of the many associated subtleties which may help or inhibit strategic change. Interest groups or temporary coalitions of individuals crystallize around the main topics found within change processes. The groupings exhibit differing preferences and compete with one another for resources, giving rise to shifting balances of power. It is during strategic change that power relations are at their fullest expression as the chances to secure improved outcomes are more apparent. The opportunities for organizations to engage in such relationships and shape the outcomes are considerable.

The experience of Pearl Assurance in the mid-1990s is instructive, not least in the candour with which its managing director, Richard Surface, explains his approach to the politics of strategic change. Market share was falling as the product range grew too complex and the regulator questioned the quality of the sales process. What is striking is the way the MD overhauled management structures, cut back costs, and halved the product range. He based his action on a political assessment of the company. In short, he identified the power bases of the 'high flyers', the 'anxious', and the 'cynics and refuseniks'. The anxious were offered leadership, while he did not attempt to convert the refuseniks. He argued that it is impossible

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to bring all staff with you in a strategic change process. Instead 'coalitions' are needed, starting with those in pivotal jobs, enabling the anxious to follow and the cynics, if they wish, to step aside.

Since open accounts of power and change of this kind are thin on the ground, there are three aspects of the political dimension of strategic change which would repay the attention of change managers: the sources of power, the relevance of external power relations, and the hidden elements of politics.

The conventional wisdom centres on the notions of resource, position, personal, or expert power. These types are based on the ability to control information or access to resources and the advantage of possessing skills or attributes which are in short supply and therefore non-substitutable. The identification of such people, singly or collectively, and the appreciation of their advantages is crucial information which should inform the calculations of any change manager. Conversely, entrusting key parts of a strategic change process to a colleague who did not enjoy robust lines of information, supply, or support should not happen. Furthermore, possession of a source of power by itself is insufficient. What counts is how that potential is used in the change process. In the shifting sands of power relations within that process, those who should be dependent on an expert group (such as computing) can still enhance their position. Channelling information from outside in order to secure your position in the change process is one example.

The external sphere is, in turn, a second aspect of power and deserves separate attention. Dependency is the primary consideration when organizations decide how far they should comply with the demands of outside stakeholders. The relationship is commonly one of a mutual influence process. More importantly, strategic changes will routinely require the cooperation of these stakeholders and even threaten the balance of that process. Those who are adept at resolving the difficulties which result—sometimes called 'boundary spanners'—are able to enjoy some of the strongest versions of power in relation to change projects. Liaison engineers in the engineering and mining industries who have technological knowledge but also deal with suppliers, collaborators, and regulators, often acquire these advantages.

The third area is the more elusive and concerns the way legitimacy is established. In spite of the way politics is equated with overt conflict in organizations, research shows that such disruption is not necessary for the operation of power. It is possible therefore to shape strategic processes by the unobtrusive establishment of procedures, rules, and symbols. In addition, the likelihood of a conducive reception for even extreme changes can be increased by, for instance, the prior construction of key terminology, the establishment of the expertise of key figures, and the development of a language which already embodies some of the core values and aspirations required by the strategic change in question. The skill becomes one of managing meaning as a precursor to the exercise of influence.

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Overall, the intention is not to suggest the impossibility of managing strategic change. Rather, the aim has been to highlight some of the more difficult problems which organizations face and to point out some of the more imaginative responses which the field has produced. It also acts as an antidote to the impression given inadvertently by some writers that the accumulated wisdom of the field has in some way diminished the scale of the difficulties of strategic change. Nothing could be further from the truth.

25.6 The Future

The future of the subject of managing strategic change will be dominated by a set of puzzles. The evolution of organizational and market forms will produce new problems to be solved. Meanwhile, the growth of the specialism will call for a reorientation of how to conceive of the main conceptual frameworks and how to apply them.

25.6.1 New Forms, New Contexts

The shifts in organizational forms which have already begun pose major questions for strategic change analysts. The issue is all the more pointed given that most of the main theories and constructs discussed in the previous sections emerged against a backdrop of the dominant form of large corporations. While such forms will continue to provide abundant change problems to be solved, the growth in alternative types will take centre stage. Microelectronics and communications technology is leading to the disintegration of conventional organization structures. Those previously linked to a single company as, for example, staff, suppliers, or competitors, may now find themselves linked in smaller, possibly project-based ventures or SMEs. Moreover, whilst conventional multi-divisional or matrix organizations may have been in existence for decades, the new forms appear to have much shorter incarnations. It is alleged that the typical Silicon Valley start-up changes form eighteen times in the first year of its existence. Managing such changes will require new approaches.

If the boundaries of organizations have become more porous and the new forms which have resulted look by traditional standards 'disorganized', is the phenomenon a global one? As researchers pursue the answer, a curious paradox has resulted. Although the conventional corporate form is challenged in the West by the changes

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just outlined, it still remains the preferred unit of analysis for those who study international business. How large Western and other businesses seek to manage themselves in pursuit of global operations and efficiencies will continue to exercise the minds of strategic change scholars. Yet the experiences and outcomes arising from the transition from managed to free-market economies in Eastern Europe and Asia, for instance, raise the opportunity for studying fresh solutions to the difficulties of implementation. They may also offer sources of innovation relevant to each stage of the change process.

25.6.2 Fresh Perspectives

Academics who are already responding to these phenomena provide some clues as to the future direction of the subject of strategic change. Two instances which are instructive are hyper-competition and complexity theory. Hyper-competition refers to the disruption of existing markets by fast-moving firms who succeed through rapid product innovation and aggressive price and competence-based approaches. Such companies are feeding off the demand by consumers for higher quality but at lower prices, the use of information technology to enter markets, and the collapse of entry barriers to markets following alterations in government policy. The challenge for managing strategic change is profound. Long-term planning becomes even more difficult and sustaining notions of 'vision' is equally questionable. Current wisdom on strategic change has adapted to the need of how to manage a transformation; it has yet to engage with the consequences of fragmented and random competitive shocks which accompany hyper-competition.

In a broadly similar way, adherents of complexity theory have been taking seriously the unpredictability of the internal workings of organizations. The core idea behind the theory is that complex systems, such as organizations, find order within themselves but in unpredictable and haphazard ways. In addition, it is argued that small, localized adjustments trigger sequences of events which have major implications for the entire organization. Managing strategic change may become more reliant on identifying the appropriate 'sense points' for managerial intervention in order to trigger positive change. The example of the 'zero tolerance' policy on petty crime at local level in New York (by William Bratton, police commissioner in the mid-1990s) and its impact on criminality across the city, is a case in point.

Whatever direction the subject of strategic change moves in, and in spite of what new theories are drawn on for assistance, one thing is clear: adopting a singular stance will not be sufficient. Looking at the growth of the subject, those who wrestle with the difficulties of managing strategic change would be forgiven for expecting an assessment of which approach is the most effective or superior. What is more

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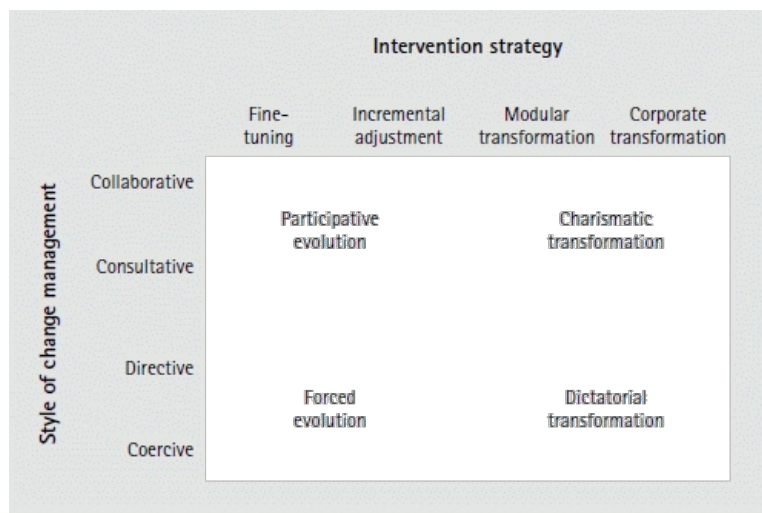


Fig. 25.8 Strategic change matrix

likely in the future is a continuation of the attempt to link the various perspectives offered by strategic change writers. One example is given in Figure 25.8. The idea behind the matrix is to consider styles of change management against a range of intervention strategies (reflecting the categories discussed in Section 25.3). What becomes clear is the breadth of choices available from even this simple grid. It is this type of approach, where a single business becomes comfortable with mobilizing different techniques to match varying circumstances, which will be more suited to the conditions of hyper-competition. The same must be true for analysts. They should be able to adopt a multi-lens view, deploying combinations of theories and concepts which are able to cope with the existence of more than one

type of strategic change process within a single organization over time. Managers and academics alike will have to become at the very least ambidextrous, if not multi-skilled.

25.7 Summary

This chapter has considered the problem of managing strategic change from a variety of standpoints, in order to do justice to its contemporary relevance and its character as a mature field of enquiry. It is apparent that managers continue to

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regard strategic change as an area fraught with problems, notwithstanding the rhetoric on some book covers which would seem to indicate otherwise. In order to provide helpful ties between those who research the subject and those who learn by doing, the chapter has attempted to establish four main positions.

The first concerns the longevity of the specialism. What emerges is a subject which has grown over a period of some forty years. In order to engage fully with it one has to appreciate not only its mixed origins but also the different disciplines involved. It is imperative to locate individual authors in their contexts in order to understand their emphases and, above all, to be in a position to make critical use of their insights and to recognize their emphases. The second position established in the chapter relates to the need to reflect on the language of change. Many experts on strategic change are guilty of under-using the full spread of concepts at their disposal. Both practitioners and scholars alike can benefit from employing the distinctions which are required to appreciate the full continuum between transformational change at one extreme and continuity, or the status quo, at the other. The third core feature of the chapter relates to the process view of change. A process perspective has become the bedrock of some of the most notable examinations of strategic change. The aim here was to, in part, celebrate those achievements but also to warn against false impressions of step-like inevitability. Consequently, the fourth objective has been to illustrate some of the enduring problems of managing strategic change and their solutions.

In the light of its continuing relevance and ability to attract attention from commentators of all kinds, the future for the subject is promising. How far that promise is delivered will depend on the extent to which new theories (derived from the social sciences and beyond) are generated to meet the circumstances confronting corporate and less orthodox organizational forms. The ability to ally with those working on related subjects, such as innovation, leading change and project management, will be an additional requirement and of mutual benefit.

References

- Barney, J. B. (1997). *Gaining and Sustaining Competitive Advantage*. Reading, Mass.: Addison-Wesley.
- Beckhard, R., and Harris, R. (1987). *Organizational Transitions: Managing Complex Change*. Reading, Mass.: Addison-Wesley.
- Bourgeois, L. J. (1996). *Strategic Management from Concept to Implementation*. Fort Worth: Dryden.
- Chandler, A. (1962). *Strategy and Structure*. Boston: MIT Press.
- Dunphy, S., and Stace, D. (1994). *Beyond the Boundaries*. Roseville, NSW: McGraw-Hill.
- Hickson, D., Butler, R., Gray, D., Mallory, G., and Wilson, D. (1986). *Top Decisions: Strategic Decision-Making in Organizations*. Oxford: Blackwell.

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- Hill, C., and Jones, G. (1998). *Strategic Management: An Integrated Approach (4th edn.)*. New York: Houghton Mifflin.
- Kanter, R. (1990). *The Change Masters: Corporate Entrepreneurs at Work*. London: Unwin.
- Kinsley Lord (1992). *Making Change Happen: Lessons from Leading Firms*. London.
- Lewin, K. (1947). 'Frontiers in Group Dynamics'. *Human Relations*, 1/1: 5–41.
- Mckelvey, B., and Aldrich, H. (1983). 'Population, Natural Selection, and Applied Organizational Science'. *Administrative Science Quarterly*, 28: 101–28. [Link](#)
- March, J., and Olsen, J. (1976). *Ambiguity and Choice in Organisations*. Bergen: Universitetsforlaget.
- Mintzberg, H. (1978). 'Patterns in Strategy Formation'. *Management Science*, 24: 934–48. [Link](#)

- Muller, R. (1985). 'Crisis Management'. *Long Range Planning*, 18/5: 38–48. [Link](#)
- Nadler, D., and Tushman, M. (1988). 'What Makes for Magic Leadership'. *Fortune*, 6 June: 115–16.
- Pascale, R. T. (1990). *Managing on the Edge*. London: Viking.
- Peters, T., and Waterman, R. (1982). *In Search of Excellence: Lessons from America's Best Run Companies*. New York: Harper & Row.
- Pettigrew, A. (1977). 'Strategy Formulation as a Political Process'. *International Studies of Management and Organisation*, 7/2: 78–87.
- and Whipp, R. (1991). *Managing Change for Competitive Success*. Oxford: Blackwell.
- Pfeffer, J. (1992). *Managing with Power*. Boston: Harvard Business School Press.
- Porter, M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Quinn, J. (1980). *Strategies for Change: Logical Incrementalism*. Homewood, Ill.: Irwin.
- Schein, E. (1985). *Organisational Culture and Leadership*. San Francisco: Jossey-Bass.
- Starbuck, W., Greve, A., and Hedberg, B. (1988). 'Responding to Crisis', in J. Quinn, H. Mintzberg, and R. James, *The Strategy Process*. London: Prentice-Hall, 687–97.
- Trice, H., and Beyer, J. (1986). 'The Concept of Charisma', in *Research in Organisational Behaviour*, Vol. 8. Greenwich, Conn.: JAI Press, 118–64.
- Van de Ven, A., and Scott-Poole, M. (1987). 'Paradoxical Requirements for a Theory of Organizational Change'. Working paper 58/Sept: 1–83. Strategic Management Research Center, University of Minnesota.
- Wilson, D. (1992). *A Strategy for Change: Concepts and Controversies in the Management of Change*. London: International Thompson.
- Wolfe, R. (1994). 'Organizational Innovation: Review, Critique and Suggested Research Directions'. *Journal of Management Studies*, 31/3: 405–31. [Link](#)

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26 Turnarounds

Peter McKiernan

Things do change. The only question is that since things are deteriorating so quickly, will society and man's habits change quickly enough?

(Isaac Asimov)

26.1 Introduction

THE objectives of this chapter are to explain the process of corporate turnaround, to develop a six-stage model within the turnaround process, to analyse the behaviour of senior management during decline and crisis, to analyse the strategic options for companies in crisis, and to explore the renewal of organizations through the lens of complexity theory and learning systems.

Corporate¹

¹ The majority of the academic and practical work on turnaround has been accomplished in the corporate, profit-centred arena. This chapter follows that focus yet is aware that many of the more generic issues can be applied to public sector organizational woes.

cemeteries are littered with collapsed organizations. This biological and physical debris often reflects an instinctive avoidance of change, despite the sharpest early warning signals of impending disaster. Organizations, with man at their cognitive centre, have a limited capacity for change. As Toffler said, when this is overwhelmed, the capacity is in future shock. Shock stuns the senses and confuses the corporate mind. Reactions suffer, response is limited and often of inappropriate design, critical opportunities are missed, and death becomes inevitable.

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All organizations endure periods of deteriorating absolute or relative performance. But they don't all die. A judicious strategy, sensible and sensitive leadership, and a capacity for change can often lead to a TURNAROUND in fortunes. But this is a complex and risky world where generic treatments of individual circumstances can lead to ineffective solutions. Each remedy is normally custom-built to take account of particular contextual and cultural conditions. Contextually, the cause may be external, lying in the competitive domain of industry structure or market segment. Culturally, firms are, in Penrose's words, 'unique bundles of resources'. Each one has an individual configuration of human and physical assets bound together by common views, habits, values, and learning systems. Within, the internal causes can be hidden from view and, when viewed, can be ignored. This is a complex and risky world in which to operate. To understand it, the environments coupled with the organization must together be the unit of analysis. The cognition of the senior management team (or dominant coalition) must become the key to analysing behaviour patterns and the treatments must become individual in both content and implementation.

This is an important aspect of our chapter. There is much work elsewhere that focuses on the financial and financing aspects of corporate turnaround (e.g. Slatter and Lovett 1999). This chapter complements these approaches by focusing on the behavioural aspects of the turnaround process. Moreover, it does not attempt to be a guidebook of 'how to' turnaround a company.²

² Readers who wish to consult this literature are directed to the narrative style in the John Harvey Jones coverage of the 'Trouble-shooters', the consultant's guide by Goldston (1992) or the implementation framework in Slatter and Lovett (1999: 99).

On the contrary, it aims to give the reader a deeper understanding of the managerial and organizational processes that underpin the turnaround phenomenon.

To reduce the complexity involved in this world, we utilize a linear stage process. This reduction should not be allowed to obscure the drama, emotions, and diffi- culties involved in reality. Its linearity should not conceal the simultaneous activities enacted in practice and the stages should not lead to robotic diagnostic activity or the proffering of automatic prescriptions to any individual case.

Researchers have identified two main stages in the turnaround process, retrenchment and recovery. First, when the predicament of the organization has been identified and managers are inspired to take action, they tend to retrench or cut back to a manageable core of operations to stem the decline. They catch their breath by buying time and doing what they know best. Second, there usually follows a recovery phase, where organizations take the appropriate and specific actions that return them to previous positions of security. For this chapter, we follow this lead and adopt a six-stage process (see Fig. 26.1) that incorporates these two stages as follows: Causes, Triggers, Diagnostics, *Retrenchment*, *Recovery*, and Renewal.

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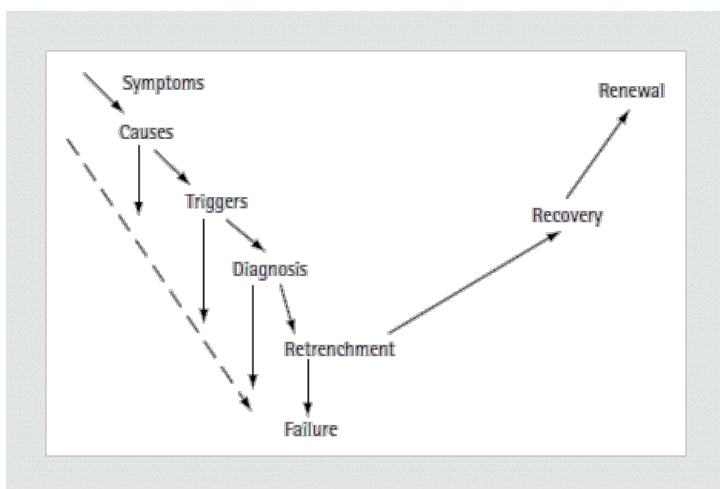


Fig. 26.1 Six stages of turnaround

26.1.1 Causes Stage

Causes of decline are usually described in turnaround literature as common, immediately identifiable internal and external issues such as poor financial control, poor management, and the collapse of key markets. We distinguish between these causes, which we refer to as secondary causes, and a deeper, more fundamental malaise that is related to organizational learning. We refer to these issues as primary causes of decline. The latter have received little attention in theory or practice.

26.1.2 Triggers Stage

Triggering represents the very stimulation of the activity necessary for change to occur. Triggers are needed to activate both a diagnostic process and a call for action. This usually results in a retrenchment phase. However, the complicated political and psychological context of the triggering stage has rendered it a difficult area to research with traditional tools or approaches. Without stimulation however, little diagnosis or action is taken. Hence, we see it as a crucial stage in the process.

26.1.3 Diagnostics Stage

Secondary causes of decline are intuitively and explicitly incorporated into turnaround theory. The theory is shallower in (a) its exposition of symptoms and in

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(b) the articulation of the link between symptoms and causes. This link involves the process of diagnosis by senior management and/or their advisers. Hence, we feel that a separate diagnostic stage is necessary due to the significance of good early warning signals and diagnostic processes in informing appropriate action.

26.1.6 Renewal Stage

Renewal is the completion phase of the process. At the end of the recovery stage, the organization has returned to levels of performance it enjoyed prior to decline. However, we feel that such a return to prior levels is a necessary but not a sufficient condition for a good turnaround process. Such a process should return the organization to a level of performance better than that prior to decline and towards one with greater prosperity and outlook. Such a recovery could be regarded as sustainable. This might be termed a 'genuine turnaround'.³

³ Slatter (1984) has identified a number of recovery types, including such a sustainable category: (1) no-hopers; (2) short-term survivors; (3) mere survivors; (4) sustainable recoverers.

In this case, an organization's ability to renew itself through continuous learning would be the sufficient condition and represent an additional stage in the process. With the constant learning in renewal, the lessons of a past deterioration in performance should not be forgotten. The learning loop would then be complete.

This chapter is structured along the lines of the six stages in the turnaround process. First, though, the nature and scope of corporate decline are considered as a background.

26.2 Corporate Decline

26.2.1 Definition of Decline

Initially, it is useful to distinguish between organizational downsizing and corporate decline. The former is an *intentional* strategic attempt by the firm's executives to adjust organizational size, structure, and scope in the face of diminishing market demand, industry contraction, or supplier overcapacity. The latter is an *unintentional*

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contraction of the strategic discretion⁴

⁴ Discretion in this context refers to the extent of control that managers have over issues and/or resources. The argument in this section owes much to my colleague Urs Neumair.

of the firm's executives. This will act as our working definition for this chapter.

Discretion pertains to both external and internal factors. Externally, these relate to the structural characteristics of the industry (pace Porter's five forces) and its resource mobility. Other general environmental factors, e.g. political, economic, societal and cultural, technological, legal, and environmental, play a strong role as they influence strategy and operations singly and conjointly. Internally, factors relate to an organization's resource endowment. Discretion depends on the extent to which an organization owns, has access to, uses, and controls the resource base at its disposal.

These resources can be grouped (after Barney 1991) into physical, human, and organizational capital. Managerial discretion varies over each resource and over time. In positive growth phases, executives will have an increasing say in the way things are or should be. In periods of negative growth, discretion contracts as executives lose control over common elements at first and crucial ones later. When all control is lost, then the firm is broken up or allowed to die.

This view of discretion is anchored in the resource-based perspective in strategic management. But the amount of discretion granted to managers by other perspectives in the field differs greatly. Population ecology theory gives executives little control over external or internal factors. Drawing on Darwin's theory of natural selection with its emphasis on births and deaths, it argues that executives have no discretion as organizations are resistant to change and inert. On the other hand, many strategy scholars (e.g. Ansoff, Chandler, and Porter) together with practitioners and consultants argue that, because discretion is abundantly available in all firms, it does not justify separate analysis. They would rather develop tools and techniques to optimize its use in a competitive arena.

The definition of decline adopted here occupies the middle ground between these two extreme views.

26.2.2 Concepts of Decline

Various concepts of decline are highlighted in the literature. These break into four main groups:

- (1) decline as a deterioration in resources or stock variables (e.g. personnel, assets, equity, management size, or other variables measured at one point in time);
- (2) decline as a deterioration in performance or flow variables (e.g. profits, sales, cash flow, productivity, net income, or other variables that are measured over a period of time).

The sets in (1) and (2) above are easy to operationalize through accessible financial ratios and their analysis leads to logical and comparable results. In many studies, the

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two sets are combined. Much of the turnaround research uses this data to measure corporate demise. However, its convenience in application is countered by the inherent measurement error due to the window-dressing of accounts, especially in troubled companies. Hence, more detailed studies have paid attention to:

- (3) decline as a deteriorating ability to adapt to changing external and internal pressures;
- (4) decline as a stage in the organizational life cycle.

The sets in (3) and (4) above place emphasis on behaviour and adaptability in the strategic process of turnaround and so suit the stage-based model well. Clearly comprehensive studies will pay attention to the full set (1–4) in their design.

We now turn our attention to the stages, taking them in a logical and linear order. In reality, some firms in trouble may skip a stage or some stages may occur in parallel. Our arrangement here is mainly for pedagogic purposes.

26.2.3 Symptoms of Decline

Poor performance happens to most organizations. For some, it is a temporary hitch and the strength of their underlying resources and strategy will eventually return them to prosperity. For others, it could represent the early symptoms of a deeper malaise to follow. Some will receive the messages, take action early, and probably recover well. Others will hesitate, perhaps ignore the symptoms and continue into a downward spiral. The deeper and more severe this spiral becomes, then the more incisive and radical the treatment required. If resources are not large or strong enough to endure the treatment, then collapse and failure become inevitable. So the longer symptoms are misread or ignored, the greater the probability of a funeral.

This downward process raises a number of significant issues. First, the role and behaviour of the top management team throughout the decline phase becomes a prime focus of study. In particular, we concentrate on their reaction to signals of ill health, their subsequent decision-making processes, their capacity for groupthink, their deflection of blame, and the resoluteness of their actions. An understanding of this managerial behaviour is necessary to fully grasp both turnaround theory and practice. Hence, we develop this component in Section 26.4.2. Second, the role of the early symptoms of poor performance in the diagnostic process and the distinction between symptoms and actual causes of decline. Third, the separation of actual causes into primary and secondary categories to inform the procedure of any consequent, purposeful action.

26.2.4 Symptom Categories

The symptoms of decline are different from its causes. Because both symptoms and causes are numerous and because their complexity increases as the spiral develops,

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this distinction is not always obvious. But it is essential if actions are to be correctly matched to actual causes. Even the experts can be confused: 'Assessing the state of a consumer product, leisure company, service organisation or retailer from a consumer standpoint can fail to uncover the underlying *symptoms that have caused* the problem to develop' (Goldston 1992, emphasis added). Symptoms reflect rather than cause problems initially. They are a sign or indication of the existence of a problem; they may accompany it and serve as evidence of it. Such traces give clues as to what may be wrong in the environment/organization and should guide us to effective treatments. The best analogy is in medicine where high blood pressures and temperatures are symptoms of an illness and accompany it. Doctors who treat the symptoms alone will get poor results.

In organizations, the symptoms may be detected in performance measures like financial ratios. But care must be taken in their interpretation. For instance, a falling profit to sales ratio could be the symptom of a variety of supply and demand side problems and is most likely to be a combination of both. Hence, managers who respond with haste and without systematic analysis to any crisis will end up treating the symptom(s) while the underlying problem(s) continues to erode the resource base or the market position. This makes any consequent recovery action more difficult to implement. Common symptoms are presented in Table 26.1. These are grouped by managerial discretion over the resource category and so signal a potential decrease in discretion over the resources concerned. They are not exhaustive but representative. Many have been witnessed in the not-for-profit as well as the profit sectors. Note, however, that healthy companies who have strong, counterbalancing growth features could display the same symptoms. Again, a comprehensive diagnostic process will help managers to discriminate between the two. We include a separate diagnostics stage at Section 26.5 below.

26.2.4.1 Public Symptoms

The symptoms relating to 'financial' resources are relatively easy to measure and so are widely available. They are the ones immediately witnessed and interpreted in the non-specialist, public domain. Academic observers have noted that external stakeholders usually see only such symptoms in the early phases of decline. A cautious management, opaque financial reporting, and clever advisers can deliberately obscure the underlying problems and their severity. Meanwhile, the top management team may or may not be aware of the meaning of these early warning signals. But, cautioned to protect their share price or external credibility, they craft their explanations with care and deliver them with confidence. This behaviour effectively creates a division between those who know the full story and those who do not. The latter could be both external stakeholders and/or other managers within the firm. Even at the most senior level, the dominant coalition may keep key managers out of the information circle for political reasons. Slatter and Lovett (1999) refer to this as

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Table 26.1 Symptoms of corporate decline

Physical	Managerial	Behavioural	Financial
Old plant and equipment	Managerial paralysis	Culture of cynicism and fatalism	Decreasing: profit, sales, liquidity and dividends etc.
Problematic access to raw materials	High turnover of good employees	Increase in red tape	Window dressing of accounting information
Repeated failure of product launches	High absenteeism	Retreat internally	Increase debts
Obsolete or hopeless products	Employees withdraw from communal activities	Distorted language and existence of taboo words	Deteriorating gearing, shareholder value
Lack of investment in new technology	High levels of managerial stress	Problems ignored	Public refinancing
Worsening terms of trade	Embarrassing loss of CEO	Reason for problems blamed on others	Raising new funds to fund losses
Major disaster	Emergency board meetings; board conflict	Key executives economical with the truth in public	Financial restructuring plans
	Lack of leadership	No sense of urgency	Breach of banking covenants
	Loss of credibility of senior staff	Lack of strategy	Post-acquisition integration poor
		Declining levels of service	Worsening terms of trade
		Fear	Litigation

Sources: Developed from Grinyer, Mayes, McKiernan (1988), Slatter and Lovett (1999) and Neumair (1998).

the 'reality gap'; the difference between the performance reported and actual performance. We seek to explain this further in Section 26.4.2 below.

Hence the communication of the symptoms is not a simple, one-way 'sender-message-receiver' process. It is one capable of message and manipulation. A useful analogy emerges from the field of marketing communications and consumer behaviour. This is portrayed in Figure 26.2.

Here, the communications model is a two-way one between the dominant coalition and other parties. Before the symptom message is sent, it has to be encoded (a) in a form of words, figures, images, and pictures to present it in the best light possible. However, two factors can then distort the clarity of the original message.

end p.766

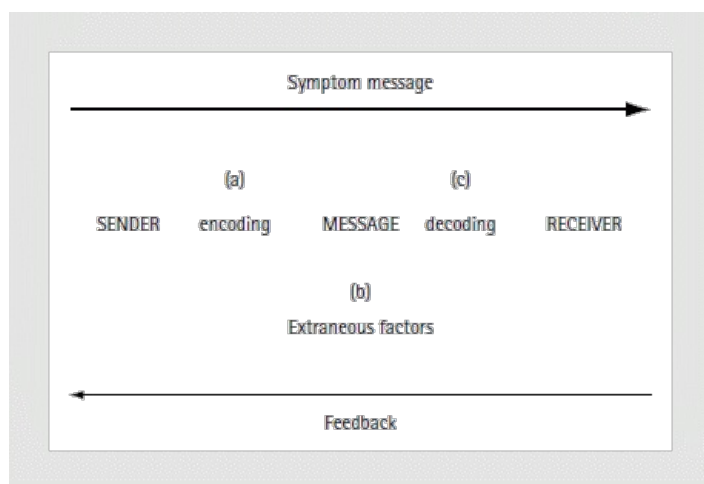


Fig. 26.2 A full marketing communications model

First, there are extraneous factors (b) that can distort the message. For example, the knee-jerk reaction of an influential corporate commentator can reach the receiver before the message and so influence its interpretation. Second, each receiver has a unique

psychological profile in use for decoding (c) the message. This, coupled with differential knowledge of the company's affairs, can mean that all recipients do not receive the original message in the same way. Nor is it interpreted in the same way. Hence, the public and private feedback to the company will be varied. In addition, if the encoding has been successful, it will not flood the company with heated and worried responses. The intention is to cap the symptoms and prevent their public exposure from damaging the organization unnecessarily at this stage.

26.2.4.2 Failure Prediction

Some researchers have used such publicly available information to try to predict the chances of firms failing altogether. The best known is the work by Altaian (1971) who used equations made up of suitably weighted financial ratios to capture the probability of firm solvency. Other researchers have argued that failure can be seen up to five years ahead using such methods, but Altman says two years is a better period. Altman focused on three external and five internal predictors:

External

- change in GNP
Failure rates seem to rise at the same time, or just before, a fall in GNP.
- stock market performance
- money supply
Failure rates seem to move at virtually the same time as the latter two.

We note that Altman's research was conducted in the United States and so may not be generalizable using such macroeconomic variables elsewhere.

end p.767

Internal

- working capital/total assets (X1)
- retained earnings/total assets (X2)
- current profits before interest and tax/total assets (X3)
- market value of equity and preferred stock/total liabilities (X4)
- sales/total assets (X5)

These internal variables all contribute to the dependent variable Z (a company's propensity to fail) as follows:

$$Z = 1.2(X1) + 1.4(X2) + 3.3(X3) + 0.6(X4) + 1.0(X5)$$

A Z score below 1.81 denoted that the company was failing while one higher than 3.0 denoted continued viability. Altman's results were 95 per cent accurate one year prior to bankruptcy and 72 per cent accurate two years prior to the event.

Clearly Altman's early warning system is based on the same public data that can be subjected to massage and manipulation before it is released. Such a process may well disguise the internal problems by yielding a higher than actual Z score. Despite this, Altman's work does provide the pioneering foundations for early warning signals.

26.2.4.3 Private Symptoms

Symptoms of decline pertaining to the other two resource categories in Table 26.1, 'human' and 'organizational' capital, are more difficult to measure. They are also more likely to be part of internal reporting systems thus giving top management some discretion on their dissemination. They will not be easy to identify or confirm by external observers. They will differ by industry sector. Moreover, as each organization has a unique culture or unique combination of layers of culture, they will tend to be company-specific. This makes them more difficult for any external observer to generalize from or to compare with indicators from other companies. There is an irony here, as these difficult to measure, externally unobservable symptoms are likely to be more closely related to actual causes of decline than the public symptoms above.

26.3 Stage One: Causes

Causes are antecedents that are followed by a certain phenomenon. They are the necessary and sufficient conditions that produce a direct effect. They maybe the root of a problem singly or in multiples. They can also exacerbate an existing problem.

end p.768

Much research on turnaround has been occupied by the identification of the main occurring causes, e.g. poor management, poor financial

control, poor product-market positioning, big projects that failed. These 'popular' reasons we will call secondary causes of decline. We distinguish them from their underlying primary causes, which we argue are due to dysfunctions in the corporate learning system. The two sets are illustrated in the model in Figure 26.3. On the one hand, this shows the direction of a good diagnostic process from the trace of observable symptoms to the learning dysfunctions. On the other, it shows the causal direction from primary, through secondary causes to the public and private symptoms.

26.3.1 Secondary Causes of Decline

The majority of turnaround observers have concentrated their efforts on secondary causes of decline. From their work a number of general points emerge:

- Secondary causes of decline are a combination of external and internal factors.
- The majority of secondary causes can be found inside the organization.
- Decline is due to multiple secondary causes.
- There is an automatic tendency to trace all secondary causes back to poor management.

The last point is important for diagnostic reasons. Management is, after all, the ultimate arbiter of a firm's market position and resource base. Poor decisions, inaction, inadequate antennae for the detection of environmental signals are all attributes that could have been done better by existing management. But, to many analysts, this is a convenient reaction to any situation. It rarely provides them with sufficient data to make a proper diagnosis. If they were to believe it, their instinctive solution

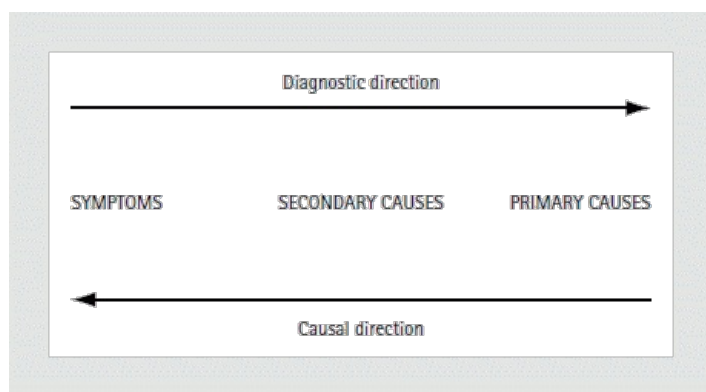


Fig. 26.3 Decline chain factors

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would be to replace the existing management team. This runs the risk of throwing out innocent parties who maybe needed in any attempted turnaround. Moreover, it could enable the main problem to go unnoticed elsewhere. The behaviour of management teams during the decline phase will be discussed in Section 26.4.2.

The main secondary causes of decline are outlined in Table 26.2. They are broken down by Financial (largely internal), Demand (largely but not entirely external), and Managerial. Some elements could clearly be incorporated into others, e.g. excess plant capacity and R&D overspend into high cost structure. Here, their individual importance merits a separate mention.

26.3.1.1 Financial

A frequently occurring cause is lack of financial control. In particular, this denotes the absence of (especially in small firms) or inadequacy of (especially in larger firms) cash flow forecasts, costing systems, and budgetary control.

26.3.1.2 Demand

Two points are worthy of note. First, a distinction needs to be made between a declining trend in demand and a cyclical effect. The former is characterized by

Table 26.2 Main secondary causes of decline

Financial	Demand	Managerial
Poor financial control	Adverse shifts in commodity prices	Poor management
Acquisitions	Changes in market demand	Management unresponsive to change

Poor financial policy	Increased competition	Management problems
Big projects fail	Marketing problems	Poor strategy formulation
Over-trading	Depressed prices	Poor strategy implementation
Poor accounting information	Recessions	Strategic oscillation
Poor gearing	Aggressive market share building	Strike activity
High cost structure	Import penetration	
Excess plant capacity	Technological innovation	
R&D overspend	Bad luck	
Poor working capital management	Government policy	

Sources: Grinyer, Mayes, and McKiernan (1988), Slatter and Lovett (1999), Argenti (1976), Robbins and Pearce (1994a).

end p.770

changes in product technology, new substitutes, demographic changes, changes in income and its distribution, and political changes. The latter may be part of a general economic and business cycle that will have an impact on all businesses, despite their sector. Second, managerial behaviour in crisis has a natural tendency to blame the cause of decline on external factors so that reputations remain untarnished. To many, import penetration and depressed prices sound like a cover-up for lack of cost competitiveness—an internal malaise over which management has some control.

26.3.1.3 Managerial

Perhaps the most frequent cause of decline cited in the numerous studies since the 1960s is poor management. In particular, this emphasizes inability and inaction at the CEO level. But, as the table shows, good strategic management of any organization is critical to its survival, especially in the modern era. It seems that Sun Zi was right when he said, over 4,000 years ago in the 'Art of War', that: 'Weak Leadership can wreck the soundest strategy. While forceful execution of even a poor plan can often lead to victory'

26.3.2 Primary Causes of Decline

Organizational learning plays a central role in distinguishing failing from surviving companies and lies beneath superior performance. The level of organizational knowledge shapes the way that companies perform. This knowledge has been accumulated through years of learning in the sector and more broadly. This learning directly or indirectly influences the behaviour of the top management team. This learning can fix behaviour in a certain direction, especially if it results from reinforced practice or experience. Luthans (1980) describes learning as 'a relatively permanent change in behaviour that results from reinforced practice or experience'.

26.3.2.1 Defects in the Learning Process

Primary causes of decline are the result of defects in the corporate learning process. Learning becomes important when conditions begin to change. Hence, companies with good learning routines will normally be expected to survive, and some to prosper, all other things being equal. Companies with defective routines are more likely to struggle and so to drift down the spiral of decline. The reasons will be different for different firms and are likely to interact in powerful combinations. The main ones are:

• The Rigidity of Mindsets

Past experiences can lead management to encode learning into powerful routines that then influence future behaviour patterns. These shared understandings develop

end p.771

and come to take on a life of their own, constraining subsequent action. They often translate into organizational paradigms.

Kuhn (1970) has argued that belief systems evolve slowly over time. When they become dominant within an organization, they are difficult to change. In many companies, fast change can only occur to such dominant beliefs through strong external pressures (e.g. failure of a main market due to the rapid introduction and acceptance of a new technology) or the autocratic directions of a new CEO. Such change can be described as revolutionary.

These strong paradigms can turn organizations into closed systems. A paradigmatic view of the world embodies procedures for inquiring about that world and stores its observations about that world in a system of 'rules and routines'. These will be referred to consciously or unconsciously for running the business and guiding major strategic decision-making, and will be reinforced as more observations are

made. So they possess an internal consistency that makes evolutionary change difficult, if not theoretically impossible. Such a view can represent the construction of the 'only possible world' and, as Golding (1980) says: 'The whole transaction has a tendency to become self-fulfilling.... The particular is made general and becomes accepted to the extent that the access to the totality of the larger world, in the shape of possible alternative views, is blocked. Perspectives tend to become ossified.' The paradigm attracts like-minded spirits who, in turn, limit its vision. Their observations are interpreted through the paradigm, forcing them to see only what fits it and so the process of reinforcement perpetuates. Parameters of the real world that do not fit are ignored or rejected, so environmental adaptation is severely limited. The organization is set to ossify. As the mindset becomes more rigid, learning can become an obsolete activity, feared for the potential challenges to the system that it may engender.

• The Inadequacies of Youth

Many young companies fail early. About 25 per cent die before their fourth year and up to 66 per cent of all failures are companies below eight years old. Stinchcombe (1965) offers four reasons for this 'liability of newness':

1. Configuration of role and skills. A new business has to learn much from its environment to configure its learning routines successfully. Its capacity to learn is limited at this stage, especially if the company is in a new industry where the benchmark recipe has not been fully developed.
2. Trust. To survive and develop, new businesses must develop trusting relationships among strangers. This is a tough task when it is young and unknown, and when it may still be trying to develop these internally. Both elements (1) and (2) above will be strongly influenced by the circumstances at birth. The learning capacity of the firm will be influenced by the template formed by the founding entrepreneur and his/her particular characteristics and ideologies;

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and by environmental factors and cultural norms dominant at the time, e.g. location, equity, technology. Neumair (1998) has referred to these as *congenital defects* that are imprinted permanently on the learning routines from the start. The organization can easily 'lock-in' to a faulty recipe unknowingly at an early stage in its life.

3. Interconnection within the routines. The pressure to prime the cash flow with trade at the start of a corporate life occupies the minds of the new dominant coalition. Working out new roles and the relationship between them, new incentive schemes, and a new control and planning framework require a good deal of careful time and attention. This is rarely given in any systematic way. So the establishment of reliable routines lags behind both individual and corporate behaviour in the young firm. Such behaviour will tend to be non-routine, uncontrolled, and emergent.
4. Environmental connections. Ties to the environment are limited in the formative years of a firm's life. The new entity needs to build, from scratch, a whole network of interrelationships with its main stakeholders. This is costly and time consuming.

Elements (3) and (4) above can lead to new firms jumping from one activity to the other in some random way due to their urgent need for revenues. But an overemphasis on inherent flexibility could lead to a flawed search for effective operating routines through constant iteration, combination, and experimentation. A strong routine may fail to emerge, as rules are continuously re-created. The increased risk associated with decline could also trigger hyperactivity and an enhanced risk-taking mode so reinforcing the young firm's dilemma. Hence, a reliable set of rules fails to emerge.

• The Overconfidence of Middle Age

Middle-aged companies can suffer from two distinct but associated problems:

1. Psychology of past success. Success breeds confidence. It instils into organizations a belief that what they are doing and how they are doing it is right. The internal structures and systems that led to success are reinforced as 'the' template for the way of doing things. The organization becomes biased in its selection of rules and procedures towards those that best reflect its successful ones from the past. These 'super rules' and 'super routines' become organizationally legalized. An organization can then 'lock in' to a certain direction of development. Its momentum becomes predictable. If the world remains the same, then success should continue. Even if it changes slightly, then some success within the old systems should be possible. However, significant environmental changes over time and/or sudden impacts (e.g. changes in technology or government legislation) may demand a different set of routines to those that had been successful in the past. A design gap will emerge

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between the newly demanded routines and the 'locked in' routines, based on past success. Miller (1990) has called this the Icarus paradox, where the seeds of destruction lie in the recipe for success. The company is locked in both in terms of the configuration of its 'physical', 'human', and 'organizational' assets and, more importantly, by the inflexibility of the mindsets amid the dominant coalition.

Any search for new rules to cope with the changes will be within an already strong paradigm. The tendency will be for the company to amplify its strengths. It will replace strong rules with even stronger ones, so reinforcing its behaviour. Consequently, weak rules remain untouched and the system only improves at the margin. Experimentation that can lead to the discovery of new rules and routines that are more appropriate to the new conditions are limited by cognition. Managerial discretion will wane as the design gap widens and if the company does not 'unlearn', it will eventually fail.

2. Blind focus and hubris. Corporate development can follow a process of 'punctuated equilibrium' where a period of relative stability is followed by one of dysfunctional change. During stability, rules and routines are developed and if successful, reinforced in an incremental way. During revolutionary times, the existing framework is broken and strategy, structure, power, and control change discontinuously. The phase of stability produces a consistency of rules and routines. Incremental improvements are made in them as some learning takes place. But this learning is based on an incremental improvement (e.g. Kaizen) or adjustment to what exists. With this process, a whole rule and routine set can converge over time to a much-reduced set based upon what works best. The system can become homogeneous as 'rules and routines' are pared back to the minimum. This 'finetuning' can have disastrous consequences. For example, in the run up to the Challenger disaster in 1986, NASA had systematically rendered their supplier system 'less redundant, more efficient, cheaper and more versatile' (Starbuck and Milliken 1988). Some parts were continuously reduced in size and weight, and some removed completely. This happened to the O-rings in the solid rocket booster that caused Challenger to disintegrate:

Success breeds confidence and fantasy... managers usually attribute success to themselves and not to luck... [they] grow more confident of their own abilities... and skills, and of their organisation's existing programmes and procedures. The most important lesson to learn from the Challenger disaster is not that some managers made the wrong decisions or that some engineers did not understand adequately how O-rings worked; the most important lesson is that fine tuning makes failures likely. (Starbuck and Milliken 1988)

This convergence process can lead to a focus that is too fine for learning to occur easily. It is usually reinforced when managers think alike within the same paradigm. Disagreement is not heard, ways of improving or broadening the system are not seen, alternative options are not considered, and blind faith is placed in the security

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of the system. Janis (1972) termed this phenomenon 'groupthink'. Here, groups of managers reinforce each other's prejudices, emphasize the positives, play down criticism, and, in so doing, reinforce the convergence process.

Managers' past success imbues them with a decision-making arrogance. They can become incautious. Overfamiliarity and overconfidence mix a dangerous managerial cocktail that can lead to a 'hubris effect', forcing them (perhaps against their better judgement) to take on big projects that the system is not capable of coping with. And, as we know from the discussion above, big projects are one of the key secondary causes of failure.

• The Docility of Old Age

The youthful and middle-aged corporations above take many actions and may still fail. But companies can also fail due to inactivity or lethargy. This can occur in two ways:

1. Environmental myopia. Poor environmental scanning systems mean that current and future opportunities go unnoticed by some firms. There is a response gap between soft signals of opportunities and threats and the company's ability to detect them and convert them into action. This process can be made worse by a myopic mindset that registers and processes information selectively according to some rigid view of the world. Long-serving executives, who have enjoyed the slowly diminishing returns of previously successful recipes, can be amongst the guiltiest at this practice. Their conservatism could also lead them to a risk averse behaviour in strategic and operating decisions, so investments in new products and processes fail to materialize. This behaviour will be accentuated if the company is spiralling down towards crisis. Here, proactive risk-taking is seen as a strategy of the very last resort.
2. Processing inertia. When signals have been detected and action demanded, the existing set of rules and procedures may be so cumbersome as to delay the effectiveness of the action. This could be due to too many rules and long decisionmaking routines akin to 'red tape' in the machine bureaucracy. These delay decisions and isolate the market driven urgency through excessive paperwork and committee structures. Final outcomes are likely to be much-diluted offerings, adding to the 'too little too late' excuses.

Hence, primary causes of decline can be seen as problems associated with the organization's learning routines. Faults that might have crept into the system for monitoring and processing environmental signals into new behaviours and actions. This is a much-neglected part of the study of THURNAROUND. The literature has traditionally focused on symptoms and secondary causes. It has struggled to sort out even this distinction. Yet, what distinguishes surviving from failing companies is the ability to process signals profitably, i.e. the ability to continuously learn. We return to this issue in the final stage of turnaround-renewal.

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26.4 Stage Two: Triggers

Companies in decline can drift. They may conduct some kind of formal diagnostic process. They may know intuitively what is wrong. However, powerful routines that control behaviour can prevent early action taking place. There could exist some hope that the secondary cause is external, that the decline is cyclical, that it is a temporary blip on the long run performance track. Managers survive in hope that the organization will recover within its existing set of rules and routines. To change them would be a painful process and they are, after all, what the top managers are most comfortable with and know best.

There is thus a stickiness or inertia that can contribute to the crisis. Fombrun (1992) remarks: 'What we loosely term fact consists of powerful forces that obscure management's ability to discern looming threats and so to implement needed changes. These inertial forces derive from crystallized features of firms and the business communities in which they operate.' Close integration of internal capabilities, controls, and culture can dictate conduct and restrict corporate action. Moreover, close ties in business communities with strong recipes can build a momentum, locking the firm into a particular trajectory. The more money, time, and egos that are invested in this trajectory, the greater the resistance to change that develops within the company. When crisis looms, managers naturally hold onto what is familiar. Their existing 'rules and routines' act as a comfort zone, artificially (and temporarily) protecting them from necessary change.

26.4.1 Triggering Change

To achieve change against a strongly held rule and routine system frequently requires a significant jolt. Such a jolt, or trigger for action, can be internal or external to the company. Internally, senior management can recognize the inability of its current system to cope with the situation at hand. Externally, outside stakeholders can exert pressure for immediate change. Yet, there is a more subtle psychological process at work here that is linked to pride and the fear of failure.

We argue that change is triggered in companies because actual or anticipated performance falls below a level that is regarded as acceptable. However, we find in declining companies that managers adjust their expectations of what constitutes acceptable performance downwards, thus postponing the point at which they decide to take action. Hence, inertia and readjustment add to the corporate demise. So, counter to much of the turnaround literature, companies just do not take action in the decline phase. Something must happen that triggers the action. This triggering could be because the continuous decline in actual or relative

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performance passes through or falls significantly below an existing level of aspiration. This is illustrated in Figure 26.4.

This aspiration level (after Cyert and March 1963, see Figure 26.4) is an acceptable level of performance that could be influenced by senior management, given their experiences of past performance, or other members of the dominant coalition. Other influences could be by the performances of peer organizations or the perceptions of external stakeholders like banks or the investment analysts of financial institutions. It is rarely quantified in a formal sense. Agents have probably internalized it and instinctively know the level.

The aspiration level can have a strong psychological effect. Companies respond to its presence differently. We illustrate such responses in Figure 26.5. For some (Case A), the very threat of approaching the aspiration level is enough to trigger recovery action. Where inertia is stronger, companies have to pass through it and lie below it before the effect is felt strong enough to trigger action (Case C). Finally, where very strong inertia is present, the company may have to lie significantly below the aspiration level for some time before action is taken (Case D). Clearly, early responders increase their chance of a successful recovery, while late changers stand to risk most of all.

The simple models shown in Figures 26.4 and 26.5 fail to capture adequately the dynamics of change. First, they suggest that the changes undertaken to generate change have immediate benefits and are costless. In practice, neither is true. The actions taken to achieve recovery will tax the deteriorating financial performance even more, causing it to dip below the downward trend before it is reversed

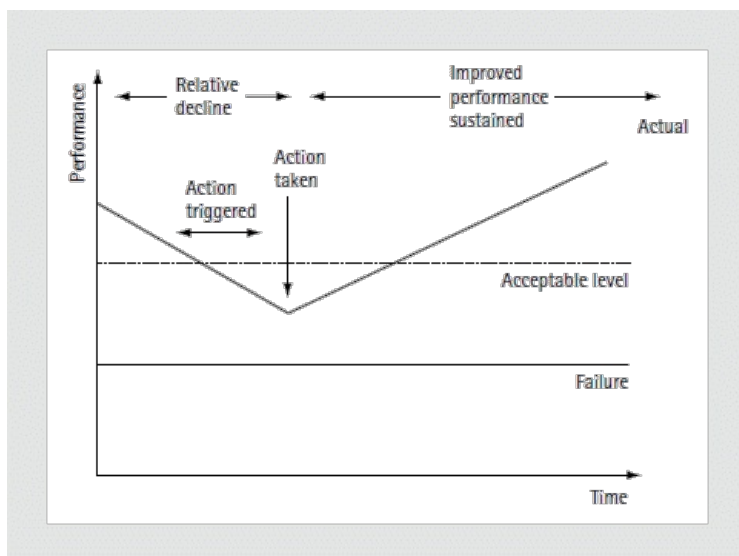


Fig. 26.4 Triggering action

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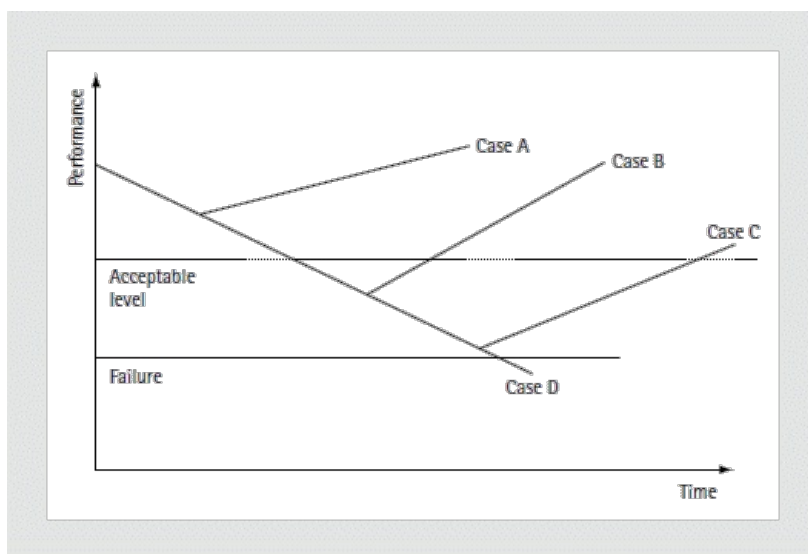


Fig. 26.5 Reactions to declining performance

(Figure 26.6). Again, this emphasizes the dangers of leaving change too late. Second, the graphical representation of the aspiration level suggests that it is a constant phenomenon, unaffected by the deteriorating performance or any recovery actions. In practice, it is affected by both. Managers tend to readjust their expectations of performance as decline continues and so aspiration levels can be marked downwards. Alternatively, actions taken, for example the replacement of the CEO, can lift morale and heighten expectations of what performance could be. These effects are shown in Figure 26.7.

So triggers are needed to provide the initial break from existing systems and force action to happen. They are present in all phases of corporate decline (e.g. Case A, Case C), but the case of the turnaround at the point of real crisis (Case D) is a special one. Such organizations have fallen well below what is deemed to be an acceptable level of performance for them. Unless it takes action soon, it will perish. The forces have built up to a climax as the company approached, passed through, and fell below its aspiration level. It is useful to explore the behaviour of management while the firm cascades down this trajectory.

26.4.2 Degrees of Triggering

There is a danger in treating all corporate recoveries, or even all thurnaround, as homogeneous events from which to generalize. Not all recoveries from decline are

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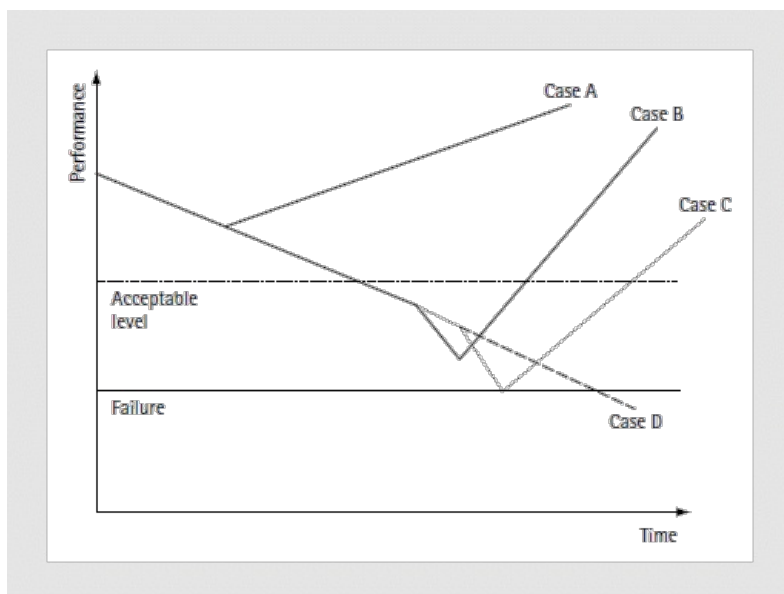


Fig. 26.6 The dangers from delay

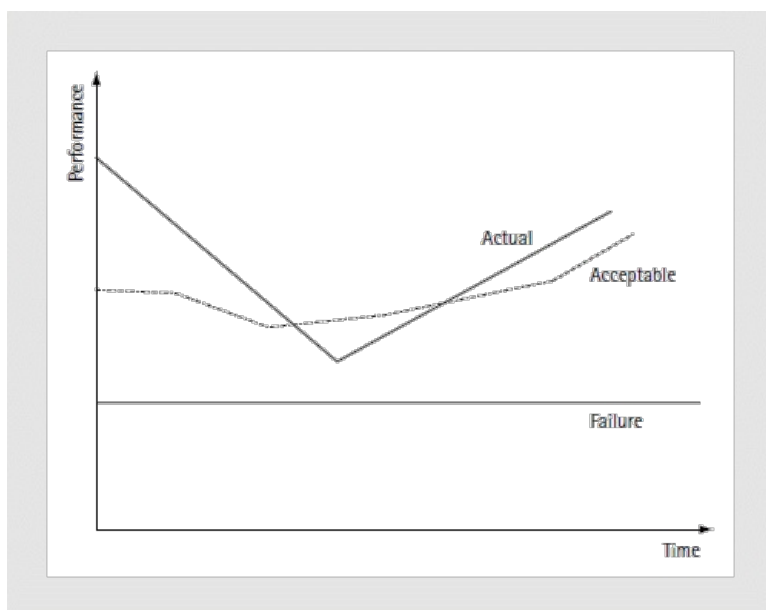


Fig. 26.7 Actual performance affects acceptability

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the same. As Figure 26.5 showed, there are differences in timing and so in the preparedness for recovery. Moreover, if we explore further, we find subtle differences in steepness of decline and recovery trajectories and in strategy content and process at each phase. So we can develop the general graphic in Figure 26.6 with research results, and move away from sterile cases to more memorable descriptions. In so doing, we discover that companies need different degrees of triggering to stimulate their activities. Let us describe three recovery trajectories around the aspiration level:

• Visionaries

Here, actual performance is slightly above the acceptable level. Such organizations are likely to be anticipatory rather than reactive and may have already tried to make incremental operational or strategic changes to halt the decline. These changes have all been accomplished within the existing rules and routines. The very thought that performance will fall below the aspiration level provides a sufficient trigger to induce effective action. Moreover, as they were reasonably healthy companies that had fallen, temporarily, on hard times, with a fall in share price, the lower value of the company can expose it to takeover threats. Nothing seems to motivate managers more to make changes than pressure from potential predators and the thought of job rationalization should they fall victim to the prey.

Such organizations are some way off the failure zone and impending bankruptcy and have time to consider their actions. They are likely to contain proactive managers whose self-esteem and pride will be seriously damaged by thoughts of poor performance. They are still highly motivated and open to change. Moreover, cash flows are likely to be positive and this will facilitate efforts at redirection.

Our research ⁵

⁵ See McKiernan (1992).

shows that such companies are likely to be smaller firms in consumer markets with no divorce of share ownership from management control. Hence, decision-making is quick and direct. They had, on average, fewer secondary causes of decline and the most significant of these was poor marketing. Internal triggers, especially the role of visionary or anticipatory management teams, were largely responsible for the appropriate remedies. The primary change made was a repositioning of the product market focus. Low exit barriers and fragmented industry contexts helped this. Moreover, such visionaries faced a much lower rate of decline than the other groups below. The sum of these internal and external conditions allowed them to make complete reorientations in product market scope. They made broader searches for new opportunities and generally raised their game. Such dramatic changes are rare and companies need the time and conditions in their favour to bring them about.

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• Laggards

These organizations have continued to decline past the point where actual performance breaches the aspiration level. This breach triggers alarm signals in the boardrooms. There is usually a delay in reacting to the situation. Perhaps information systems are not well developed or annual accounting systems, of the type relied on by many small and medium-sized firms, do not provide timely notification of actual performance. Management teams are likely to be mixes of the proactive and reactive, but are generally competent. There is a traditional, sequential reaction to perceived distress.

Secondary causes of decline were more numerous and less operational than for the visionaries. Poor marketing was less of a problem than major market decline. Many industries had matured with concomitant problems of excess capacity and tighter markets. Risky projects that went wrong through poor control exacerbated the plight of some of these companies. Triggers for action were all internal. Management perceived the gravity of its problems in a reactive way as actual performance breached the aspiration level. Notably, there was an absence of a threatened takeover as an external stimulus. A result consistent with the unattractive positions of these firms in mature markets.

Notably, their market declines were sharper than those of the visionary group and they had larger market shares and faced higher exit barriers. But, industry concentration was low, suggesting lower competitor reaction to major organizational changes. Their recovery was generally based on cost-cutting and rationalization within their current set of rules and routines. They became more centralized, providing a trimmed down head office with greater decision-making power. These teams planned the succession of their own CEO where this was deemed to be a part of the solution. Only in isolated cases was there any evidence of strategic reorientations. Because the financial impact of rationalization and cost-cutting is fairly immediate, these laggards enjoyed steeper recovery rates than the visionaries.

• Ostriches

These organizations face the real crisis that is stimulated by the threat of extinction. For these ostriches, with their heads in the sand, senior management had not perceived a problem while actual performance declined towards the aspiration level or even after having passed through it. Corporate drift ensued within the comfort of established 'rules and routines'. Even the passing through and exiting below acceptable performance did not provide a big enough shock to shift existing behaviour. The companies continued to drift down to the failure zone. We noted a number of behavioural characteristics during this phase. First, at the beginning of the phase, top management soon entered into denial and refused to accept the existence of a major problem. Second, drift continued to a point where it was obvious to both internal and external observers that a problem had occurred. Senior management then blamed this on other parties or extraneous forces beyond

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management's control, e.g. import penetration, high interest rates. This could have been true, but it was highly unlikely. The secondary cause was probably internal, perhaps a lack of investment in competitive production facilities. The reason for the diversion of blame was to protect reputations. Third, as the situation worsened, the firm's leaders began to make public statements that played hard and fast with the truth, perhaps with an intention to shore up the share price and fend off any takeover threat. In addition, accounting information systems were often manipulated to project a better performance through window-dressing. Effectively, senior management was still in denial. Fourth, good managers started to leave. Their moral and ethical principles had been taken to the limit. They saw no future in the firm with present management at the helm and preferred to satisfy their career aspirations elsewhere. This was a crucial juncture for two reasons. First, these were generally youthful managers and just the kind of resourceful and gifted folk required to turn the organization around. Second, in our research, many of these disaffected parties went to work for competitors, so strengthening the opposition just when the host company was at its weakest. Moreover, they went with full knowledge of the customer lists and competence knowledge of the host business.

Meantime, such companies continued to drift close to the point of no return. In the end, external stakeholders had had enough. They had lost faith in the present management team and saw no capacity or willingness to change. Bankers, financial institutions, creditors, and others began to exert pressure for replacement of the top team, especially the CEO. At this point, the very poor performance had triggered the external agents, *not the incumbent management*, into taking action.

In our research, organizations at this late stage faced very sharp declines in performance. Unfortunately, the high exit barriers which confronted them prevented immediate divestment. Any improvements in performance were made manifestly more difficult by the high levels of industry concentration which tended to induce competitor infighting for market share as the industry contracted. These ostriches faced multiple and more major structural problems than the visionaries or laggards. Major declines in their markets were compounded by failures of big projects (though big project failure also occurred in visionary companies, especially when they lacked experience of innovative technology). The major trigger was the threat of extinction made fiercer by predator presence.

In about half these cases though, external agents, including dissatisfied bankers or institutional shareholders, took dramatic action including the replacement of the CEO and other key directors in marketing and finance. Interestingly, in the rest of the sample, the existing senior management was forced by threat of extinction to break out of their traditional 'rules and routines' to enact recovery actions. In general, these involved strong efforts to retrench through rationalization, heavy cost-cutting, and closures. Firms took multiple actions in parallel. These were

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aimed at controlling the situation before strategic reorientation could be attempted. However, in some cases where time did not permit such a sequence, strategic measures were enacted simultaneously with operational ones. This was facilitated as decentralized companies took on a more centralized posture in keeping with the widely held belief that autocratic management style is more appropriate in crisis. Decisions could then be taken quickly and lines of command shortened so improving both communication and control.

These three examples serve to illustrate the dangers of treating recovering companies in decline as a homogeneous set. Even those in turnaround situations, faced with the ultimate challenge of extinction, can and do react in different ways. Besides the different 'rules and routines' that are unique to each company, another key reason for treating turnaround as heterogeneous are the various behavioural characteristics of senior management teams throughout decline and during real crisis. It is important to ask:

1. Why senior management teams, presumably experienced and talented, allow their organizations to spiral down the decline curve to the point of near extinction?
2. How do they react under the pressure and stress of real crisis at this point of near extinction?

26.4.3 Managerial Behaviour in Decline

Much of the literature on organizational decision-making and adaptation stems from the classic work by Cyert and March (1963). It is characterized by a limited, simple search in response to problems; uncertainty avoidance by disregarding unpredictable future impacts; concentration on short-term feedback and negotiated environments; the quasi solution of conflict by sequential attention to goals and local rationality; and the 'use of standard operating procedures and rules' for making decisions. We shall return to the latter notion when we discuss the renewal stage in Section 26.8 below.

These organizations adapt by changes in their aspiration levels—defined as critical values of corporate goals—and through the involvement of best practice rules. They 'devote little time to long run planning ... and rely heavily on traditional methods, general industrial practice and standard operating procedure for making decisions' (Cyert and March 1963). Such a description is well suited to the 'machine

bureaucracies' that operate in mature markets. Problems arise when they face turbulence, say, through the advent of new technology or a major competitive threat. Their historically determined structuration and distributions of power impede the major changes that are necessary in crises. Their systems represent years of investment in distilled knowledge and skills, in trading partners, in physical plant

end p.783

and equipment, in geographic location and operational systems. Change, then, is likely to be resisted.

This base model has been extended in three ways:

1. The addition of operationally related sets of beliefs or templates (Pondy 1984). These are cultural beliefs about 'how to do business' which are learned through time. In our research on turnaround over the years, we have often heard managers tell us to 'pin your ears back and listen, we have been running this business for 25 years this way, why should we change our style?' Such templates will act as hurdles to change.
2. The addition of a sequential search process. First, responses are delegated to functional areas for incremental operating solutions to be discharged. Second, if solutions do not occur, a wider search ensues leading to cost-cutting in politically vulnerable areas such as general overheads and staff. All this is accomplished within the present set of rules and beliefs. Difficulties must shift to crisis proportions before these are changed or broken. Such events usually lead to the replacement of the top management team, or at least the CEO. This introduces a new dominant coalition with a new set of rules and beliefs more suited to present circumstances.
3. The addition of a process of adaptation to higher learning rules. This is done in two parts. First, through the introduction of a recipe (after Spender 1979) denoting best practice within the industry. This evolves from a small number of firms, is copied more broadly, and becomes the best way of adaptation within the sector. The introduction of new recipes will be resisted to the point of crisis and a new top management with knowledge of it is put in place. Second, through the introduction of systematic, rational models of strategic planning, their indigenous environmental scanning systems, and adaptive structures.

With these developments, the original model can be extended to a sequential search process with higher-level learning rules. The model can then search for solutions at the operating level, move to the administrative level and the strategic level until it locates a solution. This widening search process accords with the natural inclinations of managers to stay within their normal operating patterns, beliefs, and rules (OBRs) as long as possible. This model is presented in Figure 26.8, where this sequential search is illustrated. We develop this model with reference to selforganizing systems and complexity theory in the renewal section at the end of the chapter.

Returning to the three recovery trajectories, we can see how the visionaries have the space and time to enact a full sequence of searches until an adequate solution is found. The laggards jump quickly to cost-cutting and tighter controls initially and then may proceed to strategic switching within the same OBR. Ostriches, however, need to break the mould.

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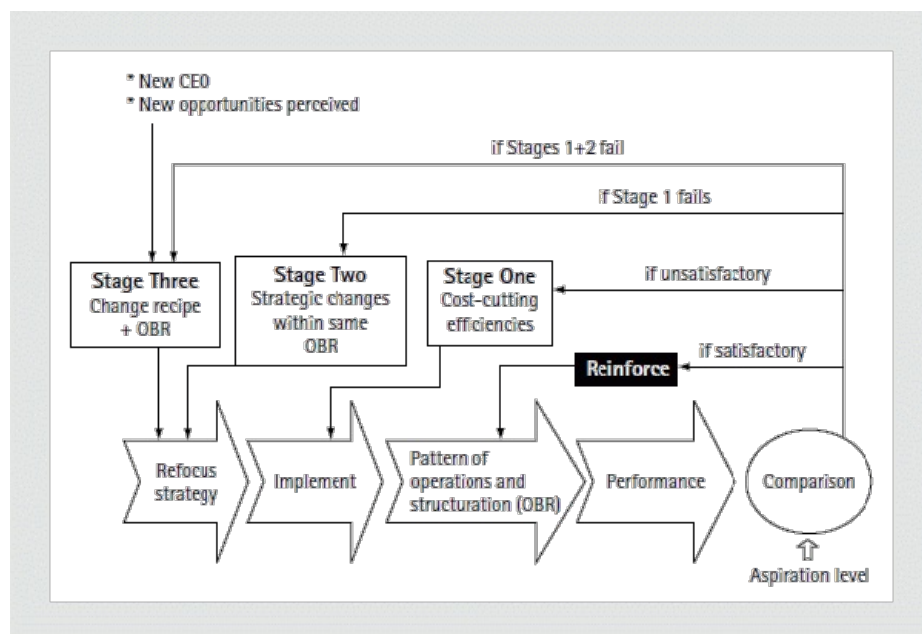


Fig. 26.8 The extended Cyert and March model(see Grinyer and McKiernan 1990 for a fuller version)

26.4.4 Breaking the Mould

The OBRs, as we have seen, can be a significant impediment to change. Great pressure from crisis is required to break the mould. At the heart of the model is the relationship between actual performance and aspiration levels. Performance that fails to meet aspiration levels will trigger a sequential search for solutions. This will begin with tighter control and cost-cutting. Any successes will lead to the adaptation of the OBRs and to their reinforcement. But, if there is no success and performance falls further below the aspiration level, the search widens to more strategic solutions. This may involve changes in the disposition of resources, in the range of products and/or in the markets served. Any changes at this stage are accomplished within the current OBRs. If this stage fails to find an adequate solution, performance will continue to decline so exerting greater pressure for change up to a crisis point. Here, either external or internal agents will dismantle the current way of doing business, smashing the OBRs, and introduce new processes. This action is likely to be both painful and dramatic. The ostrich heads have to be removed from the sand. Major surgery may be required to do this.

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26.4.5 Managerial Behaviour in Crisis

Response to crisis varies with the people involved and the type of crisis they face. Turnaround crisis for management can consist of surprise, short decision time, and a high threat to established values. All three can cause stress, increasingly as performance continues to fail. At first, some stress is good; it heightens the senses and can galvanize managers into creative thought and action. However, as the stress mounts beyond a certain point, anxiety can set in with its own deleterious effect on performance. Research⁶

⁶ Based on the work of Slatter (1984), Smock (1955), Milburn (1972), Weick (1995).

has suggested the following characteristics of such situations:

1. An increase in the volume of communications creates an information overload.
2. Management becomes selective in information searches.
3. Danger signals can be ignored as managers see and hear what they want to, conditioned by their own OBRs.
4. Decision-making becomes fragmented with more operational rather than strategic decisions.
5. Managerial tolerance of ambiguity is reduced.
6. The key decision-maker develops a dominant view of the world through which information is interpreted. This view is kept despite information calling it into question.
7. The dominant view may be a stereotype rather than one tuned into the subtleties of the current situation.
8. The personality characteristics of the decision-maker become emphasized, e.g. the anxious become more anxious.
9. There is a trend towards autocratic behaviour.
10. Time perspectives of management are reduced to the 'here and now' and the long term is forgotten.
11. Managers' ability to estimate the consequences of their decisions is impaired.
12. Problems requiring complex solutions are ignored in favour of simple solutions to simple problems.
13. Formal structures can collapse where rules of behaviour no longer seem adequate in the face of an enormous task.

Clearly, managers alter their behaviour, or have their behaviour altered by, crises. It is not always easy to predict how they might do this in any particular situation. The above list is only a guide. What seems to work in these situations is collective sensemaking, grounded in communication and trust. But, this has to be built up over a considerable period of time. The actions that will determine the success of later action occur long before decisions need to be made. Starkey (2000), appraising the work of Weick (1995), points out: 'successful decisions... depend upon the presence of adequate sense-making processes that can be activated appropriately. It is

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essential that this sense-making preparation takes place and that what is learnt is resilient under later pressure.' Unfortunately, the corporate world lags behind the military and the emergency services in taking time out for such preparation.

26.4.5 Triggering Action—Crisis-induced or Managerial Choice?

We have argued that actions for change are not timely. They are held up by the rigidity of internal OBRs. Triggers are necessary to force the action to occur. Our research has identified two stages in the triggering process. First, the gap between aspirations and actual performance grows either due to a fall in performance (as is the case here with declining firms), a rise in aspiration levels (due to a change in CEO, new blood, new markets, a takeover threat, etc.) or a combination of the two. This growing gap causes aspirations to rise within the firm and so creates a climate for change. A second phase kicks in when an event, or series of events, occurs against this climate that triggers change to take place. As we have seen in the Ostrich trajectory, this trigger can be internal when existing managers are galvanized into action by the immediate threat of extinction. Or externally, where creditors may call for extraordinary meetings or

predators see a decent set of assets badly managed and take an aggressive posture. The gap creates the climate for change that awaits the trigger or triggers for action.

In theory there could be many triggers for change. The main triggers ⁷

⁷ Our research (Grinyer, Mayes, and McKiernan 1988; McKiernan 1992) covered organizations close to the turnaround point but not always at this exact point of crisis.

we discovered were:

- intervention from external bodies
- change of ownership
- new CEO
- recognition by management of problems
- perception by management of new opportunities.

Our research (Grinyer, Mayes, and McKiernan 1988; McKiernan 1992) suggests that the nature of the secondary causes of decline make some triggers more likely to occur than others. From a further analysis of our triggers, we found the following:

- Only a worsening of general market conditions seems to be associated with external intervention.
- Threats of ownership change are associated with internal weaknesses including inflexible autocratic management, poor communication and vision, overly centralized control, poor financial control, high cost structures, poor quality, failed acquisition and big projects.

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- New CEOs are also associated with most of the internal weaknesses above, especially where these are attributable directly to weak internal management, e.g. large head offices and bureaucratic systems.
- Recognition of problems by existing management is only correlated with failed acquisitions. This is a serious indictment against existing management and could hardly have gone unnoticed in any internal review.

The results confirm that major pressure has to build before internal management chooses to change. Then, it may only be after a significant dent to pride. In the majority of cases and especially at the point of turnaround, the crisis induced by the widening gap between aspirations and actual performance is detected mainly by external parties that duly exert pressure for change.

26.5 Stage Three: Diagnostics

We have argued that action has to be triggered in declining companies due to different degrees of inertia. The first action to be triggered should be a careful but efficient diagnostic routine. The discussion of such adequate routines is scarce in the management literature. This may be due to its complexity in the turnaround context. Such a routine must concern itself with the complex relationship between symptoms, secondary causes, and primary causes of decline. We noted earlier (see Section 26.2.3) how symptoms present problems for the diagnostic process because of manipulative window-dressing practices, especially when trouble may be brewing. Secondary causes also present our corporate doctors with a quandary. First, they have to sort out the complicated interaction between symptoms and causes. Second, they have to isolate the key problem(s) from the complex interplay between the secondary causal variables themselves. The direction of cause and effect between them is not always obvious:

One might identify intense price competition... as a causal factor of decline... but is this the real cause or is it the firm's inferior cost position relative to its competitors that is the cause? If *this* is the cause, is it due to lack of market share, or to the firm's conservative financial policy of not investing in modern plant and equipment, or to both? If financial policy is to blame, what causes management to adopt such a policy?... In practice, a chain of inter-related causal factors and multiple causes can be identified in most situations. (Slatter 1984)

The identification of the main secondary causal factors requires both a comprehensive array of early warning signals and an excellent diagnostic procedure. The former emerges from a sound scanning system for environmental messages; a well designed management information system and a recognized control framework, e.g.

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a balanced scorecard. Guidance on good diagnostic procedures is, however, lacking in the turnaround literature. We suggest that corporate doctors and senior executives could borrow, and learn much, from their medical colleagues.

Research in the medical domain on diagnosis suggests that:

1. Diagnostic techniques differ among health experts. These differences are due to experience, area of specialism, and memory structures.

2. Diagnostic practice tends to follow either a critical or a biased style. The former is characterized by full awareness of detail, careful observations, consideration of ambiguous symptoms, and consciousness that the correct diagnosis is often other than the one initially judged most likely. The latter is characterized by little attention to detail, less careful observations, and over-interpretation of facts supporting the initial hypothesis.
3. The gathering of broader contextual information on the 'enabling conditions' surrounding the acquisition of the illness leads to a higher probability of a correct diagnosis. Such conditions could be age, gender, risk factors from work, behaviour, and hereditary taint.
4. Physicians seeking further information from the relatives of patients make a more accurate diagnosis and a better chance of effective implementation of treatment.
5. A generation of hypotheses based on the broader contextual information to support the sequential gathering of information at patient-physician contact lead to a high degree of accuracy in the diagnostic process.
6. Early information has an overwhelming effect on final diagnosis. The quick generation of hypotheses at the outset of a physician-patient encounter modulates the efficiency and accuracy of the diagnostic process.
7. Diagnostic algorithms exist for the detection of specific afflictions, e.g. urinary incontinence. These tend to follow a root-branch structure in response to yes-no questions.

If we translate the principles inherent in the above findings to the world of corporate decline, they suggest a diagnostic policy of:

- avoiding hasty decisions (2 and 6)
- adopting multiple perspectives (1 and 4)
- making broad initial information searches (2 and 3)
- considering ambiguous symptoms (2)
- generating multiple hypotheses (2, 3, and 5)
- developing diagnostic algorithms for reduction (7)
- testing for Type one⁸

⁸ Type one errors are committed when we reject a hypothesis that is true. Type two errors are committed when we accept a hypothesis when it is false.

and Type two errors (2).

Clearly such principles will be tailored to the particular situation, taking cognizance of prevailing externalities and internal cultures. Further, they are not likely to be a

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substitute for the experience generated by professional corporate doctors who have witnessed malaise in company after company and know what works where and when, if not why. But, the principles may guide internal teams towards a better diagnosis early so that the real secondary causes can get the treatment they need before crisis occurs. Moreover, managerial behaviour changes in these conditions where there is added stress and pressure. A simple framework may bring some calm to the storm by providing direction and guidance. Such a framework may even moderate any overconfidence in the professional consultant.

Early warning signals and a good diagnostic routine point the way for further action. Generally, companies retrench back to well-understood or most promising activities and reduce their activities in unrelated areas. However, there are various types of retrenchment policy and companies should adopt those that logically follow on from the discoveries brought about by their diagnostic routines.

26.6 Stage Four: Retrenchment

We note from our discussion on managerial behaviour in decline and crisis, together with our observations of reality in the Ostrich case, the natural tendency of firms to contract to what they know best when crisis hits. Simple, workable solutions to perceived simple problems. Autocratic management, tighter control, cost-cutting, and rationalization all seem to appear as first options. This is the process of retrenchment that has been noted widely in the literature. We must take care not to see this as a homogeneous response.

In our chapter introduction, we emphasized the importance of customizing the response to decline and crisis to individual firm conditions. Common sense tells us that any response to decline should be appropriate to purpose. So we should judiciously diagnose the secondary causes and respond carefully with great sensitivity to individual context. We now explore this issue in detail.

Early turnaround researchers relied on case-based research. A first group (see e.g. Hofer and Schendel 1978) argued that effective turnaround policies should focus on the declining firm's core problems. These could be either operational (not internally efficient) or strategic (poor relative market position). If the cause of decline is inefficient implementation of a sound strategy, then the appropriate solution should focus on increasing efficiency through cost rationalization and revenue generation policies. Equally, if the main problem is poor strategic positioning, then the appropriate solution is strategic reorientation. Managers could get it

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wrong by responding to the efficiency problems by changing strategy and the strategy problems by choosing belt-tightening policies internally.

A second group of researchers modelled decline on the sequential search and adaptation route described above (see, for instance, Hedberg, Nystrom, and Starbuck 1976). Here, historically induced inertia needs great pressure to shift managerial cognition from its comfort zone and induce action for change. So the route out of decline is a major realignment of strategy, structure, and belief systems.

From these two groups, we conclude that:

1. Strategic change⁹

⁹ It is interesting to note that large-scale studies (see e.g. Hambrick and Schecter 1983) that appeared throughout the 1980s and early 1990s, as opposed to the case-based theorists here, failed to find much support for the fact that strategic change was an integral part of a turnaround process. According to Barker and Duhaime (1997), this is due to poor sampling and over reliance on financial ratios and that, according to their research, strategic change is still a key variable in the process.

is central to the turnaround process but likely to be adaptive. Barker and Duhaime (1997) have shown that more strategic change is needed for firms in decline if:

- Their performance decline is steep (very poor performance creates pressure for change).
- External events aid recovery (e.g. economic upswing).
- Their industry is growing.

The roots of a firm's decline can lie in an industry's contraction or be based on firmspecific problems (Cameron, Sutton, and Whetten 1988). In the former, industry decline forces all firms to suffer and solutions are likely to lie in efficiency-seeking policies. In the latter, the industry can be stable or growing but the firm is declining. This suggests poor adaptation with solutions most likely to lie in strategic reorientation.

2. Because of inertia, strategic change will be difficult to implement. Research (see, for instance, the references in note 9) has shown that the extent of strategic change is greater when:

- There is a change of CEO.
- The firm has a diverse portfolio.
- The firm is large.
- The firm has little financial slack.

Taken together, (1) and (2) above suggest that strategic change is central to any turnaround strategy and that its level varies with individual conditions faced and their capacity to implement it. However, a natural reaction to decline is to quickly retrench following some homogeneous recipe. But, the research findings suggest a customized response. Hence, we have to explore retrenchment in more detail, questioning when it is the most efficient and effective response.

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26.6.1 When Is Retrenchment Appropriate?

Despite the powerful forces constraining strategic change in the rules and routines of the business, logic alone dictates that troubled companies should look to survival and the achievement of a positive cash flow first and foremost. This leads to the classic retrenchment activities of cost rationalization, liquidation, divestment, etc. Once a position of relative safety has been reached, management has to decide how to continue (Bibeault 1982). The choices are clear. Do they attempt recovery in their slimmed down form through some version of their previous strategy (efficiency response) or do they attempt to pursue growth and development with a new strategy (entrepreneurial response)? This logical process suggests the notion of stages in turnaround action with retrenchment preceding any consideration of strategic reorientation.

Retrenchment marks the initial response for firms in crisis situations. The primary objective of the cost and asset reduction exercises is to stabilize the performance decline. The results of this stage should be readily available to internal management and external stakeholders through financial ratios.

Researchers (Pearce and Robbins 1992)¹⁰

¹⁰ These results have been questioned (Barker and Mone 1994) who argue that retrenchment is a consequence of steep decline and not the cause of an increased performance, and that there is no performance difference between those that retrench and those that do not. However, the original authors (1994b) have pointed to methodological problems in Barker and Mone's study that casts some doubt on their findings.

have found that:

- Retrenchment is strongly related to turnaround success.

- For firms with very steep decline, both cost and asset retrenchments are necessary for a successful turnaround.
- Cost retrenchment (especially attacks on inventory and interest charges) was indispensable to success.
- Asset retrenchment kicks in when the savings from cost retrenchments fail to stem the decline.
- Firms that saw their main secondary causes of decline as external in origin tended to adopt entrepreneurial responses with success.
- Firms that saw their main secondary causes of decline as internal in origin tended to adopt efficiency responses with success.
- Firms with internal causes retrenched more than others and had more success.
- There is a significant relationship between retrenchment and performance regardless of the secondary cause.

26.6.2 Scale and Retrenchment

The talk of cost and asset reduction in the retrenchment stage is fine when larger firms are the focus of attention. They are likely to have numerous inefficiencies

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within internal systems ripe for cost rationalization and diversified product-market portfolios ripe for asset reduction. However, many smaller firms will not possess such opportunities by virtue of their scale. They are likely to have a much-restricted choice of options. However, research (Robbins and Pearce 1994a) has shown that they respond just as dramatically to economic downturns as their larger counterparts. The evidence suggests that:

- Smaller firms made many strategy responses to decline, chiefly in the areas of manufacturing, management, and organization systems and distinctive competencies.
- Firms showed no preference for efficiency responses over entrepreneurial responses.
- Response to decline was through specific functional strategies related to the main secondary causes.
- Retrenchment worked best as a platform for recovery.
- Entrepreneurial responses were less successful than efficiency-based ones, especially those that focused on finance and management activities.

26.6.3 Retrenchment Problems

Clearly, retrenchment is an important and established stage in a turnaround process. But attention has been drawn to the dangers of going too far down this route. A number of problems have been identified:

- Too much cost rationalization may sap employee morale.
- Too much cost rationalization may cause good managers, especially those with much needed marketing skills, to leave.
- Too much cost and asset retrenchment can be resisted by organizational inertia.

An associated phenomenon for firms in decline is a tendency to shift structures from organic to mechanistic. This is known as threat rigidity or mechanistic shift. This increase in organizational rigidity may restrict the organization's ability to be innovative in any recovery solution. Such changes may stifle entrepreneurial responses in particular. Research (Barker and Mone 1998) suggests that:

- Not all firms in turnaround situations react to crisis in this way.
- Mechanistic shifts occur mainly:
 - in smaller firms
 - in firms attempting recovery from low levels of liquidity
 - when a new CEO is introduced following the removal of the previous one by the board.
- Mechanistic shift severely restricts a firm's ability to make strategic changes.

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This section has confirmed the position of retrenchment as a separate stage in the process of organizational recovery. Moreover, it has used the research evidence to examine the subtle components of the stage, where it is more successful, how it fares in smaller firms, and what the problems of implementing the stage may be.

26.7 Stage Five: Recovery

Recovery represents that phase when the company has successfully negotiated any retrenchment, whether by cost reduction or cost and asset reduction, achieved stability, and is ready to make the decision to progress. Progression is by way of either efficiency or entrepreneurial recovery strategies. The former strategy is important when the main secondary causes of decline are internal. It usually consists of market penetration, segmentation, entry to new markets, acquisitions, and new product development. The latter is important

when the main causes of decline are external. It usually consists of liquidation, divestment, efforts to improve operational efficiency, product elimination, and labour rationalization. However, in reality, the choice between the two is not easy. Two sets of factors impinge on the decision:

1. Rigidity of the Current Operating Patterns, Beliefs, and Rules (OBR). We were concerned in the triggers section above with the rigidity of the firm's OBR. Research suggests that dramatic change away from a dominant OBR is a rare occurrence. At the point of stabilization, firms can change their strategies without a change in their OBRs or with an abolition of the old OBR and a fundamental change in ideology. Corporate reactions to decline show a strong tendency for the original OBR to survive in some form whatever the chosen recovery strategy. The process follows a well-trodden pathway. First, changes in strategy are less frequent than minor changes to existing portfolios after retrenchment, e.g. the addition of a better export drive to increase revenues. These are essentially strategic readaptations within the same OBRs rather than radical shifts in the way of doing business. Second, when strategic change occurred, it was more likely to be of the efficiency recovery type. Trading continued within the same OBR but with much trimmed down core business. Entrepreneurial recovery types were rare and their adoption may even have been delayed by the presence of a powerful existing OBR. When they did happen, they were accomplished mainly by acquisitions or by changes in CEO. In the case of acquisitions, organizations bought into new OBRs in the form of new human organizations, structuration, beliefs, conventions, operating plant, procedures, and networks of relationships of the new business into which they

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were entering. This is a more expedient route to adopting new OBRs. For many firms, it has the beauty of allowing the existing OBR to exist, while the new one is kept at 'arm's length' in a new unit or division. Hence, the new need not clash with the old. Over time, the two develop in parallel. The old learns from the new and slowly jettisons its ineffective parts through more divestment of units in which it is still dominant. This is a conservative route to changing the OBR.

The case of a change in CEO tends to be associated with the more radical, but rarer, action of smashing the old OBR completely. This attempt to engineer change from the inside is very painful and the casualties are high. Internal conflict and political games are to the fore. Yet, it is a realization that the old ways of doing business are simply inappropriate for the new era. As they will not or cannot change quickly, then their dissolution is necessary.

Overall, however, we find that old OBRs tend to be rigid, even at the point of stabilization and strategic choice. This can clearly constrain the ability or willingness to become more entrepreneurial and increase the chances of continuation under an efficiency strategy within the same OBR. The situation becomes more complex when we examine Figure 26.9. This shows the combination of recovery strategies and their relationship with the OBRs. Clearly, we expect a close relationship between the adoption of an efficiency strategy under the existing OBR. Equally, the promotion of an entrepreneurial strategy is more likely to come from a new OBR system. The difficulty for the turnaround doctor lies in the other two cells. First, we know that OBRs are rigid but the organization needs an entrepreneurial strategy. It is difficult to imagine that the old OBR could generate and support a new strategy of this type, but it happens. The results are less dramatic than with new OBRs and the trajectory tends to be uncertain and hesitant. Too much hesitation and there is a danger that the old OBR will wander back towards the more conservative efficiency strategy. This is, perhaps, the most dangerous case. Second, the adoption of a new OBR and the pursuance of an efficiency strategy are unusual but also quite thinkable. New manufacturing methods, slimmed down organizational structures, changes in the capital-labour ratio, new product variants would all benefit from new OBRs. Again, performance may not be so dramatic as a new-new relationship.

2. Other Contingent Factors. A number of other factors affect recovery strategy choice. These include:
 - Causes of decline. Multiple causes need multiple solutions. In practice, the actual number of generic recovery strategies a firm needs to employ is considerably greater than the actual number of causes of decline.¹¹

¹¹ Readers are referred to Ashby's 'Law of Requisite Variety' that notes that the chances of successfully dealing with change in the external environment are increased if systems have been used to change internally through appropriate coping mechanisms.

This is a kind of 'reverse synergy' here, peculiar to the turnaround situation. Implementation saps energy and drive and can delay the implementation of entrepreneurial strategies.

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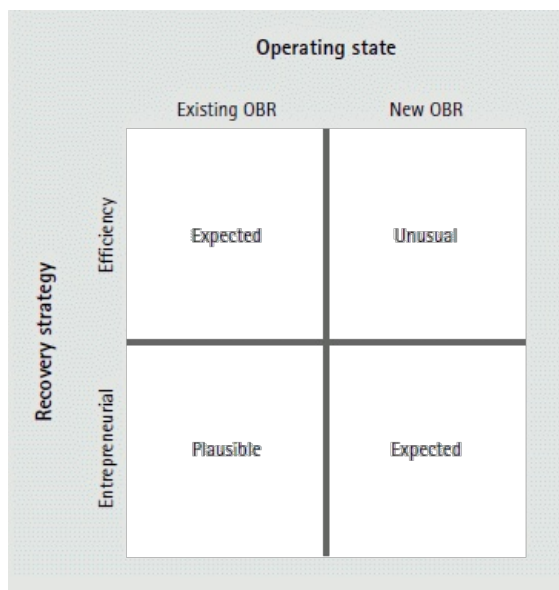


Fig. 26.9 Relationship between operating state and recovery state

- Severity of decline. The steeper the decline, the less the likelihood of spare financial resources sufficient to procure an entrepreneurial recovery.
- Attitudes of key stakeholders. These can act to dictate strategy choice, e.g. governments or banks, or to constrain strategy implementation, e.g. powerful trade unions.
- Industry characteristics. Generally, recovery in industries with high profit potential is higher than in one with low potential. In the former, the chances of opportunities for a successful entrepreneurial strategy are increased. In the latter, few firms will be expanding and there will be no new entrants. So opportunities for getting good prices for divested assets are fewer and such limited cash generation acts to constrain expansion under any recovery strategy. These characteristics can constrain or accelerate recovery strategies and a decent industry appraisal, using Porter's five structural forces analysis (among others, e.g. life cycle), will help sort out the best options.
- Firm's cost-price structure. Sales, volumes, and costs responses will be different in different firms due to their different breakeven points. Coupled with the state of the industry, strategy choices could favour either efficiency or entrepreneurial options.
- External events. Cyclical downturns, global recession, natural disasters, and political or military confrontations over which the company has no control can make the pursuit of any recovery strategy very difficult if not impossible.

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As with the diagnostic stage, a good analytical sense needs to be brought to bear on the decision between the two strategy options. In theory, it is straightforward and easy to generate as a set of hypotheses. In practice, the variables interact in a complex manner and make each situation unique. This calls for a customization of the recovery actions to a particular situation.

26.7.1 Generic Turnaround Strategies

Despite our comments above, we find a continual occurrence in the practical literature of 'generic' recovery strategies. In some cases, the authors accompany the lists with an appropriate note of caution. We argue that the adoption of generic recovery strategies, without due diagnosis and diligent analysis of each case, runs a high risk of failure through incompetent design and poor fit.

We have illustrated these generic recovery actions in Table 26.3, where a guide is also provided to indicate the types of conditions under which they might apply. The strategies follow the stages in the text for retrenchment and recovery. However, we have grouped two of them under a general heading due to their broader applicability and importance in any turnaround situation.

26.7.1.1 Restructure Leadership and Management

1. Leadership. Leadership has emerged as one of the critical elements of recovery. Not all thurnaround require a new CEO. But, as inadequate top management and the rigidity of OBRs are a major secondary cause of decline, they figure high on any listing. New CEOs bring a new vision, new strategies, new networks, new energy, and most important, new ways of doing things. In time, the latter will become the basis of new OBRs.

They are important symbolically. Internally, because they signal that change is inevitable and a new culture forthcoming as a 'de-freezing' of the old is taking place. Externally, because anxious stakeholders demand change to restore their confidence in the business. This confidence is needed to renegotiate debt, extend credit periods, and raise new capital for the recovery effort.

The type of leader is also important. Leadership traits differ at different stages of the business cycle. During start up and growth phases, an entrepreneurial style fits well. During maturity and early decline, we observe a more traditional approach to management, with plenty of bureaucracy in the system. Finally, under conditions of crisis and turnaround, there is a tendency for more autocracy. The abilities required here are very different from those needed under healthier trading conditions in the business cycle. These include strong leadership and motivational skills; powerful communication ability; flexibility; excellent diagnostic and analytical ability under time constraints; ability to work to a punishing schedule under duress;

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Table 26.3 'Generic' turnaround strategies

Strategy	Types of action	Suitable conditions
Retrenchment		
Cost reduction	<ul style="list-style-type: none"> • Reduce expenses • Stronger financial controls • Intensive efforts to reduce production costs 	<ul style="list-style-type: none"> • Internal causes • Rigid OBRs • Sales 60–80% of break-even • Late stage of decline
Asset redeployment	<ul style="list-style-type: none"> • Sell assets • Shutdown or relocate units • Debt reduction • Rights issues 	<ul style="list-style-type: none"> • Over-expansion/low capacity use • Sales 30–60% of break-even • Rapid technological change • Entry of new competitors • Decline steep • Late stage of decline • Cost reduction not enough
Recovery		
Selective product-market defensive	<ul style="list-style-type: none"> • Decrease marketing efforts • Divest products 	<ul style="list-style-type: none"> • Over-expansion • High capacity use
	Offensive	
	<ul style="list-style-type: none"> • Increase marketing efforts • Increase prices • Improve quality/service • Invest in new technology 	<ul style="list-style-type: none"> • External causes • Operating & strategic weaknesses • Early stage of decline
Repositioning	Defensive	
	<ul style="list-style-type: none"> • Niche • Market penetration • Decrease price • Divest products 	<ul style="list-style-type: none"> • Over-expansion • Improved short run profits • External causes • Rigid OBRs
	Offensive	
	<ul style="list-style-type: none"> • Diversification into new products 	<ul style="list-style-type: none"> • Major decline in market share • External causes face non-diversified firms
General		
Restructure leadership & management	<ul style="list-style-type: none"> • Replace CEO • Change top managers 	<ul style="list-style-type: none"> • Internal causes • Rigid OBRs • Need to diversify out of industry
Organisation/culture	<ul style="list-style-type: none"> • Use temporary structures • Change structure • De-centralise • Trim down head office • Alter culture 	<ul style="list-style-type: none"> • Control & communications problems • Facilitate re-positioning • Culture change • Structural change • Universal
Windfall gains	<ul style="list-style-type: none"> • Management pro-activity 	

Sources: Adapted by the author from Slatter (1984), Grinyer, Mayes, and McKiernan (1988), and Hoffman (1989).

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and fast implementation skills. Turnaround situations require CEOs to be 'hard and soft' at the same time. Hard, because change will be resisted and unpopular decisions will have to be made, e.g. labour rationalization. Soft because staff that remain need to be motivated and encouraged to play a part in a recovery effort. This is frequently when they are at their lowest ebb, having endured cutbacks under previous leadership regimes for months as the firm declined. Such CEOs are rare. They operate in a power culture and demand direct command and control, typically appropriate to the crisis in hand. They are often described as autocratic. Research (Mueller and Barker 1997) shows how the chances of obtaining a successful turnaround are greater when the CEO also chairs the Board, so increasing power to a virtual monopoly.

Such autocratic styles are necessary while the crisis lasts and until such a point as the organization is safe. Research (Pettigrew and Whipp 1991) shows that such autocratic styles have a sell-by date. They do not work effectively in healthier trading conditions. More democratic leadership styles have to follow once the company is on safe ground. There are a number of reasons for this:

- Staff and management grow tired of the lack of inclusiveness in the autocratic process and by the 'rule of fear' and pressure builds for change.
- Turnaround CEOs are turned on by crisis and lose interest when the company is safe.
- Turnaround CEOs are good at the hatchet part of the process but not so good at repositioning and making progress in growing markets.
- In turnaround situations, internal processes lag behind the numerous actions that have to be taken to stem the crisis so rebuilding is needed.

2. Management. Besides a new CEO, companies need the benefit of broader thinking and vision making among senior management. Moreover, if it is necessary to break the rigidity of the old OBR, other members of the previous dominant coalition will need to be replaced. In many cases, this applies to the functional executive positions of marketing, finance, and R&D. A new team at the top with a committed, positive 'bias for action' and one that stimulates innovative, entrepreneurial behaviour is likely to send out all the right messages to stakeholders and employees. Moreover, having a greater outside interest and control on the Board also increases the effectiveness of a new management team.

Clearly, the severity of the particular situation and its causes will determine whether such a wholesale removal of management is necessary at all. There will be many instances when the experience and knowledge of existing managers will be a boost to the turnaround effort. Any new CEO will have to work alongside and strongly motivate and reward this loyalty through share option or profit-sharing schemes.

Whatever changes are made at this level, it seems clear that a new vision is essential for a successful recovery, accompanied by a drive to achieve it. What is

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needed is well-motivated courageous, committed, hard-working, innovative, and positive management and workforce. This can be achieved through many routes by example of the CEO, personal identification with the goals, by loyalty to and care of staff, by oral and written communication of senior management, through the operating rules of the system, through incentives, or by appointing executives who have those qualities and share the corporate vision.

26.7.1.2 Windfall Gains

Windfalls can be defined as changes in circumstances, not engendered by the firm, that help boost the recovery actions. The main windfalls seem to be:

- cyclical upturns in demand
- secular upturns in demand
- government action
- exit of competitor(s)
- favourable exchange rate movements
- luck.

These events can significantly alter the revenue-cost equation for firms and help stimulate recovery. As most of these events tend to have an impact on all firms in the sector, they cannot alone lead to recovery. But they can help by easing the pressure on the financing of the recovery efforts. Some, however, are down to good fortune (luck), e.g. the historic siting of plant in the location of a new industrial development. The trick to understanding luck is the new positive posture that the recovery team adopts. Luck occurs often but is frequently invisible due to tarnished or inaccurate perceptions. This may be especially where an OBR system is very rigid and inflexible in its view of opportunities or when perceptions are altered as in crisis situations. A new team, with a new OBR, can alter perceptions and

turn yesterday's ignored opportunities into tomorrow's successful projects.

26.8 Stage six: Renewal

The final stage in the turnaround process is renewal. It is one thing to successfully negotiate a recovery from a position of threatened extinction but quite another to be able to sustain it and learn from it. The recovery phase does not contain a one-off set of measures that guarantees improved performance indefinitely. Other measures have to be taken continuously that help maintain and develop the firm's position. This is renewal or continuous learning. It has two parts—continuing characteristics

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that have to be maintained for good performance and the development and fostering of an underlying learning culture.

26.8.1 Continuing Characteristics

We have analysed the characteristics of sustained good performance into seven groups; many of these characteristics can be traced directly to the actions taken in the retrenchment and recovery phases. They are:

1. Good management. Features include action orientation, a culture that values people, good internal communications, incentives for the Board and key executives, staying close to customers, strong corporate values, and a Board that is not involved in the day to day running of the business. Perhaps the most striking of these is the continuation of the action-orientation of the recovery phase. The same expenditure of energy and enthusiasm for the task, a confident approach to risk, and a wide search for opportunities.
2. Appropriate organization structure. An important role of organizational structure is to facilitate the effective implementation of management decisions for running the company. The main features include simplicity, lean head office, profit or cost centres with delegated powers, well developed strategic planning systems in larger firms, and regular but informal strategy reviews in smaller firms.
3. Effective financial and other controls. Features here are similar to those in most stable and well run businesses and refer to sound, timely, and comprehensive management information systems, tight liquidity control with good cash flow forecasts, budgetary control, and effective capital budgeting.
4. Sound product-market posture. Much of this activity can be identified as active portfolio management. This requires a broad search for opportunities, a continuous watch on existing markets, and the ability to capitalize on divestment chances. The main features are the investment in growth markets where the firm is competitively strong, maintenance of high market shares in the major business, a focus on the business the firm knows best, maintenance of entry barriers to the main business, and harvesting or divesting competitively weak businesses.
5. Good marketing management. This element is closely related to product market activity above and so its importance is already established. Main features are regular analysis of market research information and its continuous collection, regular analysis segmentation and positioning analysis, systematic search for new markets, regular consultation with key customers, and a strongly motivated and coordinated sales force.
6. High quality maintained. High quality in many global markets is now a given for competitive entry. This means tight quality control systems throughout the value chain, systematic review, and analysis of customer views and competitor

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products/services and constantly reiterating the message within the internal culture about zero defects.

7. Tightly controlled costs. Again, these are a prerequisite for survival in most tight markets and represent one of the lasting legacies of the crisis of the turnaround era. Yet, as the firms have learned, tight cost control is not enough. They must continuously invest in new plant, machinery, technologies, training of staff, and R&D. The lesson for many renewal companies was not to confuse costs with investments.

26.8.2 Development and Fostering of a Learning Culture

Research suggests that learning runs through a three-phase model as presented in Figure 26.10.

Learning draws upon experience, memories, and past actions. This knowledge is then processed by individuals or groups and compared with current action through a feedback mechanism. If the feedback is positive and the stimuli strong enough, it may then transfer into a modification of current routines, rules, and patterns that govern behaviour. For many organizations, wedded strongly to past recipes, it is difficult to shift the 'dominant logic' with which they run their operations and develop their strategies. So behaviour changing amid top management teams can be tough.

However, as organizational environments become more dynamic and their constituent variables interact with greater complexity, the need for continuous learning grows. Similarly, there is a need for this learning to accelerate the change in corporate routines to ensure organizational adaptation. In other words, organizations have to learn for change and be adaptive. This means a faster rate of learning and a faster transfer of this learning into the rules and routines that affect behaviour.

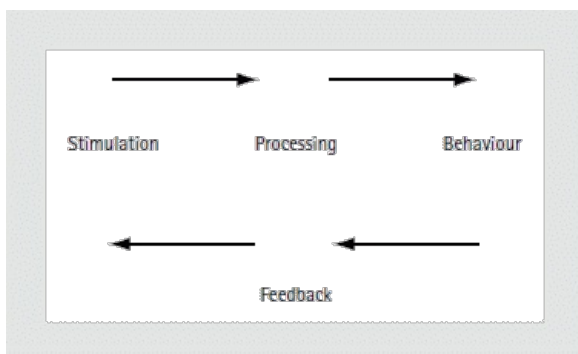


Fig. 26.10 Simple learning loop

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Unfortunately, organizational learning theory remains silent on the knowledge processing routine in Figure 26.10. Recent work in open systems theory, cybernetics, and complexity science may help. Here, organizations can be viewed as selforganizing systems (Nonaka 1988). In contrast to a classic machine model, the characteristics of such systems are: 'the ability to continuously renew and recycle their components, while maintaining the integrity of their overall structure and... to reach out creatively beyond physical and mental boundaries in the processes of learning, development and evolution' (Capra 1982). Research in chemistry, mathematics, and biology provides support for the existence of such systems. Recently, research findings in management have provided support for the organizational adaptation position through the discovery of evolutionary drivers existing within self-organizing systems.

The complexity science is a multidisciplinary approach that tries to grapple with the non-linearity, unpredictability, and uncertainty in the behaviour of self-organizing systems. In this branch of the sciences, such systems are known as complex adaptive systems: 'A complex system is a system of a large number of agents that interact with each other in various ways. Such a system is adaptive if these agents change their actions as a result of the events in the process of interaction' (Vriend 1994). This multiplicity of interconnections is responsible for the adaptiveness of such systems, in that any configuration of interconnections constitutes a system state. So any change in environment or internal conditions can be addressed within the system's vast range of possible configurations. Behaviour in these systems tends to move away from extremes of complete order, inertia and stasis, on the one hand, and complete randomness and chaos, on the other. Hence, they would have inherent mechanisms that prevent many of the primary causes of decline (see Section 26.3.2).

Moreover, agents within the system learn to anticipate some of the results of their actions over time through a set of decision rules or 'schemas'. These adaptive agents learn within a classifier system (see Holland 1995 and Neumair 1998). This consists of a system of rules that receives environmental signals and messages and processes them through a system of routines into outgoing signals and messages. The processing element involves a sequential comparison of external messages with the organization's own message memory bank. The classifier system is simply a collection of all the organization's rules and routines and so is unique.

The organization learns through:

- **Exploitation**. The development of its existing rules, strengthening the good ones at the expense of those that do not work well.
- **Exploration**. The search for, and creation of, new rules to improve the existing ones through refinement, continuous improvement, and kaizen. The number of rules in a classifier system is limited and so any new rules have to be better than, and therefore replace, the weaker ones already in the system.

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- **Mutation**. A random mutation element operates that can change or modify rules independently of the normal routines. The latter operates to protect the processor from any preoccupation with conservative routines. It is present to 'think the unthinkable'.

Clearly an organization that solely relied on exploitation for rule development would be closed from new rules and eventually converge on the best of what it had. A process that leads to the kind of myopia discussed in Section 26.3.2. A reliance solely on exploration would

yield too many rules for the classifier system to test and implement. The system would become unstable. Any system with low rates of mutation tends to 'in-breeding' and with too much, could tend to chaos. A balance is so required between the learning elements.

This rule-based decision-making is consistent with much of the traditional organizational learning literature. For instance, a general understanding of rules is expressed thus: 'By rules we mean the routines, procedures, conventions, roles, strategies, organisational forms and technologies around which political activity is structured. We also mean the beliefs, paradigms, codes, cultures, and knowledge that surround, support, elaborate, and contradict those roles and routines' (March and Olsen 1989). Because organizational cultures are different, each rule set is unique to that firm as is the learning process associated with it. Hence, any turnaround treatment must also be individual in content and process. Groups of rules have similarities, e.g. the notion of industry 'recipes' (Grinyer and Spender 1979), where discernible patterns of learning can be found among cognate firms in the same sector, e.g. the basis for much modern Northern hemisphere rugby is the New Zealand recipe for playing the game. But the processing of the recipe within firms is usually very different and dependent on the resource base of the entity, e.g. Welsh versus English rugby. In other words, the routines differ: 'it is the routines themselves, and the ability of management to call upon the organisation to perform them, that represents the firms' *business capability* ... because routines involve a strong tacit dimension, they may not be easy to imitate. To the extent that this is so, routines contribute to a firm's distinctive competencies and capabilities' (Teece, Pisano, and Shuen 1990).

In addition to rules and routines, the nature of learning is similar between the two approaches. For instance, the exploitation mechanism equates to 'single loop learning' and the exploration mechanism to 'double loop learning' in Argyris and Shon's (1978) widely accepted explanations of how organizations learn. Hence, the basic classifier model proposed by Holland is in agreement with much of the mainstream organizational learning literature. It embodies learning in a set of rules and routines, unique to the organization.

Besides the mainstream, learning under complex adaptive systems equates well with alternative views of the world. In particular, the competing views within organizational epistemology of 'representationist' (the world is given and individuals adapt) and 'autopoietic' (the world is not given but is created by individual

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cognition and interaction). In either the adaptive or created worlds, rule-based systems are the mechanisms for living and surviving.

26.8.3 How to Learn to Learn

Classifier learning mechanisms mean that organizations have (a) to maintain a balance among the individual mechanisms (exploitation, exploration, and mutation) and (b) constantly maintain and develop the routines within each. Practically, this translates into careful design of the planning and control systems. In de Geus's (1988) words, 'how to institutionalise learning in the organisational setting'. For instance:

1. Exploitation. The aim here is to make things efficient and do the best learning possible within the existing rules and routines. This could be accomplished through the following:

- development of rules and routines that are based on best practice; and this may not be in the same sector
- routines that consider weak rules as well as strong ones, ensuring that the latter are self-reinforcing
- balance in organizational structure between the mechanistic and organic as appropriate to task and purpose
- an emphasis on loose coupling and decentralization to enhance radical innovation (especially in changing global markets)
- utilization of joint ventures, alliances, internal corporate venturing and federalism for innovation, rule challenge and development
- use of efficiency techniques for good routines, e.g. business process re-engineering, efficient management information systems, cash flow, zero-based budgeting, key performance indicators, activity-based costing, etc.
- use of quality improvement processes in the supply chain, manufacturing and channel management, e.g. key account management
- emphasis on improving 'time to market' throughout the chain.

By this time, staff have endured many necessary changes on the long road to recovery. In the renewal stage, we ask for more change to stay ahead of the game. Clearly, if this process is rushed, staff will begin to feel the effects of fatigue and generally wonder what all the change is for. Moreover, they will begin to ponder when the flow of good results will put an end to further change. If this happens, the turnaround manager needs to slow down and increase the level of communication and training that will emphasize the message that change must become the norm and not the exception in the organization.

2. Exploration. The aim here is to make things effective and lift learning to a second tier above the existing rules and routines. This could be accomplished through the following:

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- use of broad scanning of the general and operating environments with deep analysis of the signals and drivers
- constant challenge of the existing rules and routines through:
 - the generation of creative tension

- the harnessing of the energies of ‘fear’ and ‘aspiration’ through artificially generated crises or the stretching of horizons through new visions or ‘strategic intents’
 - the making of the status quo more dangerous than unknown futures
 - the institutionalization of doubt and low contentment to sharpen perception
 - facilitate experimentation
 - share and disseminate new insights and ideas
 - analyse failure, accept it, and learn from it
 - embrace risk and uncertainty in decision-making
 - embrace conflict
 - design of control systems that are proactive and pay attention to the acquisition, distribution, interpretation, and storing of new knowledge enable managerial sabbaticals for reflection.
3. Mutation. The aim is to avoid ossification in any processing of rules and routines, no matter how well developed the exploratory stage is.
- think the unthinkable on a systematic basis, e.g. through the development of scenarios into deep futures and monitoring of future pathways
 - do the opposite of what the figures say now and again
 - encourage new blood and youthful ideas
 - ensure Board composition and contribution is, and stays, critical and radical
 - develop ‘skunk-works’, fund them, and tolerate their failures.
- We thus combine the exploitative, explorative, and mutative elements of learning and fold them into day to day operations. Corporate learning should be a natural process, one given the same time, attention, and investment as any other process in the business. It should become endemic in the culture. It should be the biggest investment.

26.9 The Future

Research into turnaround tends to go forward in fits and starts. Academic researchers are all pretty well known to each other, as is their work. Practitioners can be flamboyant and charismatic turnaround doctors (e.g. Sir John Harvey-Jones) with

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high profiles, or consultants and accountants working diligently but anonymously as part of turnaround teams. For the future, we should endeavour to:

- develop the academic work away from Anglo-American contexts
- develop the academic work away from large, quoted companies towards smaller firms (who arguably need help more)
- reduce the emphasis on ‘generic strategies’ and focus on research into turnarounds in specific contexts, e.g. sector, country, size, organizational culture, management styles
- utilize a multidisciplinary approach to inform theory building, e.g. social anthropology, social psychology
- marry academic work with that of practitioners
- build large databases with practitioners to encourage a more consistent dissemination of work.

In essence, the study of turnaround is one of multiple perspectives. It incorporates elements from all the subjects of an MBA curriculum. Both academics and practitioners need a broad base, the involvement of different specialists and a genuine partnership.

26.10 Summary

This chapter has described the corporate turnaround as a six-stage process consisting of Causes, Triggers, Diagnosis, Retrenchment, Recovery, and Renewal. Stage processes are now a generally accepted approach to the subject but here, we add the first three and the last one in an effort to develop the subject area both theoretically and practically. We also pay special attention to the diagnostic events and schema, drawing on medical research and practice for inspiration. Throughout the stages, we have emphasized the importance of understanding the behaviour of the dominant coalition, explaining what actions to expect and when, but, more importantly, why they occur. A central and binding theme has been the emphasis on unique solutions to the unique problems of each enterprise. As learning classification systems and corporate cultures are different for each firm, every turnaround strategy that wishes to optimize its chances of success has to customize its solution. Moreover, it does not end when the company reaches a position of relative safety. To ensure that the same mistakes are not made again, the learning has to happen and be made to happen. That is the ultimate duty of strategic management.

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References

- Altman, E. (1971). *Corporate Bankruptcy in America*. Lexington, Ky: Lexington Books, D. C. Heath.
- Argenti, J. (1976). *Corporate Collapse: The Causes and Symptoms*. New York: McGraw-Hill.
- Argyris, C., and Shon, D. (1978). *Organizational Learning*. Reading, Mass.: AddisonWesley.
- Barker, V. L., and Duhaime, I. M. (1997). 'strategic Change in the Turnaround Process: Theory and Empirical Evidence'. *Strategic Management Journal*, 18: 13–38. [Link](#)
- and Mone, M. A. (1994). 'Retrenchment: Cause of Turnaround or Consequence of Decline?'. *Strategic Management Journal*, 15: 395–405. [Link](#)
- (1998). 'The Mechanistic Structure Shift and Strategic Reorientation in Declining Firms and Attempting Thurnaround'. *Human Relations*, 51/10: 1227–58. [Link](#)
- Barney, J. (1991). 'Firm Resources and Sustained Competitive Advantage'. *Journal of Management*, 17/1: 99–120. [Link](#)
- Bibeault, D. B. (1982). *Corporate Turnaround: How Managers Turn Losers into Winners*. New York: McGraw-Hill.
- Cameron, K. S., Sutton, R. I. and Whetten, D. A. (1988). 'Issues in Organizational Decline', in K. S. Cameron, R. I. Sutton, and D. A. Whetten (eds.), *Readings in Organizational Decline: Framework, Research and Prescriptions*. Boston: Ballinger Publishing, 3–19.
- Capra, F. (1982). *The Turning Point*. New York: Simon & Schuster.
- Cyert, R. M., and March, J. G. (1963). *A Behavioural Theory of the Firm*. Englewood Cliffs, NJ: Prentice-Hall.
- De Geus, A. (1988). 'Planning as Learning'. *Harvard Business Review*, 66/2: 70–4.
- Fombrun, C. J. (1992). *Turning Points*. New York: McGraw-Hill.
- Golding, D. (1980). 'Establishing Blissful Clarity in Life: Managers'. *Sociological Review*, 28: 763–82.
- Goldston, M. R. (1992). *The Turnaround Prescription*. New York: Free Press.
- Grinyer, P. H., and McKiernan, P. (1990). 'Generating Major Change in Stagnating Companies'. *Strategic Management Journal*, 11/Summer Special Issue: 131–46.
- and Spender, J. G. (1979). *Turnaround: The Fall and Rise of the Newton Chambers Group*. London: Associated Business Press.
- Mayes, D., and McKiernan, P. (1988). *The Sharpbenders: The Secrets of Unleashing Corporate Potential*. Oxford: Blackwell.
- Hambrick, D. G., and Schechter, S. M. (1983). 'Turnaround Strategies for Mature Industrial Product Business Units'. *Academy of Management Journal*, 26: 231–48. [Link](#)
- Hedberg, B. K. L., Nystrom, P. C. and Starbuck, W. H. (1976). 'Company on Seesaws: Prescriptions for a Self-Designing Organisation'. *Administrative Science Quarterly*, 21: 46–65.
- Hofer, C. W., and Schendel, D. (1978). *Strategy Formulation: Analytical Concepts*. St Paul, Minn.: West Publishing.
- Hoffman, R. C. (1989). 'strategies for Corporate Thurnaround: What Do We Know about Them?'. *Journal of General Management*, 14/3 (spring): 46–66.
- Holland, J. H. (1995). *Hidden Order: How Adaptation Builds Complexity*. Reading, Mass.: Addison-Wesley.
- Janis, I. L. (1972). *Victims of Group Think*. Boston: Houghton Mifflin.
- end p.808
- Kuhn, T. S. (1970). *The Structure of Scientific Revolutions* (2nd edn.). Chicago: University of Chicago Press.
- Luthans, F. (1980). 'The Learning Process', in L. L. Cummings and R. B. Dunham (eds.), *Introduction to Organizational Behaviour*. Homewood, Ill.: Richard D. Irwin, 205–27.

- McKiernan, P. (1992). *Strategies of Growth: Maturity, Recovery and Internationalisation*. London: Routledge.
- March, J. G. and Olsen, J. P. (1989). *Rediscovering Institutions: The Organizational Basis of Politics*. New York: Free Press.
- Milburn, T. W. (1972). 'The Management of Crisis', in C. F. Hermann (ed.), *International Crises: Insights from Behavioural Research*. New York: Free Press.
- Miller, D. (1990). *The Icarus Paradox: How Exceptional Companies Bring about their own Downfall*. New York: Harper Collins.
- Mueller, G. C., and Barker, V. L. (1997). 'Upper Echelons and Board Characteristics of Turnaround and Nonturnaround of Declining Firms'. *Journal of Business Research*, 39: 119–34. [Link](#)
- Neumair, U. (1998). 'A General Model of Corporate Failure and Survival: A Complexity Theory Approach'. Ph.D. dissertation, University of St Gallen.
- Nonaka, I. (1988). 'Creating Organizational Order Out of Chaos: Self-Renewal in Japanese Firms'. *California Management Review*, Spring: 57–73.
- (1992). 'Turnaround: Retrenchment and Recovery'. *Strategic Management Journal*, 13: 287–309. [Link](#)
- Robbins, D. K., and Pearce, J. A. (1994a). 'Entrepreneurial Recovery Strategies of Small Market Share Manufacturers'. *Journal of Business Venturing*, 9: 91–108. [Link](#)
- (1994b). 'Retrenchment Remains the Foundation of Business Turnaround'. *Strategic Management Journal*, 15: 407–17. [Link](#)
- Pettigrew, A. M., and Whipp, R. (1991). *Managing Change for Competitive Success*. Oxford: Basil Blackwell.
- Pondy, L. (1984). 'Union of Rationality and Intuition in Management Action', in P. Shrivastava and Associates (eds.), *The Executive Mind: New Insights in Managerial Thought and Action*. San Francisco: Jossey-Bass.
- Pearce, J. A., and Robbins, D. K. (1992). 'Turnaround: Retrenchment and Recovery'. *Strategic Management Journal*, 13: 287–309. [Link](#)
- Slatter, S. (1984). *Corporate Recovery: Successful Turnaround Strategies and their Implementation*. Harmondsworth: Penguin.
- and Lovett, D. (1999). *Corporate Turnaround*. Harmondsworth: Penguin.
- Smock, C. D. (1955). 'The Influence of Psychological Stress or the Intolerance of Ambiguity'. *Journal of Abnormal and Social Psychology*, 50:177–82. [Link](#)
- Spender, J. C. (1979). 'Strategy Making in Business'. Ph.D. thesis, Manchester Business School, Manchester.
- Starbuck, W. H., and Milliken, F. J. (1988). 'Challenger: Fine-tuning the Odds until Something Breaks'. *Journal of Management Studies*, 25:4 319–40. [Link](#)
- Starkey, K. (2000). The Music of Organization or 'some Like It Hot': A Work in Progress (prepared for the Conference-Workshop 'Conception et dynamique des organisations: Sait-on piloter le changement?', École des Hautes Études Commerciales, Université de Lausanne, 17 Mar. 2000).
- Stinchcombe, A. L. (1965). 'social Structure and Organizations', in J. G. March (ed.), *Handbook of Organizations*. Chicago: Rand McNally, 142–93.

end p.809

- Teece, D., Pisano, G., and Shuen, A. (1990). 'Firm Capabilities, Resources and the Concept of Strategy: Four Paradigms of Strategic Management'. Working paper, Center for Research in Management, University of California, Berkeley, Dec.
- Vriend, N. J. (1994). *Self-Organized Markets in a Decentralized Economy*. Working Paper No. 94–03–013, Santa Fe Institute.
- Weick, K. (1993). 'Cosmology Episodes in Organizations: Young Men and Fire and the Mann Gulch Disaster'. *Administrative Science Quarterly*, 39: 628–52.
- (1995). *Sensemaking in Organisations: Small Structures with Large Consequences*. Thousand Oaks, Calif: Sage.
- (1998). 'Improvisation as a Mindset for Organizational Analysis'. *Organizational Science*, 9: 543–55. [Link](#)

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27 Organizational Structure

Richard Whittington

27.1 Introduction

ORGANIZATIONAL structures are concerned with the recurrent relationships between the various members of an organization (Donaldson 1996). This includes not just authority and reporting relationships—the simple question of who is in charge. Organizational structures tell us who has the resources; who talks to whom; who is accountable for what; what you can do on your own and what you must do with others; what kinds of career paths are available; and how knowledge flows around the organization. Some of these structures are written down formally, in the organizational chart and other procedures. Many of them are informal, even if often closely linked to formal structures as well. Organizational structures are therefore central to achieving anything in an organization—an essential part of strategy implementation.

Consider any important strategic initiative. Mergers and takeovers immediately raise issues of appropriate structures for integration: should new businesses sit alongside old, or be melded within the whole? Internationalization raises other structural dilemmas: should national structures be stretched to include overseas operations or should overseas units be able to manage themselves autonomously according to local needs? Diversified businesses have their tensions too: how far should head offices intervene to ensure synergy between different businesses, at the

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risk of constraining the businesses from pursuing their interests freely and accountably as they see fit? In short, without fixing the right structure, a strategy is not really done.

The importance and scope of structural issues need to be reasserted. For too long it has been fashionable to dismiss organizational structure as irrelevant and overly formalistic (Waterman, Peters, and Phillips 1980; Pascale 1984). This chapter will assert the continuing importance of structure to thinking about strategy practice. It will also introduce the contingency framework as a starting-point for designing appropriate structures, and apply it to three particularly central strategic issues—growth, diversification, and internationalization. It goes on to address some recent challenges to traditional thinking about large organizations and their structures, namely networks and knowledge management. It then finishes by considering the dynamic nature of structure—the need for continuous, co-evolutionary patching and repatching—and the kinds of skills and capabilities this entails. Structural dynamism is the new agenda for managers and researchers alike.

27.2 The Importance of Structure

James Gordon (1978) has written an intriguing book about physical structures—bridges, buildings, dams, and so on—entitled: *Structures, or Why Things Don't Fall Down*. Organizational structures perform an equally important role in human enterprises today. The organizations that dominate our lives are vast and complex entities, employing tens or even hundreds of thousands of people in many different activities all around the globe. We may not always like these organizations, but considered afresh and objectively, they are remarkable constructions. It is structure that holds them together and makes them work.

There are many, though, who argue that the traditional large-scale corporation is now out of date (e.g. Castells 1996; Zenger and Hesterly 1997) According to them, this is the age of entrepreneurs, spin-outs, and networks of small companies. None of these have much need for structure. But as we look out at the business world as it is, there are few signs that the large corporation and its structures are really in decline.

Table 27.1 lists the ten largest corporations by turnover in the world. The measure is turnover—real business—not market capitalization—promised business in the future. For all the talk of a new economy based on e-commerce and networks, these corporations are all pretty old: only four were founded in the twentieth century and the youngest, Wal-Mart, is already about to enter its fifth decade. They are all in rather traditional businesses—four in automobiles. Most important for the structural

end p.812

Table 27.1 The world's largest firms by revenues, 1999

Rank	Revenues (\$bn)	Employees	Foundation date
1. General Motors	176.5		388,0001908
2. Wal-Mart	166.8	1,140,000	1962

3. Exxon Mobil	163.9	106,0001882
4. Ford	162.6	364,5001903
5. Daimler-Chrysler	160.0	466,9381883
6. Mitsui ^a	118.6	38,4841673
7. Mitsubishi ^a	117.8	42,0501870
8. Toyota	115.7	214,6131926
9. General Electric	111.6	340,0001892
10. Itochu ^a	109.1	5,3061858
Average	140.3	296,0491876

^aTrading companies

Source: The Global 500, Fortune, 24 July 2000; Derdack 1988.

issue, these corporations are massive employers. Leaving aside the three Japanese trading companies, their average employment is over 400,000 people. Wal-Mart has more than a million employees. Some of these top corporations are highly diversified: General Electric ranges from turbine generators to media and finance. They all operate in many different national environments, with the four automobile manufacturers each having factories and other operations in North America, Asia, and Europe. On this scale and with this complexity, these corporations still need structure (see Box 27.1 Wal-Mart's structure).

There are plenty more large-scale corporations like these. To give a perspective, new economy companies like Microsoft and Cisco rank only 216 and 409 in the *Fortune* Global 500 list (*Fortune*, 24 July 2000). The message here is this: organizational structures may be changing in the modern world, but they are certainly not going away.

Box 27.1 Wal-Mart's structure

The world's largest private employer, Wal-Mart, operates with a 'divisional' structure (see below). There are four retail divisions: Wal-Mart stores, responsible for the classic American discount retail outlets; the Supercenters division, whose stores combine general merchandise with groceries; SAM's Clubs, the warehouse club operations; and the International Division, responsible for all non-US retailing and representing nearly 14 per cent of total turnover. In addition, there are four specialty divisions: Tire & Lube Express; Pharmacy; Wal-Mart Vacations; and Used Fixture Auctions. WalMart.com, the on-line business, is operated as a separate company.

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27.3 Rules for Structure?

For a long time, the dominant approach to structure has been that of contingency theory (Donaldson 2000). The best form of structure depends upon the particular demands (contingencies) faced by the organization. Structures are designed not according to some universal ideal but according to the particular contingencies that the organization faces. A mismatch between structure and contingencies is likely to lead to poor performance.

Some of the key contingencies that have been proposed are:

- *Organizational size.* The larger the organization, particularly in terms of employees, the more it requires hierarchical levels and specialization according to particular functions (Pugh and Hickson 1976).
- *Operational technology.* Organizations whose key operational technology involves mass production are best organized in a mechanistic and formal manner, whereas small batch producers—typically involving craft skills—can be more organic and informal (Woodward 1965).
- *Organizational environment.* Organizations working in very dynamic and uncertain environments perform best with fluid, organic structures. Organizations in more stable and predictable environments are able to work with mechanistic and formal structures (Burns and Stalker 1961).
- *Diversification strategy.* The more different kinds of business an organization operates in, the more it needs to decentralize its operations into focused and autonomous divisions or business-units (Chandler 1962).
- *Internationalization.* The more international operations are, or the more important adaptation to local market needs, the more the organization will need to decentralize to geographical area units (Stopford and Wells 1972).

According to contingency theory, knowing how contingencies and structures fit together provides the organization with firm rules for structural design.

Contingency theory can be faulted for considering its various contingencies too much in isolation. More recently, advocates of configuration theory (Miller 1986) and the theory of complementarities (Milgrom and Roberts 1995; Whittington et al. 1999; Pettigrew et al. 2002) have proposed more holistic perspectives, where structure needs to match simultaneously with a whole raft of characteristics, from

strategy, through systems to technology. In these views, organizational characteristics are complementary, working best when all fitted together. Organizations need to be configured as wholes. As in the Unilever example (Box 27.2 Complementary structural change at Unilever), initiatives in strategy and systems will yield their benefits only when the right structure is put in place. Rather than fitting each individually to different contingencies, strategies, structures, and systems need to be aligned into virtuous circles of complementary reinforcement.

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Whether from the point of view of contingencies, configurations, or complementarities, the basic takeaway is clear: structure is a key component in the web of factors determining organizational performance. The following sections will consider three key contingencies—growth, diversification, and internationalization—in more detail, before going on to address the implications of an increasingly fast-paced and networked world for traditional contingency thinking.

Box 27.2 Complementary structural change at Unilever

The Anglo-Dutch Unilever is an international food and home and personal care group that radically reorganized in the mid-1990s. Traditionally Unilever had been highly decentralized in character, with a classic 'multi-domestic' structure allowing a great deal of autonomy to the national subsidiary companies. During the late 1980s and early 1990s, the company began to introduce new innovation and strategy systems, at the same time as shifting strategy to focus on core businesses. Strategy and systems were changing, but structural change had to wait until 1996, with the launch of the Shaping for Outstanding Performance programme.

Until 1996 power had been vested in a Special Committee—composed of the Dutch and UK company chairmen, plus the chairman designate—and a fifteen person executive board, comprising functional, product, and regional directors. The structure as a whole was a matrix, with the product 'coordinators' (directors) having prime profit responsibility in Western Europe and the United States and regional directors having profit responsibility in remaining regions. Responsibilities often got blurred. According to an internal document: 'We need clarity of purpose and rôle: the board finds itself too involved in operations at the expense of strategic leadership.'

Shaping for Outstanding Performance abolished both the Special Committee and the regional director level. In its place was put an eight (later seven) person executive committee made up of the chairmen plus functional and category (i.e. food and home and personal care) directors. Reporting to them, with clear profit responsibility, were thirteen (later twelve) Business Group presidents, typically with complete profit responsibility for their category within a particular region. Global strategic leadership was clearly placed at the level of the executive committee; operating performance was the direct responsibility of the business groups.

Beneath this formal structure, international coordination was facilitated by the existence of many formal and semi-formal networks. Research and development was assured by international networks of innovation centres, leadership typically going to centres of expertise rather than automatically to the Netherlands or the United Kingdom. Product and brand networks—International Business Teams—worked globally to coordinate branding and marketing. At the same time, functional networks worked on a succession of projects in order to achieve global coordination on critical issues, such as recruitment and organizational effectiveness. All these networks relied heavily on informal leadership and social processes, as well as increasing investment in electronic mail and databases. Participation was largely determined and funded by the Business Groups rather than corporate headquarters.

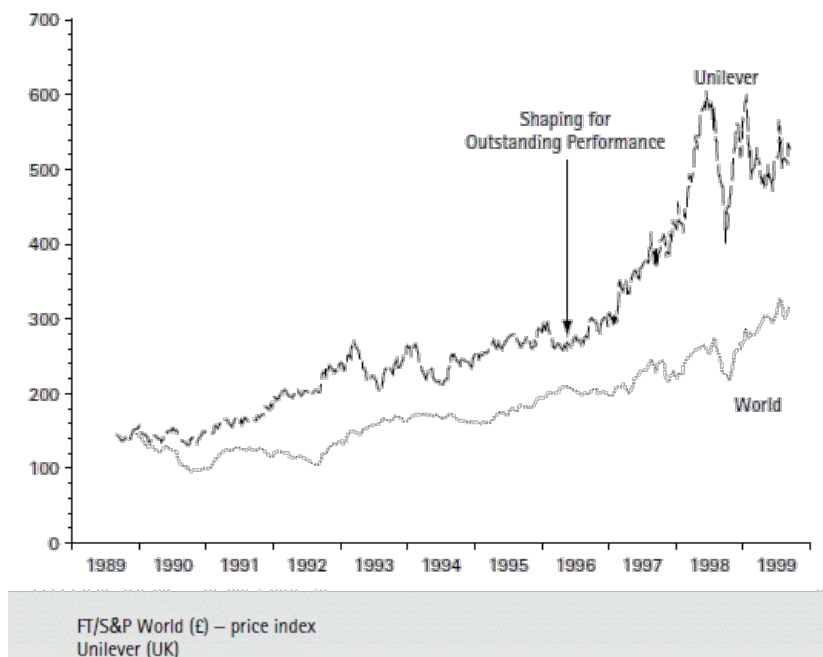


Fig. 27.1 Structural change and performance at Unilever

The importance of completing the virtuous circle of complementarities is illustrated here by the timing of performance take-off. In the period preceding the Shaping for Outstanding Performance change, there had been both strategic changes in terms of greater focus on core businesses and systems changes in terms of innovation and strategy formation. But only when the circle was completed by structural change did the share price start to significantly outperform the world index. Unilever's value more than doubled in the two subsequent years. Structure pays.

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27.4 Growth and Structure

A classic finding from contingency theory is that organizational size—whether measured by employees or sales—is strongly correlated with elements of structure (Pugh and Hickson 1976). The larger the organization, the more hierarchical levels it

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typically has. The larger the organization too, the more it can afford functional specialists—in other words, instead of everybody mucking in, setting up specialized functions and departments. This finding on size has crucial implications for successful growth strategies.

Larry Greiner (1998) has identified regular patterns of crisis and reordering in the ways in which organizations grow (see Figure 27.2). Crises are frequently because of structure—sometimes too little, other times of the wrong sort. Thus, the first stage of a new organization is typically one of growth through the exercise of creativity, the realization of the original entrepreneurial idea. As the organization grows larger and older, it risks the first crisis, that of leadership. The founders have to abandon their original informality and introduce some managerial structures. Growth is restored on the basis of a stronger sense of direction, until the next crisis hits. Now the problem is of autonomy: too much structure is smothering initiative and creativity. The solution is to delegate, introducing more decentralized structures. These succeed for a while, until problems of control and integration arise. The solution this

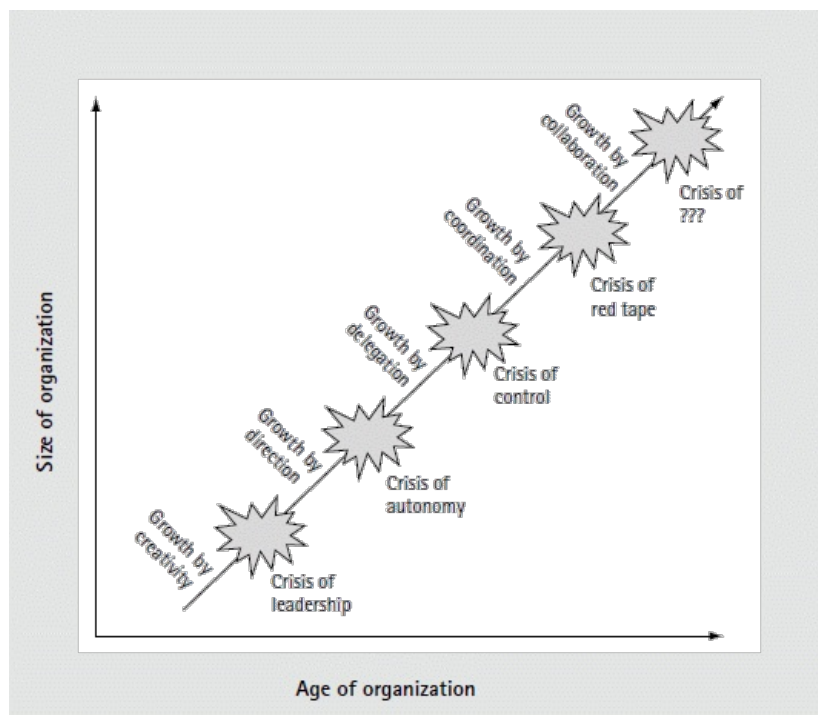


Fig. 27.2 The five stages of growth

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time is to put in coordinating structures, with cross-departmental liaison and company-wide controls. Soon the organization runs into a crisis of red tape. Here the way forward lies in developing a spontaneous and collaborative spirit that is capable of oiling the wheels of formal structure. Rather as in theories of configurations or complementarities, culture is necessary to making structures work smoothly.

Sometimes structure can be seen as a barrier to growth and enterprise: it sounds too much like bureaucracy for its own sake. Management guru Tom Peters (1992), for instance, celebrates 'disorganization', 'chaos', and 'mess'. Management theorists such as Barrett (1998) and Hatch (1999) invoke jazz as a metaphor for organizing, urging improvisation within minimal structures. Close reading, in fact, reveals that these advocates of chaos and improvisation are always careful not to throw out structure altogether: they just want the right structure and not too much of it. This is the message of Greiner's (1998) model too. Getting the structure right is critical to strategic growth, and the right structure changes as the organization gets larger. Anticipating the structural demands of rapid growth was essential to the success of the world's first large-scale Internet browser company, Netscape (see Box 27.3 Structuring Netscape). As Netscape's Jim Barksdale says, the trick is to know when to bring on the bureaucrats.

Sometimes, too, structure is resisted by high-skilled knowledge workers. In accounting, consulting, and law firms, for instance, the norm has traditionally been professional partnerships. Here accountants, consultants, and lawyers are given great freedom to develop their practices as they see fit, with control exercised loosely through the democracy of the partners. Growth has brought these loosely structured organizations under pressures for change: Big Five accounting firms typically have more than 100,000 employees, operate all over the world and are involved in

Box 27.3 Structuring Netscape

Netscape was founded (as Mosaic Communications) in 1994. Within five years, it was a half-billion dollar company and the fastest growing software company of all time. A large part of its success was down to two things: first, the readiness of founders Jim Clark and Marc Andreessen to hire as their chief executive Jim Barksdale, an experienced senior manager with IBM, AT&T, and Federal Express; second, Barksdale's readiness from the first to impose structure and systems on the explosively successful company.

Barksdale summed up his philosophy: 'The trick is to know when do you bring on the bureaucrats. There's a stage in a company's life where it's fine to be loosely-controlled. There's another stage where you have to get more and more serious.' From the first, he put in place control and accounting systems 'fit for a billion-dollar company'. He also quickly decentralized the rapidly growing organization into a series of product divisions, broken down in turn into smaller

groupings called 'divlets'. Divisions and divlets could get on with their complex and fast-moving tasks, while providing the clarity of reporting and accountability essential for control.

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consulting, information technology, and even legal services. According to Hinings, Greenwood, and Cooper (1999), the appropriate model in these large, multinational professional service organizations is increasingly that of the 'Managed Professional Business'. Here professional partnerships become subject to the kinds of specialization and hierarchy normal in any other large enterprise. 'Partners-in-charge' are introduced, taking responsibility for practice areas (such as audit, tax, etc.) little different from conventional departments or divisions. Specialists are also hired, typically from outside the profession, to take responsibility for key functions such as marketing or human resources. Rational planning systems are imposed to give the firms strategic coherence. The structural transformation of engineering consultancy Ove Arup is quite typical of this kind of move to the style of Managed Professional Business (see Box 27.4 Ove Arup's structural reformation).

Growth strategies, then, inescapably increase the need for structure as they enlarge the scale of operations. Hierarchical layers increase and functional specialization emerges. Some activities tend to become more centralized; others are decentralized within formal frameworks. Growth, however, does not necessarily lead to bureaucratization in a simple negative sense. Peter Blau (1972) has shown that the proportion of administrative staff as a whole tends in fact to fall with increased size. There are economies of scale in bureaucracy, so that growth actually reduces bureaucratic intensity. Structure and bureaucracy are not pernicious parasites on growth. As Greiner (1998) insists, structures are essential to successful development for all kinds of business, whether traditional manufacturing, Internet start-up, or knowledge-intensive service industry.

Box 27.4 Ove Arup's structural reformation

Ove Arup was founded in London as a one-man engineering consultancy in 1946. By the 1990s it had 6,000 employees in more than 50 offices in over 40 countries around the world.

The company had started as a traditional partnership. In 1992, however, it became a private company, owned by two trusts: an employee trust and a company trust. Profits are shared. The company also addressed its structure. In the early 1990s, the company still had 50 different units all reporting directly to the main 'Partnership Board'. However, there was a feeling that the multinational and multidisciplinary whole was now drifting apart. The solution was the 'Reformation' initiative, launched in 1995. The Partnership Board was replaced with a Policy Board, responsible for strategy and a new 'statement of intent'. Five operational boards were established to manage different parts of the business: Operations, Civil Engineering, Industrial Engineering, Building Engineering, and East Asia. Skill networks, market networks, and project teams worked across these divisions in order to ensure collaboration and cohesion. Centralized initiatives on computer systems and human resources provided the necessary common infrastructure.

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27.5 Diversification and Structure

One of the key means of growth over the last one hundred years has been strategies of diversification. Although during the last decades of the century there may have been some reversal of diversification in the United States—(Markides 1995)—in Europe it looks as if diversification has continued to be an increasing phenomenon through the whole post-war period. Whereas in 1950 around about one-third of the largest corporations in France, Germany and the United Kingdom were diversified, by the 1990s the proportion was around two-thirds or more (Whittington and Mayer 2001). Diversification is a key structural contingency. As corporations grow more diversified, they become both bigger and more complex: not just more business, but new businesses of sometimes many different kinds. This puts a lot of strain on the two traditional forms of organization: the functional structure and the holding company (Chandler 1962; Williamson 1975).

The functional structure is centralized by the principal functions of the business—sales, production, finance, and so on. A typical example is the DuPont corporation immediately after World War I (see Box 27.5 DuPont discovers the M-form). The problem for the functional structure is coping with the complexity of diversification. Departments and their chiefs have to be equally able to deal with functional issues arising from potentially a very wide range of businesses. In the DuPont example, making and selling explosives was a very different matter to making and selling paints.

Box 27.5 DuPont discovers the M-form

The history of the DuPont chemical company illustrates the importance of getting the structure right for diversification (see Chandler 1962). At the beginning of the twentieth century, it was relatively undiversified, an explosives company producing dynamite. DuPont enjoyed boom times during World War I, of course, but the company's management was shrewd enough to realize that the explosives business would not for ever enjoy such high demand. Accordingly, they diversified into dyestuffs, paints, and more obscure products of the time such as pyralin and fabrikoid, all with good peacetime prospects. However, it retained its old centralized 'functional' structure to manage this new range of products. The heads of the sales and production functions were responsible for everything from explosives to paint (see Figure 27.3(a)). The

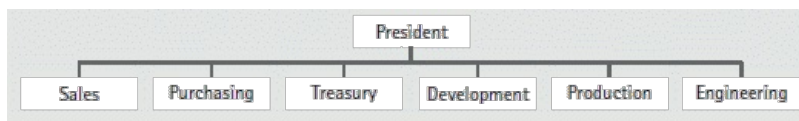


Fig. 27.3a The changing structures of DuPont: DuPont's functional structure, 1919–1921

result was chaos. DuPont plunged into losses after the war: the only profitable business turned out to be explosives. The problem was not the strategy—diversification made good sense—but the structure with which to manage it. As Chandler (1962: 314) famously put it: 'unless structure follows strategy, inefficiency results'. The solution DuPont adopted in 1921 was to decentralize into separate divisions for each product (see Figure 27.3(b)). Effectively, DuPont was the first company in the world to hit upon this structural solution to the problem of diversity. DuPont has kept essentially the same product divisional structure ever since (see Figure 27.3(c)).

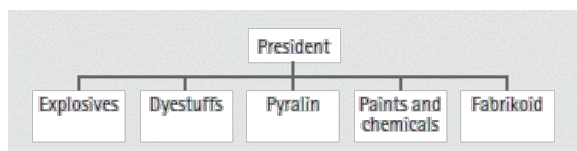


Fig. 27.3b The changing structures of DuPont: DuPont's new divisional structure, August 1921

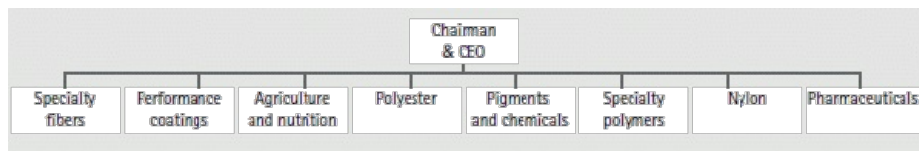


Fig. 27.3c The changing structures of DuPont: DuPont's divisional structure, 1999

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The holding company structure, on the other hand, is highly decentralized. Subsidiary businesses have a great deal of autonomy, not being integrated within common accounting and other systems and often being only partially owned. The result is that it is hard first to compare the performance of the different businesses and then to exert the kind of control necessary for policing performance and shifting resources to the most promising opportunities. A typical example of a traditional holding company is the French luxury goods Financière Agache group in the mid-1990s (see Figure 27.4). Here, the largest part of the business, LVMH, is a quoted company under minority ownership (45%), operating with separate systems from its ultimate parent (Whittington and Mayer 1997). Partial ownership and quoted subsidiary statuses inhibit optimal structure, so that the Guerlain perfume operation stands apart from LVMH's perfume division and Christian Dior and Celine are separate from the couture division.

According to contingency theory, diversified corporations can solve the dilemma between over-centralization and under-centralization by adopting the

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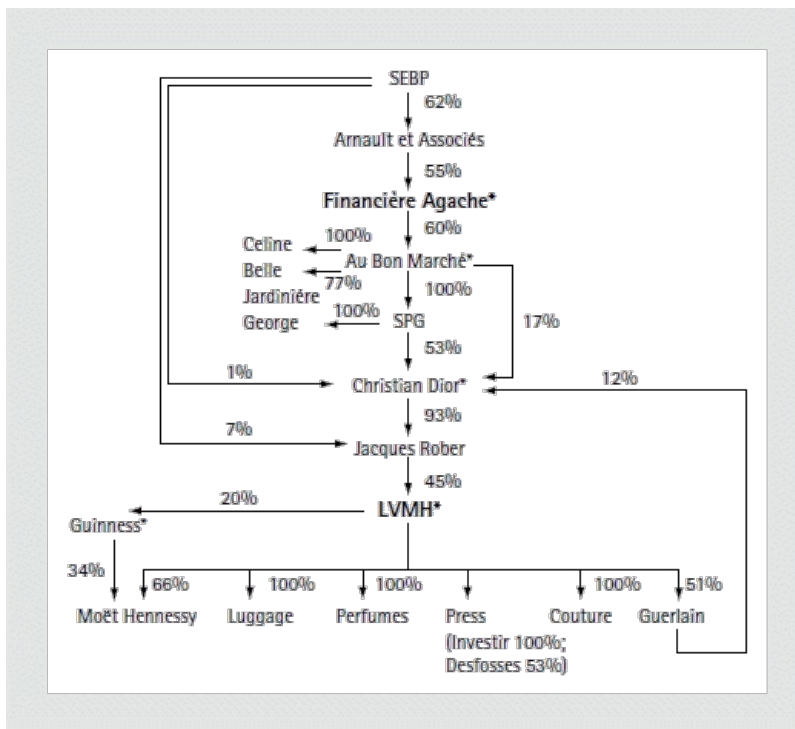


Fig. 27.4 The Financière Agache holding company structure *Quoted companies

multi-divisional structure (often called 'the M-form'). Instead of trying to control everything from the centre, the multi-divisional structure separates operational responsibility for the individual diversified businesses from strategic responsibility for the make-up and performance of the overall corporate portfolio. Operational responsibility is decentralized to the heads of divisions—distinct business units, organized around products or regions—while strategic responsibility is kept firmly at the centre. The centre does not meddle in operations, but simply holds divisional heads accountable for performance. The centre installs the necessary common systems to monitor divisional performance and to ensure that resources are directed according to opportunity and strategy. The contrasting patterns of centralization and decentralization in the multi-divisional structure and the alternative functional and holding structures are illustrated in Figure 27.5.

The advantages of the multi-divisional (M-form) structure over the functional and holding structures are as follows (Williamson 1975):

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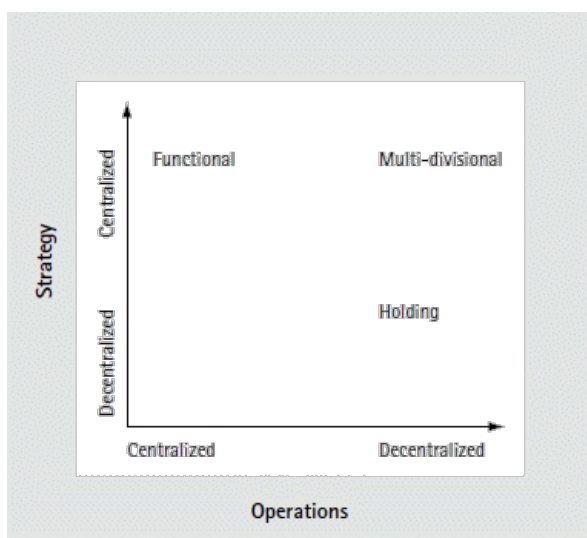


Fig. 27.5 Types of organizational structure

1. Responsibility for overall corporate strategy is clearly placed with corporate executives undistracted by operational concerns.
2. Operational complexity is reduced, because the business is divided into discrete, specialized, and smaller business units (divisions).
3. Responsibility for operational businesses is clearly with divisional managers, who can be held accountable for performance outcomes, reducing the need for central intervention.
4. Experience of running divisional business units is good training in the general management skills needed for running the corporation as a whole.

The way in which the centre actually operates its overall strategic control may vary. Goold and Campbell (1987) demonstrate degrees of central intervention and responsibility with their notion of 'strategy styles'. These range from a 'Strategic Planning' style, in which the centre takes a very directive role in strategy formation for divisions, to the 'Financial Control' style, which is hands-off regarding divisional strategies so long as they meet corporate financial objectives. In any case, the decentralization of operations and retention of ultimate strategic control at the corporate level remain the defining principles of the multi-divisional.

Recently, however, the sharp distinctions of the multi-divisional have come under some criticism (Ghoshal and Bartlett 1998a):

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1. Managements can become too detached from the operational realities of the businesses, simply running things 'by the numbers'.
2. Divisions divide: it is hard to create synergies and foster knowledge transfer between separate divisions each accountable for their own profit performance.

As we shall see when we discuss networks, these limitations can be partly addressed by new developments within the traditional multi-divisional structure.

In fact, it seems that nowadays, most large businesses have divisionalized structures of some sort, whether organized according to products or geography. Figure 27.6 shows the spread of the divisional organization in Europe over the second half of the twentieth century. Although the French and Germans still retain more loosely knit holding company structures, it is clear that in the major Western European economies the trend has been overwhelmingly towards the clear separation of strategic and operational responsibilities embodied by the multi-divisional structure.

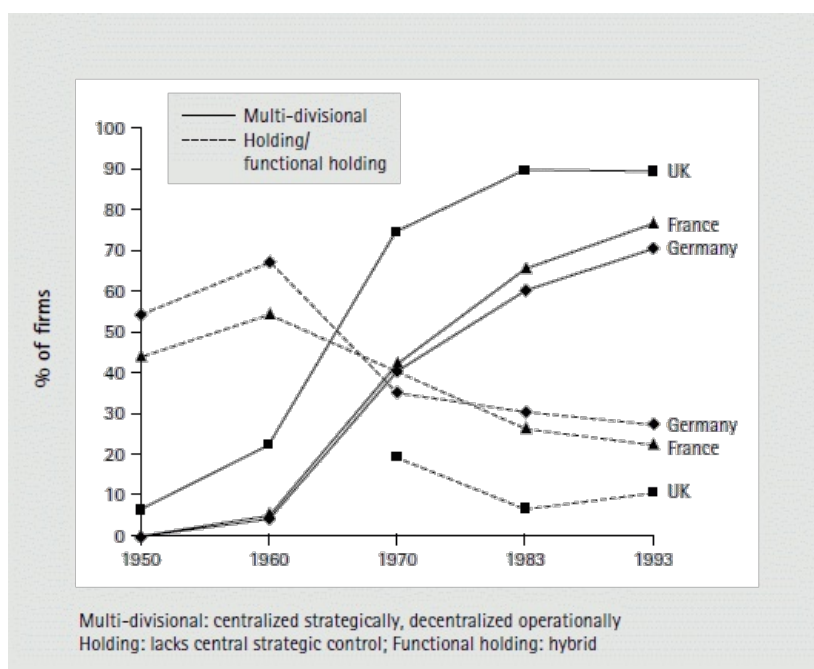


Fig. 27.6 Organizational structures in large Western European industrial firms, 1950–1993

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27.6 Internationalization and Structure

Internationalization is another key strategy of growth and again a critical contingency for structure. International operations add a whole extra dimension to the complexity of running a large, diversified business. Thinking here has been moving fast in recent years, particularly

in response to some critiques of the traditional multi-divisional structure.

The classic model is provided by Stopford and Wells (1972). Here the four main structural alternatives are as follows:

- (1) simple international division, where all international activities are grouped together and operate alongside traditional product divisions (see Wal-Mart example above);
- (2) area divisions, where different products are grouped within a particular area (see Unilever example above);
- (3) worldwide product divisions, where divisions are based upon products with worldwide scope, regardless of particular areas (see Ove Arup example above, excepting its East Asia operational board); and
- (4) a matrix ('grid') structure, in which area and product divisions are given equivalent status and managers on the ground report to both area and product divisional managers (see ABB example below).

In the Stopford and Wells model, the key contingencies for choosing between these structural alternatives are:

- (1) foreign product diversity; and
- (2) the percentage of foreign sales.

Thus, companies with high foreign sales but low diversity are best able to handle internationalization within area divisions. However, area divisions are unable to cope with high diversity: in this case, worldwide product divisions may be more appropriate. The matrix structure might be introduced to help where there is both high internationalization and high diversification (see Figure 27.7).

Ghoshal and Bartlett (1998b) add a further two key contingencies, more concerned with the sources of competitive advantage than the simple split of business by foreign sales or product diversity:

- **The need for global coordination and integration.** This is often important where there are major scale economies, so that the efforts of all countries need to be integrated, or where there is a need for coordinated responses to aggressive international competitors.

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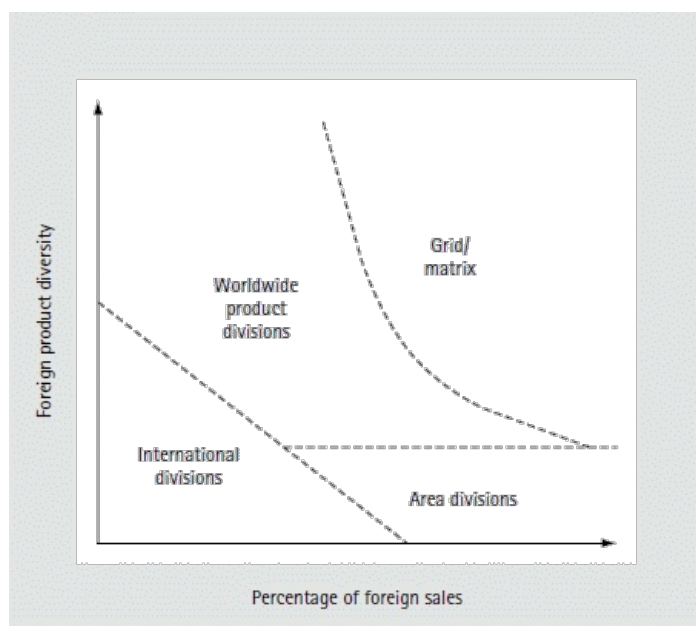


Fig. 27.7 International structures

- **The need for national differentiation and responsiveness.** This is often important where competitive advantage is to be had from adapting to local tastes and needs or building local relationships.

More recently, Ghoshal and Bartlett (1998b) have offered an alternative to the traditional kinds of divisional structure, one that builds on the notion of the matrix. This 'transnational' form is proposed as an 'integrated network'. The transnational's aim is to transcend the stark dichotomy between worldwide product divisions pursuing scale economies and area divisions based on local responsiveness. Areas and products are linked together in networks of mutuality and interdependence, rather than simple hierarchies of control and reporting. Network relationships facilitate the flow of knowledge, a key resource in contemporary competition. Global best practice can be informed by experience from around the world and in turn adapted to the particular requirements of local operations (see unileves, Box 27.2).

Figures 27.8 and 27.9 compare the three basic international structures: the headquarters is at the centre, national subsidiaries on the

periphery, with the shading indicating where leadership lies. In the traditional area divisional organization (termed 'multi-domestic' by Ghoshal and Bartlett 1998b), responsibility for product, marketing, and similar decisions rests with the geographical

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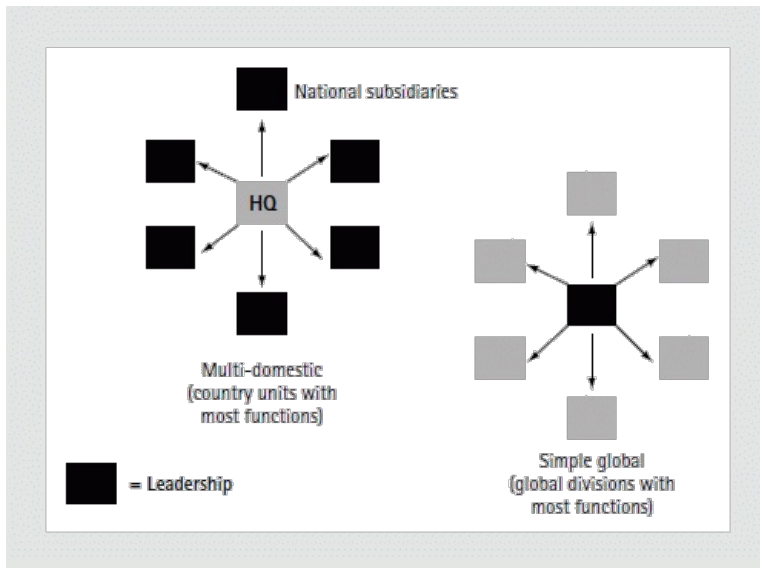


Fig. 27.8 Traditional structures for international business

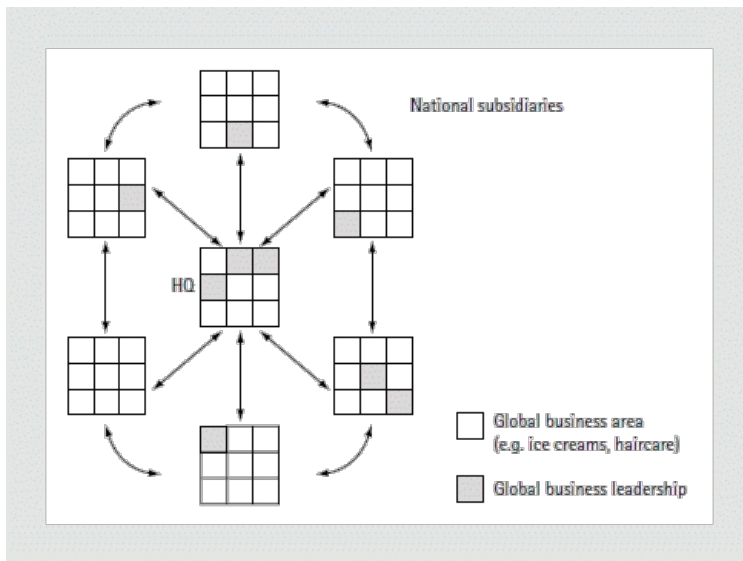


Fig. 27.9 The transnational structure

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areas, whether countries or regions. In the classic worldwide product divisional organization (simple global structure, in Ghoshal and Bartlett's terminology), leadership is at the central headquarters, with little discretion for geographical areas. As can be seen from Figure 27.9, however, leadership in the transnational is neither necessarily at headquarters (as in a classic worldwide product divisional organization) nor in the local areas (as in the classic area divisional organization). Instead, leadership is 'polycentric', based on many centres, typically determined according to the location of greatest expertise. Global business leadership for one particular category (e.g. ice cream) will be based in one territory; global leadership for another category (e.g. hair care) will be based in a quite different territory. Procter & Gamble's Organization 2005 provides a good illustration of such transnational 'polycentricity' (see Box 27.6 Polycentricity at Procter & Gamble). Instead of everything being either centralized to Procter & Gamble's headquarters in Cincinnati, or decentralized to

countries, global responsibility for particular product areas has been delegated to different centres across the world.

Box 27.6 Polycentricity at Procter & Gamble

By 1998, Procter & Gamble was finding itself repeatedly outpaced by its competitors—most gallingly by Unilever, whose Persil products were taking share and innovating faster than P&G's Ariel and Daz. The company announced its major reorganization, 'Organization 2005', under the auspices of its old chief executive John Pepper but to be taken forward in 1999 by new chief executive Durk Jager. P&G shifted responsibility for its seven core product areas from four regional units into seven global business units (GBUs). Baby care, health care and new ventures, beauty care and tissues and towels were to be centred at P&G's headquarters in Cincinnati; leadership for fabric and home care would go to Brussels; feminine protection in Kobe; and food and beverage would be based in Caracas. GBUs would have full responsibility for profits, product design, brand equity, and product sourcing. Market development organizations (MDOs) were to collaborate with the GBUs to tailor products to local markets, but would typically be centralized on a regional rather than national basis.

27.7 Networks and Structure

It is not just the experience of Western multinationals that has put a strain on traditional notions of the multi-divisional. Working in international markets and the success of Asian competitors in particular have exposed Western business thinking to alternative forms of organization—particularly the loose networks of

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overseas Chinese business and the keiretsu of Japan (Hamilton and Biggart 1988; Li 1998).

Neither the Japanese keiretsu nor Chinese networks rely upon the same clear hierarchies and hard-and-fast distinctions of traditional Western divisional organizations. Keiretsu members are typically linked through webs of mutual minority shareholdings. Keiretsu vary but typically these interlocking shareholdings are not large enough to give any company control but do provide a sufficient sense of interdependence and joint-destiny to ensure long-term cooperative relationships (Lai 1999). The Mitsubishi keiretsu, with roots back to the nineteenth century does not integrate its various members into a coherent structure. Instead, it is organized as a web of cross-shareholdings uniting thirty main companies—including Mitsubishi Motors, Mitsubishi Electric, Kirin Breweries, and Tokio Marine & Fire Insurance—with no clear strategic apex. The traditional keiretsu are now under pressure to change, but new ones may be emerging. Since 1981, Masayoshi Son has constructed a new Japanese-based keiretsu in the form of the Softbank Corporation. With substantial stakes in 300 Internet companies such as Yahoo!, E*Trade, and Buy-com, Softbank has become a 'cyber keiretsu' worth \$200 billion in February 2000 (see Figure 27.10).

Networks of various kinds are also important within the Chinese world. The particular modernization path of mainland China has produced what Boisot and Child (1996) describe as a form of 'network capitalism'. Both late imperial and Communist China were dominated by powerful states in which useful connections were essential to economic effectiveness. As China moved towards a more market-oriented economy during the 1990s, economic resources were decentralized but still heavily dependent on their linkages to state institutions. Although central direction

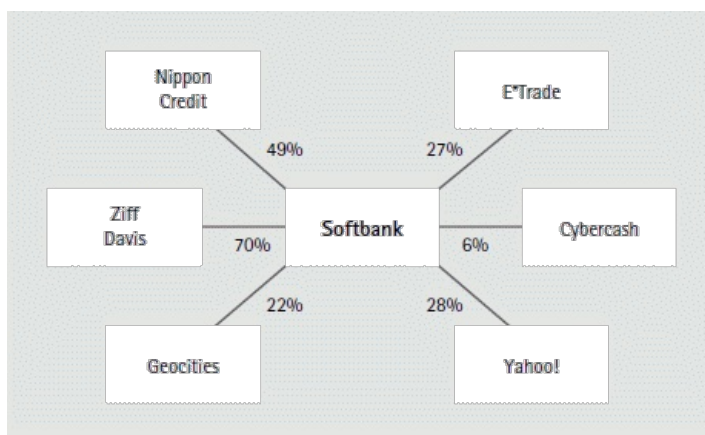


Fig. 27.10 Softbank: a cyber-keiretsu?

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reduced, it was valuable still for managers to retain old relationships between enterprises in order to assure quality and reliability. The dependability of these old relationships enables Chinese managers to rely upon loose networks of independent but relationship-based contracting instead of formal ownership and control as under Western notions of appropriate organization. Something similar happens even amongst the overseas Chinese, where networks may be based upon family membership, shared origins in the same village, or old friendships (Whitley 1999). Again, there is no unambiguous control, nor even necessarily clear boundaries between different enterprises, but there is a sense of trust and mutuality that allows for highly flexible and dynamic subcontracting and partnership.

Many Western firms are increasingly adopting similar kinds of network models in preference to the rigid integration of all activities within the formal structures of the organization itself. Lorenzoni and Baden-Fuller (1995) cite the prominent examples of Benetton, Nike, and Sun, all working strategically with networks of partnerships and subcontractors. The apparent success of these alternative Asian models, and experiments with the integrated networks of the transnational, now move some influential theorists to argue that business must go 'beyond the M-form' (Bartlett and Ghoshal 1993).

Hedlund (1994) has proposed an N-form model for organizing activities retained within the boundaries of the large-scale corporation. The term 'N-form' implies a strong reliance on networks and networking. He identifies seven key characteristics of the N-form:

- (1) putting things together, i.e. combining rather than dividing;
- (2) temporary constellations of people, rather than permanent structures;
- (3) the importance of direct interaction between people at the middle rather than indirect liaison through managers at the top;
- (4) lateral communication and dialogue rather than vertical communications;
- (5) top managers acting as catalysts, protectors, and architects of knowledge communication and investment;
- (6) strategic focus on activities with potential for combining knowledge, rather than diversification into fields with low potential for knowledge integration;
- (7) heterarchy (many centres of decision-making responsibility) rather than hierarchy.

A consistent feature of these N-form characteristics is the emphasis on knowledge, both as critical resource and as source of authority.

Hedlund's (1994) model is a challenging one, but may exaggerate the scale of contemporary organizational transformation. None of Hedlund's seven characteristics undermine the fundamental element of the M-form, the separation of strategic and operational responsibilities. Whittington and Mayer (2001) argue that N-form does not so much go 'beyond' the multi-divisional as develop its essential properties still further. As in Table 27.2, 'the network multi-divisional' is simply

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Table 27.2 Evolving types of multi-divisional

	Investor	Managerial	Network
Origins	1920s	1960s	1980s
Key resource	Capital	Scale and Scope	Knowledge
Key technique	Accounting Ratios	Planning	Exchange
Key function	Finance and Accounting	Corporate Planning	Human Resources
Structure shape	Pyramid	Pear	Pancake
Examples	DuPont	General Electric	ABB

Source: Adapted from Whittington and Mayer (1997).

another step in the evolution of the basic multi-divisional form. Whereas once financial capital and the physical resources of scale and scope were critical to the corporation, now it is the successful management of knowledge. In the 'network multi-divisional', exchange of knowledge is the key technique, rather than accounting ratios or traditional top-down planning. Human resource management is critical, for it is within people that knowledge lies, through people that it is created, and between people that it is exchanged. While the traditional 'investor-multi-divisional' took on the hierarchical shape of the pyramid, and the 'managerial multi-divisional' grew pear-shaped as new layers of middle managers proliferated for planning and coordination, the shape of the new 'network multi-divisional' is more like that of a pancake: flat, flexible, and with the emphasis on the horizontal and the circular rather than the vertical and the hierarchical.

The Swiss-Swedish engineering company ABB under the leadership of charismatic Percy Barnevik has often been advanced as an example of new forms of organization, beyond the M-form (Handy 1992; Ghoshal and Bartlett 1998a). In fact, its recent history appears to reaffirm the enduring merits of the traditional divisional organization (see Box 27.7 ABB—Beyond the M-form?). After a few years of experimentation with radical decentralization within a matrix or transnational framework, in 1998 ABB moved very much closer to a traditional product divisional structure, in which product divisions such as power generation or power transmission dominate over the traditional national holding companies.

Whether beyond the M-form or not, an emphasis on flexibility rather than rigidity is a common theme throughout all these accounts of contemporary organizations (Volberda 1998). Barnevik's successor at ABB, Goran Lindahl, has declared that the company's new divisional structure is not likely to stay in place for more than five years (Whittington, Pettigrew, and Ruigrok 2000). Contingency theory's static language of fit needs to be extended to a more dynamic language of 'co-evolution'.

Box 27.7 ABB-Beyond the M-form?

During the 1990s, European engineering group ABB was frequently cited as a new model of organization, an exemplar of Bartlett and Ghoshal's (1993) slogan 'beyond the M-form'. In August 1998, however, ABB announced a major reorganization, apparently taking the company back to a product divisional structure.

ABB was formed in 1988 from the merger of the Swedish ASEA group and the Brown Boveri company of Switzerland. At the time, this was the largest cross-border merger the world had ever seen, bringing together companies operating around the world and with combined employment of 170,000 people. Chief executive Percy Barnevik quickly imposed a matrix structure on the company. The two key dimensions were business segments (such as Power Generation, Power Transmission, and so on) and geography—initially based on countries, but rationalized over the 1990s into three main regions. A simplified version of ABB's matrix structure as it stood in 1997 is provided in the Figure 27.11(a).

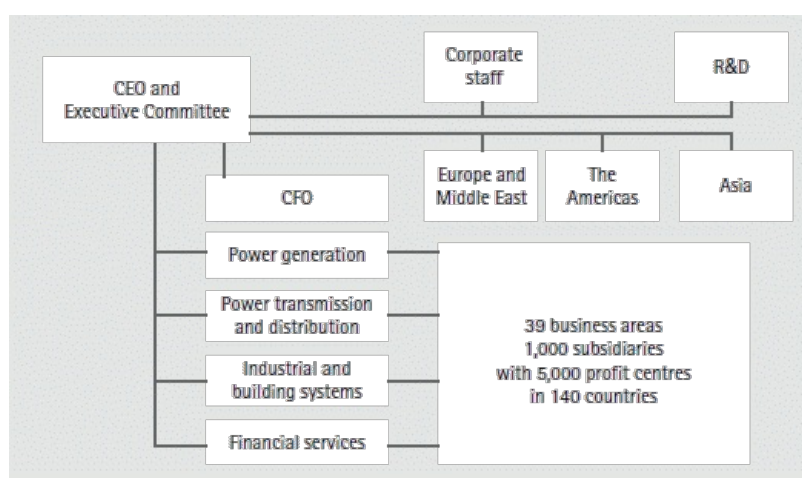


Fig. 27.11(a) ABB group organizational chart, 1997

However, this matrix was just the framework for Barnevik's structural innovation. He imposed a radical decentralization, so that the company was divided into 1,100 separate companies with an average employment of 200 people. These companies were in turn split into 3,500 profit centres, with about 50 people each. The small size of these companies and profit centres was designed to improve responsiveness and make every-one aware of financial performance. These small units were also necessarily interdependent, typically forced to share resources and knowledge in order to operate effectively. There would be little help from above. The new head office, in Zurich, had only 100 people. Corporate functions, such as Research & Development, were decentralized to the major companies and obliged to sell their services on an internal market. Essential roles for top management in this decentralized matrix were to foster an understanding of common purpose, to provide the infrastructure for cooperation and to facilitate cross-unit knowledge-sharing and learning. Cross-Company Teams and multi-level, multi-business Open Spaces meetings were two of the mechanisms designed to ensure networking across structural boundaries.

While lauded as a model in the business schools, ABB was experiencing considerable frustration with its structure by the late 1990s. Ruigrok et al. (2000) identify three principal problems. It was hard to push coherent segment growth strategies on a global basis; the internal market was creating transfer pricing disputes and delays; the regions were growing too powerful, creating 'regional principalities'. When a new chief executive took over from Barnevik, one of his first actions was to abolish the regions and restructure the business segments into seven, more focused product divisions. The ethos of cross-business cooperation was to continue, but, according to Ruigrok et al. (2000), within the structural framework of a 'network multi-divisional'.

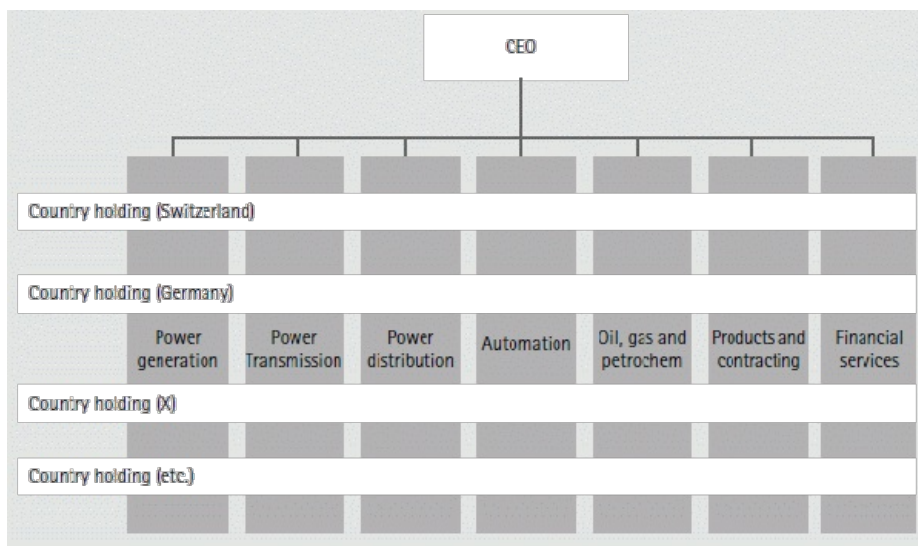


Fig. 27.11(b) ABB group organizational chart, 1998

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representing organizations as continuously responding to shifting demands put upon it by complex environments (Lewin, Long, and Carroll 1999). Co-evolutionary structural change and its implications are themes developed further in Eisenhardt and Brown's (1999) notion of organizational 'patching'.

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27.8 Dynamic Structures

Markets, technologies, and competition now are moving faster than ever before. As Galunic and Rodan (1998) note, for Joseph Schumpeter the production of new things depended essentially on the capability to combine and recombine existing materials in novel ways. At the heart of business innovation, therefore, lies the ability to reconfigure the existing organization to bring different parts together in new combinations.

According to Eisenhardt and Brown (1999), the importance of innovation and the contemporary pace of change requires a different view of organizational structure—not one of static solutions, but of constantly revised structural combinations. They call the process of continuous structural change 'patching'. Here the organization is regarded as a patchwork quilt, with patches capable of being constantly separated and recombined in order to find new and better overall patterns of organizing.

This kind of patching is an inescapable feature of life for many organizations. Consider Dell Computers. In 1994 Dell split into two segments: the transaction segment for small volume customers and the relationship segment for larger volume customers. By 1996 Dell had split into six segments. Eisenhardt and Brown (1999) report that since then Dell has announced a new split almost quarterly. Just to take one kind of relationship segment, commercial relationships, this is now segmented into corporate and small business, federal, state, and local government and non-profits, itself split into education, medical, and so on. A possibly less innocent account of constant structural change, highlighting the politics involved, is illustrated in Box 27.8 Microsoft 'Reorgs'.

Box 27.8 Microsoft 'Reorgs'

Michael Drummond (1999: 95–6), a close observer of software giant Microsoft, remarked on the company's notoriously frequent 'reorgs' as follows:

Microsoft constantly boils with internal reorganisations, often causing monumental disruptions and sweeping realignment of duties. [Bill] Gates is said to tolerate reorgs because they allow burned-out employees a chance to get recharged in new areas, which stokes competitive fires and keeps the giant company nimble.

Some joke that reorgs are used to force programmers to clear off their desks periodically.

The official reason for reorgs, however, is that by reallocating company resources, Microsoft can make better products. 'They're in response to market conditions and how we can best meet needs of customers', says Microsoft spokesman Tom Pilla. 'This is a very fast-paced industry. Any company that isn't constantly re-evaluating itself isn't going to be around very long.'

A reasonable explanation, but one that might not penetrate far enough. Others inside the company say many Microsoft reorgs were the result of massive political tectonics and power grabbing between Brad Silverberg's Windows group and Jim Allchin's Windows NT army.

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There is a crucial shift in thinking involved in 'patching': structural change is normal. The mentality should shift from striving for once-and-for-all structural design solution towards building the internal skills and capabilities required for coping with continuous structural change. Eisenhardt and Brown (1999) suggest several key characteristics required by organizations likely to be involved in constant processes of 'patching':

- Organizational modularity. It is easier to combine and recombine businesses that are discrete and stand-alone, rather than enmeshed in many relationships across the corporate portfolio or with the centre.
- Detailed and standardized metrics. It is easier to grasp opportunities for patching and to implement them if all businesses across the portfolio use standardized metrics that give real insight into the business and which facilitate quick integration.
- Compensation parity. Parity in compensation packages across the portfolio will ease the process of reassigning managers to new patching solutions and make them less insecure at the prospect of further changes in the future.

These are the more formal conditions for successful patching, but there are human ones as well. Schoonhoven and Jelinek's (1990) study of how managers cope with the constant changes of high-tech organizations like Hewlett-Packard, Intel, and Motorola provides pointers towards the kind of human capacities required of managers working with patching and repatching. Constant structural change requires:

- an attitude that change is normal, stability dangerous
- an embedded readiness to be self-critical and to search for improvement
- a culture of trust and cooperation, so that structural change is not reduced to turf protection and aggrandizement
- an ability to work with transitional and quasi-formal structures, such as teams, task forces, and dotted-line relationships.

We are reminded here that structures are about people, and work only so well as their constituents are capable.

27.9 The Future for Organization Structures

The need for organization structures does not look like going away in the coming years. So long as there remain large and complex organizations like

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Daimler-Chrysler or General Electric, good structures will be essential to competitive success.

However, if present trends provide at least a hint about the future, we can suggest some features of structure that will become more important. Structure will increasingly be designed around the creation and communication of knowledge within the corporation, rather than simple control. Inasmuch as they impede these critical knowledge processes, traditional structures based on control are likely to be self-defeating. Accordingly, structures will become flatter, more horizontal, and polycentric rather than rigid and hierarchical. The tension between segmentation into discrete units for purposes of accountability and interdependence for the sake of knowledge combination will be resolved more often in favour of the latter than the former. Networks of all kinds—internal and external, formal and not-so-formal—will become an endemic feature of organizational life. Centrality in networks rather than formal hierarchical position will become crucial to personal power and the capacity to get things done. Formal structures anyway will be constantly changing, as organizations go through continuous processes of patching and 'repatching'.

In these conditions, what will make the difference between a structure working well and a structure working badly will be not so much the structure itself as the skills and attitudes of the managers working within them (Whittington 2001). Structures will rarely have the time to bed-down, so that key relationships become clear and start to operate smoothly as experience grows. Managers will have to learn to manage plural and ambiguous relationships; they will have to cope with the uncertainties and disruptions of continuous structural change. Managers striving constantly to impose permanence, clarity, and order will make the new kinds of organizations fail. Managerial capacity to cope with structural change and ambiguity becomes a critical contingency in the design of organization structures.

This implies a different focus for both practice and research. Academics and consultants have searched before to define the most appropriate structures. But if structural solutions are temporary responses to shifting challenges, so they must constantly be moving towards imperfection. The future for thinking about organization structure is to worry less about the structures themselves, more about the people who must manage them. Structures will work better as we improve managers' capacities to cope with chronic structural inadequacies and repeated structural change. Managers need to become skilled performers of structure and structural change. Understanding and developing effective structural design *processes* (Goold and Campbell 2002) will be at least as important as advocating and formalizing particular design *solutions*.

The overall message is that structure will continue to be a central feature of organizational life. So long as that remains the case, the point is not to attack structure as 'bureaucracy', but to make structures work better (Adler 1999).

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27.10 Summary

Organization structure is a key element in the strategists' tool-kit. Without the right structure, strategies will fail. Contingency theory provides some initial guidelines for how structures should be designed. According to contingency theory, strategy, size, technology, and geographical scope are all likely to be critical in the design of appropriate structures. But contingency theory does not provide categorical or final answers. It will always take managerial judgement, both to assess the relative importance of one contingency over another where they conflict, and to appreciate changing contingencies over time.

Some contingencies seem to be becoming more important, for example knowledge-intensity. New ways are emerging to manage sometimes conflicting contingencies, for example the transnational in managing the tension between the global and the local. Contingencies are seen now to be embedded by much more complex and multilateral organizational relationships than before, as illuminated by new theories of configurations or complementarities. National cultures and institutions may modify contingent arrangements, and ideas such as the network may be extended from one regional context to international business more widely. Finally, the somewhat static designs of traditional contingency theory have to give way to the more dynamic processes of patching required by the fast-changing business world of today. Managerial capabilities in managing continuous structural change become increasingly important.

Nevertheless, the central message of contingency theory provides a fundamentally useful reminder. There is no ultimate, universal and ideal structural model—M-form, N-form, or whatever. Structures need to be tailored to the specific demands of an organization's situation. In a fast-paced world, enduring success will rely upon continuous co-evolution between structure and situation. Addressing the dynamics of structure should be high on the agenda of managers and academics alike.

References

Adler, P. S. (1999). 'Building Better Bureaucracies'. *Academy of Management Executive*, 13/4: 36–50.

Barham, K., and Heimer, C. (1998). *ABB: The Dancing Giant*. London: Pitman.

Barrett, F. J. (1998). 'Creativity and Improvisation in Jazz and Organizations: Implications for Organizational Learning'. *Organization Science*, 9/5: 605–22. [Link](#)

Bartlett, C., and Ghoshal, S. (1993). 'Beyond the M-Form: Toward a Managerial Theory of the Firm'. *Strategic Management Journal*, 14/Winter Special Issue: 23–46. [Link](#)

Blau, P. (1972). 'Interdependence and Hierarchy in Organizations'. *Social Science Research*, 1: 1–24. [Link](#)

end p.837

Boisot, M., and Child, J. (1996). 'From Fiefs to Clans and Network Capitalism: Explaining China's Emerging Economic Order'. *Administrative Science Quarterly*, 41/4: 600–29. [Link](#)

Burns, T., and Stalker, G. M. (1961). *The Management of Innovation*. London: Tavistock.

Castells, M. (1996). *The Rise of the Network Society*. Oxford: Blackwell.

Chandler, A. D. (1962). *Strategy and Structure: Chapters in the History of American Industrial Enterprise*. Cambridge, Mass.: MIT Press.

Cusumano, M. A., and Yoffie D. (1998). *Competing on Internet Time: Lessons from Netscape and its Battle with Microsoft*. New York: Free Press.

Derdack, T. (1988). *International Directory of Company Histories*. Chicago: St James Press.

Donaldson, L. (1996). 'The Normal Science of Structural Contingency Theory', in S. Clegg, C. Hardy, and W. Nord (eds.), *The Handbook of Organizational Studies*. London: Sage.

— (2000). *The Contingency Theory of Organizations*. Thousand Oaks, Calif: Sage.

Drummond, M. (1999). *Renegades of the Empire: How Three Software Warriors Started a Revolution behind the Walls of Microsoft*. London: Vision.

Egelhoff, W. G. (1988). 'Strategy and Structure in Multinational Corporations: A Revision of the Stopford and Wells Model'. *Strategic Management Journal*, 9: 1–14. [Link](#)

Eisenhardt, K., and Brown, S. (1999). 'Patching: Restitching Business Portfolios in Dynamic Markets'. *Harvard Business Review*, May–June: 72–81.

Fenton, E., and Pettigrew, A. (2000). 'Integrating a Global Professional Services Organization: The Case of the Ove Arup Partnership', in A. Pettigrew and E. Fenton (eds.), *The Innovating Organization*. London: Sage.

Galunic, D. C., and Rodan, S. (1998). 'Resource Recombinations in the Firm: Knowledge Structures and the Potential for Schumpeterian Innovation'. *Strategic Management Journal*, 19: 1193–1201. [Link](#)

Ghoshal, S., and Bartlett, C. (1998a). *The Individualised Corporation*. London: Heinemann.

— (1998b). *Managing Across Borders: The Transnational Solution*. (2nd edn) New York: Random House.

Goold, M., and Campbell, A. (1987). *Strategies and Styles*. Oxford: Blackwell.

— (2002). *Designing Effective Organizations: How to Create Structured Networks*. London: Wiley.

Gordon, J. E. (1978). *Structures, or Why Things don't Fall Down*. London: Penguin.

Greiner, L. (1998). 'Evolution and Revolution as Organizations Grow'. *Harvard Business Review*, 76/3: 55–68.

Hamilton, G., and Biggart, N. (1988). 'Market, Culture and Authority: A Configurative Analysis of Management and Organization in the Far East'. *American Journal of Sociology*, 94/Suppl: 52–94. [Link](#)

Handy, C. (1992). 'Balancing Corporate Power: A New Federalist Organization'. *Harvard Business Review*, Nov.-Dec: 59–72.

Hatch, M. J. (1999). 'Exploring the Empty Spaces of Organizing: How Improvisational Jazz Helps Redescribe Organizational Structure'. *Organization Studies*, 20/1: 75–100. [Link](#)

Hedlund, G. (1994). 'A Model of Knowledge Management and the N-form Corporation'. *Strategic Management Journal*, 15/Summer Special Issue: 73–90.

Hinings, C. R., Greenwood, R., and Cooper, D. (1999). 'The Dynamics of Change in Large Accounting Firms', in D. Brock, M. Powell, and C. R. Hinings (eds.), *Restructuring the Professional Organization*. London: Routledge.

end p.838

Lai, G. M.-H. (1999). 'Knowing Who You are doing Business with in Japan: A Managerial View of Keiretsu and Keiretsu Business Groups'. *Journal of World Business*, 34/4: 423–48. [Link](#)

Lewin, A., Long, C., and Carroll, T. (1999). 'The Coevolution of Organizational Forms'. *Organization Science*, 10/5: 335–550.

Li, P. P. (1998). 'Towards a Geocentric Framework of Organizational Form: A Holistic, Dynamic and Paradoxical Approach'. *Organization Studies*, 19/5: 829–62. [Link](#)

Lorenzoni, G., and Baden-Fuller, C. (1995). 'Creating a Strategic Center to Manage a Web of Partners'. *California Management Review*, 37/3: 146–64.

Markides, C. C. (1995). *Diversification, Refocusing and Economic Performance*. Cambridge, Mass.: MIT Press.

Milgrom, P., and Roberts, J. (1995). 'Complementarities and Fit: Strategy, Structure and Organizational Change in Manufacturing'. *Journal of Accounting and Economics*, 19: 179–208. [Link](#)

- Miller, D. (1986). 'Configurations of Strategy and Structure: Towards a Synthesis'. *Strategic Management Journal*, 7: 233–49. [Link](#)
- Pascale, R. (1984). 'Perspectives on Strategy: The Real Story Behind Honda's Success'. *California Management Review*, 24: 47–72.
- Peters, T. (1992). *Liberation Management: Necessary Disorganization for the Nanosecond Nineties*. London: Macmillan.
- Pettigrew, A., Whittington, R., van den Bosch, F., Melin, L., Ruigrok, W., Sanchez-Rundes, C. (2002). *Innovative Forms of Organizing: Complementarities and Dualities*. London: Sage.
- Pugh, D., and Hickson, D. J. (1976). *Organization Structure in its Context: The Aston Programme 1*. Farnborough, Hants: Saxon House.
- Ruigrok, W., Achetenhagen, L., Wagner, M., and Rüegg-Stürm, J. (2000). 'ABB: Beyond the Global Matrix towards the Network Multi-divisional Organization', in A. Pettigrew and E. Fenton (eds.), *The Innovating Organization*. London: Sage.
- Schoonhoven, C. B., and Jelinek, M. (1990). 'Dynamic Tension in Innovative High Technology Firms: Managing Rapid Technological Change through Organizational Structure', in M. von Glinow and S. Mohrman (eds.), *Managing Complexity in High Technology Firms*. Oxford: Oxford University Press, 90–115.
- Stopford, J. M., and Wells, L. T. (1972). *Managing the Multinational Enterprise: Organization of the Firm and Ownership of Subsidiaries*. London: Longman.
- Volberda, H. W. (1998). *Building the Flexible Firm: How to Remain Competitive*. Oxford: Oxford University Press.
- Waterman, R. H., Peters, T. J., and Phillips, J. R. (1980). 'Structure is not Organization'. *Business Horizons*, 23/3: 14–26. [Link](#)
- Whitley, R. (1999). *Divergent Capitalisms*. Oxford: Oxford University Press.
- Whittington, R. (2001). 'Corporate Structure: From Policy to Practice', in A. Pettigrew, H. Thomas, and R. Whittington (eds.), *The Handbook of Strategy and Management*. London: Sage.
- and Mayer, M. (1997). 'Beyond or Behind the M-Form? The Structures of European Business', in D. O'Neal, H. Thomas, and M. Ghertman (eds.), *Strategy, Structure and Style*. Chichester: Wiley.
- (2001). *The European Corporation: Strategy, Structure and Social Science*. London: Oxford University Press.

end p.839

- Whittington, R., Pettigrew, A., and Ruigrok, W. (2000). 'New Notions of Organizational "Fit"', T. Dickson (ed.), *Mastering Strategy*. London: Financial Times/Prentice Hall.
- Peck, S., Fenton, E., and Conyon, M. (1999). 'Change and Complementarities in the New Competitive Landscape'. *Organization Science*, 10/5: 583–600. [Link](#)
- Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.
- Woodward, J. (1965). *Industrial Organization, Theory and Practice*. London: Oxford University Press.
- Zenger, T., and Hesterly, W (1997). 'The Disaggregation of Corporations: Selective Intervention, High-Powered Incentives and Molecular Units'. *Organization Science*, 8/3: 209–22. [Link](#)

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28 Strategy Innovation

Peter J. Williamson

28.1 Why Strategy Innovation?

Ask yourself the question how many corporations have been able to maintain shareholder returns in the top quartile of the peers in America's S&P 500 or Britain's FT 100 each year for an unbroken run of five years or more? Since the early 1990s, the answer is less than 5 per cent of the corporations in each index. Over the past few decades the number of firms able to sustain consistently above-average shareholder returns over an extended period has been declining.

These are humbling statistics. They suggest that there are powerful processes at work that undermine the capacity of almost any single business model (a systemic combination of value and cost drivers) to go on creating value indefinitely. We call this process 'strategy decay'. As we will see below, strategy decay may occur because competitors undermine the early differentiation in a business model by imitating it. It may occur because changes in technology or customer taste or behaviour render an existing business model obsolete as a way of making money. Competitors emerge with the proverbial 'better mouse trap'. Changes in customers' lifestyles eliminate demand for the product or service. Innovative competitors completely transform the economics of the business, as we have seen in the case of Direct Line insurance, dealing a body blow to transitional higher cost and/or less convenient ways of providing the product or service.

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In the face of strategy decay, a corporation can only go on generating new wealth for its shareholders (or ultimately survive) if it can go on renewing its business models in such a way as to create new and distinctive sources of competitive advantage.

The process of business model renewal is what we term 'strategy innovation'. It is not simply about improvements to a product line or service offering or incremental reductions in costs. Strategy innovation constitutes a fundamental innovation in the company's business model; a significant change in the way it makes money that opens up new sources of competitive advantage.

In practice it is sometimes difficult to draw a precise line between product, service, or technological innovation, on one hand, and strategy innovation, on the other. However, a useful rule of thumb in identifying whether something is a strategy innovation is to ask whether or not it constitutes a change to some combination of three dimensions of a business model:

- who the company serves (a change to its customer base)
- what the company offers to its customers (a change to the offering)
- how the company provides value to its customer (a change to the activity chain and the value and/or costs associated with each activity).¹

¹ This definition was proposed by Markides 2000.

Examples of strategy innovation would include Dell Computer's strategy of combining on-line ordering and specification with the capability to offer the buyer a computer customized to their particular needs; Monsanto's introduction of genetically modified seeds that were selectively resistant to its proprietary herbicide (which allowed a change in the proposition to farmers as well as requiring a fundamental shift in the activity chain that necessitated the integration of the seed supply chain with that for herbicides); and Enron's morphing of its gas pipeline business into an integrated energy trading operation that replaced a simple supply chain with a sophisticated market for energy that flexibly matched customers and suppliers (but also led to an increase in risk that was ultimately fatal).

This kind of strategy innovation is the antidote to the decay of existing business models. It provides new sources of competitive advantage. But just because a strategy is innovative, does it mean that it will create value and wealth? Success comes only from matching the right strategy innovation to a particular set of market conditions at the right time. So even if a corporation becomes successful at churning out a series of strategy innovations before its existing business model reaches the point of deep decay, it may not generate shareholder value. To beat the curse of strategy decay, it needs to launch a strategy innovation that catches the wave of a dynamic market at the right time. Since market evolution, and the changing technological, consumer behaviour, and competitive forces that drive that evolution are often highly uncertain, launching the right strategy innovation at the right time is obviously a challenging task.

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In this chapter we explore how a company can go about improving its chances of successfully meeting this challenge of continually renewing its business model by creating a flow of profitable strategy innovations launched into the market at opportune times. The first step towards meeting this challenge is to understand how far and how fast a company's established strategy is decaying and therefore how urgently the launch of a strategy innovation is required.

28.2 Measuring Strategy Decay

Most of us put off going to the dentist as long as possible: it is one of those things we never quite get around to. Those well-polished pearls look fine from the outside because the decay is within. When the pain comes, it comes with a 'bang' because that unseen decay is already so well advanced it has hit a sensitive nerve. Strategy decay works much the same way because traditional measures of performance frequently tell us everything is fine, until we hit the nerve and our world starts falling apart. Worse still, even when the decay is already severe, workhorse metrics like ROCE and ROI may be signalling that our strategy is working better than ever!

An important reason why traditional metrics are not good at warning of strategy decay is that when we measure profitability we do not ask whether the profit is the result of creating new value or whether we are just milking out the positions we, or our management forebears, have previously put in place. In other words, how much of today's profits are coming from creating new value and how much of our reported profits are really the rents we are collecting on the assets we inherited?

Remember all those companies who were riding on a profit wave of pagers in the early 1990s? As new customers signed up, sales soared while the high fixed costs of building the pager network were spread ever more thinly. Profits leapt. Once the sign-on discounts started to expire and customers paid full price, profits continued to a steady upward trend. Having established their customer base, some operators decided to raise the tariffs. Both absolute earnings and profitability rose still further. Management was congratulating itself on the performance of their brilliant strategy.

But underneath, the danger signs were already plainly evident for those who knew where to look. Profits were rising fastest at the very time that the rate of new subscriptions had begun to go slow. A slowdown in new subscriptions was great for profitability because there were fewer people on introductory discounts, so total

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profits rose rapidly. Then the installed base started to erode as the number of defectors to the new, mobile telephone technology exceeded the rate at which new customers signed up. Yet profits continued their upward trend as the price increases to 'leverage our installed base' kicked in. Management and shareholders were sanguine, drawing confidence from traditional profit metrics like ROS and ROCE that said everything was going swimmingly.

In fact, as the champagne corks popped, strategy decay was already well advanced. Without realizing it, those pager companies had moved from creating new wealth to milking out their existing base. As subscriber defections began, the same fixed costs had to be spread over fewer users. But the resulting rise in unit costs had been masked by the expiry of sign-on discounts and tariff hikes—sources of the milk they were siphoning off. Profits steadily grew even though the underlying economic engine had already gone quietly into reverse; a negative spiral of rising unit costs had taken root.

One fateful day management woke up and found that the reliable growth in profits as sign-up discounts lapsed was no longer there. With a falling subscriber base, price increases were out of the question. With no way of increasing revenues and a heavy base of fixed costs, profit growth stalled. The milk had run out. As the impact of defections accumulated, profits then went into reverse. The unseen strategy decay had eventually reached the nerve.

Now you may believe that strategies in many industries do not decay; one basic strategy has served the same company for many years or even decades. But, consider the following simple statistic: how many of the companies in the S&P 500 managed to consistently deliver total shareholder returns (TSR) in the top quartile for more than five years to 1999? The answer is 9 out of 500.

Clearly, strategies do decay. If we cannot rely on traditional profit measures to tell us when a strategy is decaying how do we know? What are the early warning signs of strategy decay?

28.2.1 Four Measures of Strategy Decay

Four basic measures can be used to help diagnose strategy decay:

- (1) divergence between revenue growth and earnings growth;
- (2) rising ROCE but falling P/E multiple;
- (3) a high ratio of rents to new value creation; and
- (4) convergence of strategies in the industry.

If a company scores in the danger zone on these measures, especially where several point in the same direction, it should be concerned that its strategy is showing signs of decay.

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28.2.1.1 Divergence between Revenue Growth and Earnings Growth

For a year or two, maybe even a few more, profits can grow very much faster than revenues. We often see this phenomenon in the turnaround of companies in trouble. The same thing happens when margins rise either through higher prices or squeezing costs. But few companies are in the enviable position that they can go on getting price increases over and above the rate of inflation in their costs year after year for decades.

The plain fact is that there is a limit to how much profit even the best managed, most efficient company can squeeze out of any fixed amount of revenue. (A fact economists call the law of diminishing returns.) As a member of the US Federal Reserve once put it so beautifully: 'things that cannot go on forever do eventually stop.'

Therefore if a company's revenue growth has been consistently falling behind its profit growth year after year, it needs to worry that it will soon hit the limit. The capacity of its strategy to generate future profit growth will be in deep decay.

The same holds true if revenue is growing faster than profits year after year. That means the company is working a bigger and bigger operation successively harder for a smaller and smaller increment to the bottom line. Its wheels are spinning. Again the capacity of its strategy to generate future profit is in decay.

Put the things together and it becomes clear that if the *ratio* of a company's earnings growth to revenue growth diverges a long way from '1' for an extended period (say five or ten years), then its strategy is probably decaying. Profits growing at a slightly faster clip than revenue is good, but when you see earnings growth or revenue growth outstripping the other year after year that should be a warning sign.

Now, of course, the test 'a long way from 1' is inherently subjective. So to understand how to use the measure in practice, we need to look at some data.

Consider these data on the ratio of profit growth to revenue growth over the five years to 1998. For companies like Danone (1.08), Glaxo Wellcome (1.00), Loreal (0.94) or Nokia (1.14), and Tesco (0.89), earnings and revenue were pretty much in balance over the medium term (the ratio was close to 1).

But over the same five-year period some companies saw earnings growing at tens or even hundreds of times faster than revenues: like Bass (25 ×), Cadbury Schweppes (17 ×), GKN (25 ×), or KLM (38 ×). Ask yourself how long that can go on? Squeezing dramatically more out of the same revenue base. It looks as if they are milking out the businesses with a fire hose. This is a warning sign for strategy decay. The capacity of the strategy to generate earnings growth in the future looks extremely doubtful.

On the other end of the spectrum, we have companies seeing rapid growth in revenues, while profit growth has stalled so that their ratio of earnings growth to revenue growth in the five years to 1998 is well below 1. Examples include British Telecommunications (0.26), Fiat (0.53), and Lafarge (0.39). Just as for those

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companies for which the ratio was very high, these low statistics are also a sign of strategy decay. The value creation potential of these companies' strategies is just about spent; they can grow revenue, but only by practically 'giving incremental products and services away' at close to zero profit.

The bottom line: if a company's ratio of earnings growth to revenue growth consistently diverges from '1' by a large margin, either way above or way below (say, over 2 or less than 0.5), then there are probably problems round the corner because its strategy is decaying from within.

28.2.1.2 Rising ROCE but Falling P/E Multiple

When a company breaks yet another record in the return it delivers on its capital employed (ROCE reaches new heights), the managers may be congratulating themselves. But if, at the same time, its price/earnings ratio (P/E) is falling, the market is telling them something: 'You may be earning record profits now, but we are going to mark down your share price because we don't think you can continue to deliver this rate of return long term.' That is another way of saying, 'We believe your strategy is in decay.'

The reason is simple: if a company is delivering strong earnings on its assets today, but the multiple of those earnings investors are willing to pay for its shares (which are a claim on your future earnings) is going down (a falling P/E), it can only be for one of two reasons. Either investors think the risk associated with those future earnings has increased; or they are expecting your future earnings to tail off. In either case, their assessment is that your strategy is in a process of decay.

Again, consider the data depicted in Figure 28.1. Cadbury Schweppes, Cable and Wireless, and Pirelli increased their ROCE consistently between 1993 and 1998, but their P/E ratio fell during this period. What are investors telling these companies? You may be squeezing

more and more profits out of your strategy, but you are draining blood from the veins, year on year your strategy is decaying further.

Worse still, of course, if both ROCE and P/E ratio are falling. This was the case for companies like Fiat, TI Group, and De La Rue. In this case, investors were not only seeing a decline in earnings today, they were telling the company they expect its returns to decline in the future as well.

The message is clear: if a company is earning more on its capital but its P/E has stalled or is declining, that company's strategy is probably decaying. If both ROCE and P/E are falling, its strategy is, well, 'decayed'.

28.2.1.3 A High Ratio of Rents to New Value Creation

The third measure of strategy decay is to take a hard look at whether you are a creator of new value or a rent collector. Again, looking at traditional profit measures does not give us any answers to this question: to a historic cost accountant, value creation and rents are all the same, they both represent 'profits'. But from a strategic

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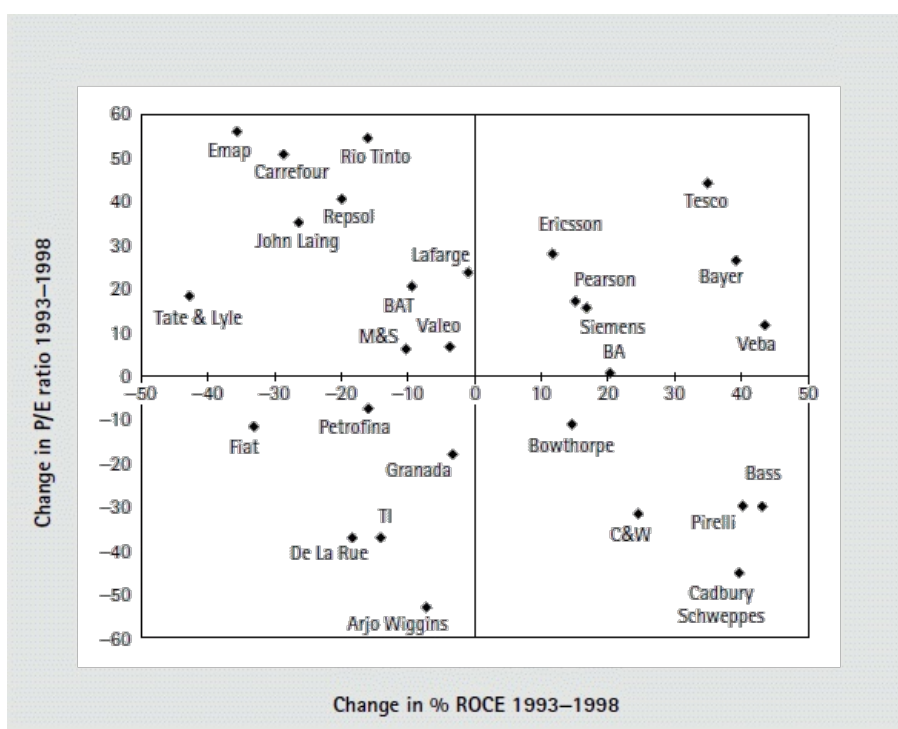


Fig. 28.1 ROCE, P/E, and strategy decay

standpoint, rent collection is very different from value creation. This is because most strategic assets on which a company collects rents sooner or later begin to depreciate. When this happens, the profit-generating capacity of a strategy that is based on those strategic assets begins to decay. Once the property begins to collapse, so do the rents.

It is not an easy task to judge how much of any year's profit comes from rents versus new value creation. But, even if this cannot be done with pinpoint accuracy, it is a worthwhile discipline. Filling in the following table is a first step:

Source of Rent (Strategic Asset)	% of Current Profit
Patents	
Installed base	
Long-term contracts	
Competencies more than 5 years old	
TOTAL	

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If the total number you come up with is more than 50 per cent, then the majority of your reported profits are rents. Nothing wrong with

being a good rent collector, as long as you are building new strategic assets and creating new value for customers at the same time. If you are not replenishing and extending the asset stock, then you are living off a legacy that, one day, will run out. The higher that percentage of rents gets, the more you need to worry about how long those old strategic assets will go on yielding those rents in the face of depreciation and expiry. A high proportion of rents in current profitability, therefore, is another danger sign of potential strategy decay.

28.2.1.4 Convergence of Strategies in the Industry

In a survey of more than 500 CEOs, sponsored by MCI, a majority of corporate leaders said that the strategies of the industry leaders had become more alike, rather than more dissimilar over the past several years. This should be a red flag. Remember back to Economics 101 and that idea of 'perfect competition'—everyone in the business following an identical strategy. You may also remember the textbook result: every company in the industry only made just enough profit to survive and no more. It is the business equivalent of a subsistence economy.

The final indicator of strategy decay, therefore, is convergence between a company's strategy and those of its main competitors in the industry. One ready indicator of convergence is the degree to which the standard deviation in operating margins across competitors is declining. Two forces are at work to make this happen. First, competitive imitation means that the major companies end up offering products and services where there is little for consumers to choose between; hence they buy and price, the industry becomes 'commoditized' and margins decline towards a common minimum. Second, higher cost, less competitive firms are either forced out of the business or are acquired so that scale and operating efficiency become prerequisites simply to remain in the business. As costs find a lower floor, there is pressure to lower prices in the quest for marginal volume. Margins are squeezed.

Figure 28.2 presents the data for the computer software and insurance broking industries. In insurance broking the strategies of the main players seem to be converging; operating margins are becoming more similar and the average margin is falling. By contrast, in industry computer software, the players seem to be coming up with innovative strategies which push their operating margins out above those of competitors.

28.2.1.5 A Composite Measure

If we put these four indicators of strategy decay together, you can make an assessment of a company's Strategy Decay Rate (SDR)—a measure of how fast your strategy is running out of steam. If you average a score of 'somewhat' or 'yes', you are in the danger zone.

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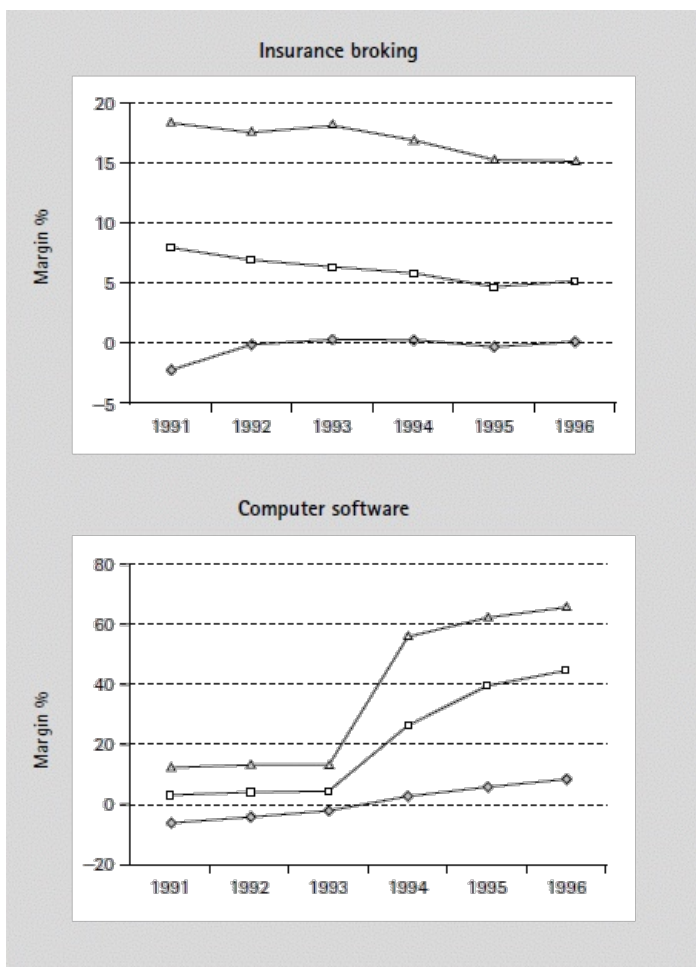


Fig. 28.2 Strategy convergence and divergence

Assessing whether your strategy is decaying

Indicator

No Somewhat Yes

Ratio of earnings to revenue growth over five years diverges from 1 by a wide margin (> 2 or < 0.5)

Rising ROCE and falling P/E (or both falling) over last five years

High percentage of my profits are 'rents' on old strategic assets

Standard deviation in margins across competitors in my industry is below average

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So if a company's strategy is decaying, what can it do about it? Even more importantly, what actions can a company take to begin renewing its strategy before strategy decay becomes too advanced? One important answer to these questions is to build and actively manage a rich portfolio of strategic 'options on the future'.

28.3 Strategy as Options on the Future²

² For a more detailed discussion of this topic, see Williamson 1999.

In this section we begin by illustrating what happens when a company that lacks a sufficient portfolio of strategic options faces strategy decay. We then discuss what a strategy that embodies a coherent portfolio of options for the future might look like, and sketch a process managers can use to develop this kind of strategy.

28.3.1 Lack of Options as a Powerful Constraint on a Company's Future

Successful companies often get ahead of their competitors by focusing their efforts on a particular segment of customers or geographic market so that they come to know more about the behaviour and needs of these potential buyers than anyone else. They design a profit-generating engine, based on a particular price, margin, and cost structure, that is in turn underpinned by a set of investments in the

capability to source, produce, distribute, and support a product or service that these customers value. Over time, this profit engine is continually fine-tuned, often reaping economies of scale, scope, and learning along the way.

The history of the Woolworth Corporation provides a good example of this process. Frank Winfield Woolworth, who founded the company in 1879, pioneered the idea of selling merchandise at no more than five cents. He refined this 'five-and-dime' profit engine to become a finely-tuned general merchandising machine. Initial concepts of 'no-frills' service, focus on cheap products, and items that were non-perishable, provided the core. The Woolworth Corporation subsequently developed its competencies in managing a very wide product range, while keeping stock-turn high by carrying only the most popular, 'standard' varieties of each product; competencies in site selection and development; and the logistics to reap economies of scale from a chain of stores.

When he died in 1919, Woolworth boasted a chain of 1,081 stores with sales of \$119 million (an incredible figure for its day). The power of the formula was reflected in

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the company's headquarters building at 233 Broadway in New York which was, at 792 feet, the world's tallest building until the Chrysler building was completed in 1930. After World War II the company continued to improve this winning formula, adding new competencies in the management of advertising, consumer credit, and self-serve, and site selection and management in the new retailing environment of the suburbs of American cities.

Woolworth's strategy had the advantages of focus: it was able to deepen its existing competencies and incrementally expand both its competency base and its knowledge of different market environments (such as suburban retailing). However, competitors were developing retail formats that required both competencies and market knowledge that were outside the 'box' in which Woolworth was operating. Competitors like Wal-Mart were introducing general merchandise, discount superstores, on one flank, and speciality 'category killers' (like Toys-R-Us) were attacking, on the other.

Despite seeing its overall sales figures declining in real terms, year after year (recall our measures of 'strategy decay' above), Woolworth failed to invest in creating the new capabilities or understanding of different market behaviours that would give it options to expand its business into either superstores or speciality retailing. When, in the late 1980s, Woolworth eventually did try to respond with its own discount and speciality stores, it ran into a hidden constraint: while the strategy made sense, it had not built the depth of capabilities and market knowledge necessary to gain competitive advantage in these new areas against determined rivals. Woolworth, in fact, did not really have the option to change its strategy quickly, since it had not invested in creating new capabilities and knowledge outside its existing formula. Thus, for example by 1995, Woolworth was forced to sell its new speciality stores 'Kids Mart' and 'Little Folks', established in the early 1990s, because of poor profitability. The company had become a prisoner of its past.

In 1993 Woolworth closed 400 stores in the United States and sold its 122 Canadian Woolco stores to Wal-Mart. In 1997 Woolworth closed its last general merchandise store in the United States. It had refined and polished its economic engine and deepened its narrow range of competencies into almost perfect extinction. By and large, the company had invested in new strategic options too late given the time necessary to build the stock of competencies and knowledge of new formats necessary to give it a launching pad to pursue a new strategy, combined with the fact that, by then, competitors were already well established.

In fact, Woolworth had invested in one new strategic option that arguably saved the company when, in 1974, senior managers had decided to back an experiment into speciality retailing branded 'Foot Locker'. The pilot in speciality retailing lay more or less dormant as a small venture for almost a decade. But when growth in the market took off, in the wake of growing health consciousness among the American population in the 1980s, Woolworth was able to exercise this option to rapidly build a chain of athletic-shoe stores, using the new capabilities in retailing of

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athletic footwear and its knowledge of this market segment it had already accumulated in the Foot Locker venture. It subsequently introduced new formats, including Lady Foot Locker in 1982 and Kids Foot Locker in 1987. Over time, Woolworth opened over 7,100 of these speciality stores and in June 1998 it changed its corporate name to 'Venator Group', reputedly to convey an image of virile sportsmen. In some ways this is an example of successfully repositioning a company whose core business had become obsolete. But, in fact, Woolworth paid a high price for failing to recognize the hidden constraint on its strategy choices and under-investing in the creation of new strategic options soon enough. It is now a much smaller company, a contraction perhaps best epitomized by the fact that it now occupies only half the floors in that famous New York skyscraper, which it sold in April 1998.

From the late 1980s, the company had set itself challenging new missions. But in the quest to achieve them, its managers kept bumping up against two important constraints: they did not really understand the different set of customers they would need to attract to achieve a new, broader strategy, nor did they have the capabilities to deliver the advantages necessary to compete with rivals who were already

established. When they decided to respond to loss of sales caused by changes in the market that were, by then, well established, managers at F. W Woolworth kept hitting the dual constraints of narrow capabilities and lack of a deep understanding of new potential markets. They had expanded their ambitions, but they had not invested in enough real options soon enough to replace their dying profit engine. They were caught in the box depicted in Figure 28.3.

To avoid becoming a prisoner of these hidden constraints, it is necessary for a company to maintain a portfolio of new options for its future by building new capabilities and simultaneously expanding its knowledge of new market segments and customer behaviour.

These options on the future may take various forms. The option may take the form of:

- (1) an idea for a new opportunity that has been thought through, but not tested;
- (2) an experiment or pilot that has been conducted to test a new business model or market proposition; or
- (3) a venture where the pilot has been launched as a stand-alone business, but not yet scaled up, or rolled out into a fully fledged division.

The choice of whether to maintain an option on the future as an idea, as an experiment, or as a business involves a trade-off between cost, on one hand, and speed, on the other. If the option is maintained as an idea, we minimize the cost of the option—maintaining an idea does involve much investment. But the speed with which we can exercise that option and its power as a launching pad for a new business is limited by the fact that we have not tested the idea or developed it into a business venture. By contrast, if we decide to develop every option we want to maintain in our portfolio right through to the point where it has been launched as

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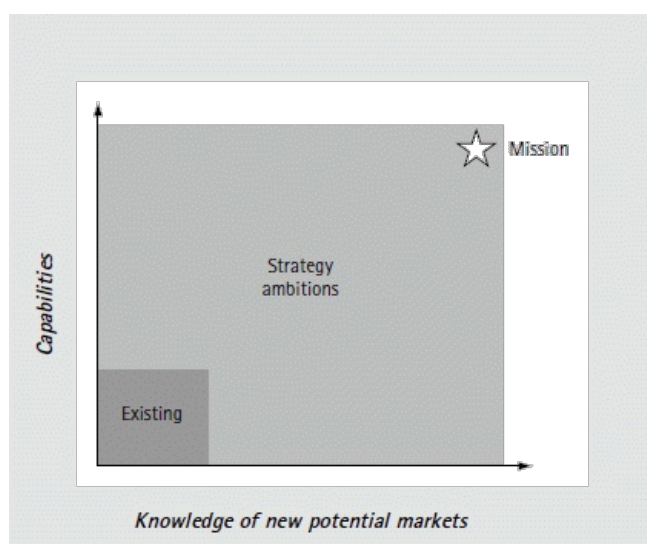


Fig. 28.3 The hidden constraints: narrow capabilities and market knowledge

a venture, the total investment required could be huge. Developing the option through to the venture stage, however, has the advantage that it will be much quicker to scale up when we detect the environment makes it opportune to exercise the option by scaling it up into a fully fledged business (as Woolworth did when it decided to scale up the Foot Locker venture into a business of over 7,000 stores almost a decade after its initial pilot of a single store). As we will see later, it makes sense for a company to maintain a portfolio of options on the future at different stages of development depending on their assessment of the trade-off between investment cost and the likely benefits of positioning themselves to react faster than the competition.

Provided the outcome of uncertain developments in the market falls within the range of its portfolio of options, the company will be in a position to exercise one or more of the options that turn out to be relevant. Exercising such an option will allow it to reposition its strategy rapidly when changes in the market environment make this necessary in a way not otherwise open to it. Thus, by creating strategic options, some of which turn out to be relevant to the future, the company will be in a position to outperform its competitors who have not made these investments. Alternatively, it will be in a better position to close the competitive gap with rivals who, for historical reasons, already possess the necessary capabilities and market knowledge (because, for example, they happen to be serving a particular segment of the market that subsequently 'takes off').

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With a view to specifying the different processes that a company can use to expand its real options, it is convenient to distinguish

between 'capability constraints' and 'market knowledge constraints' as depicted by the boundaries of the 'existing' box in Figure 28.3.

The options available to some companies are not seriously constrained by their stock of market knowledge. Through various processes described later, they have created a large internal pool of knowledge about potential new customers and competitive behaviours. This may include knowledge about new types of potential users of the company's products or services, new geographic segments, existing users whose needs and buying behaviour are changing, or competitors who are trying to 'change the rules of the game'. The dilemma these companies face is that having market knowledge, by itself, can still leave the company with too few ways to exploit that knowledge (other than, perhaps, by selling it to someone else). This might be termed the problem of the 'trader': a company aware of a great deal of potentially valuable market information, but incapable of using that information to create value, except by trading either the information or using it to arbitrage some commodity (see Figure 28.4). Obviously there are profitable companies based on trading information, but for most firms, this set of options will be too narrow to allow them to leverage much of their existing competence base and therefore to support an adequate return on their existing asset and skill bases.

To avoid the problem of a set of capabilities that is too narrow to exploit the knowledge of different markets and customer behaviours that such a company continues to amass, it needs to find a way to systematically expand its pool of value-creating

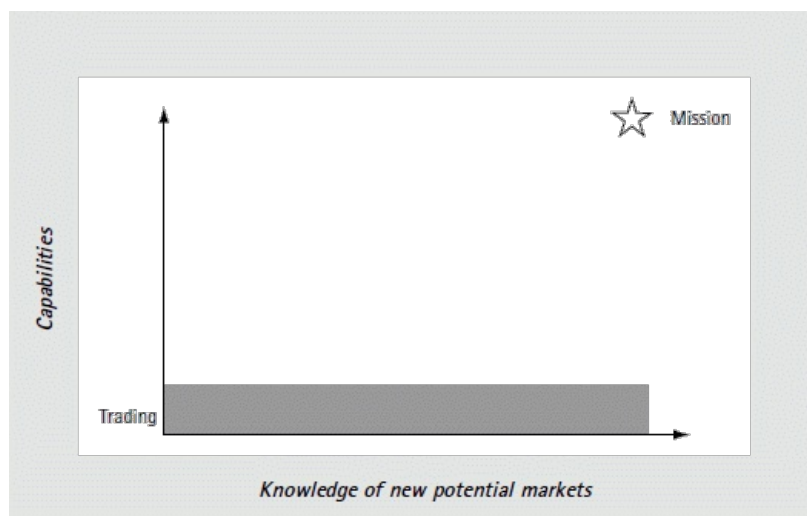


Fig. 28.4 The trader—'aware but incapable'

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capabilities (adding, for example, the capability to manufacture products, or deliver services that utilize that market knowledge). A company that arguably found itself in this situation is the veritable British trading house, Inchcape. Its geographic reach extended from South-East Asia through to the Americas, the Caribbean, India, Europe, and Africa with interests in over 500 companies in 44 countries. It became a professional distributor, marketer, and seller of products and technologies of its 'principals' (the owners of the branded products and services it traded) and as a provider of specialist services. As a 'trader' it successfully expanded its options into new markets along the horizontal dimension in Figure 28.4. But as the principals for whom Inchcape acted as agent became more familiar with the behaviour of local markets, wanted more control over their market positioning, and built up the scale necessary to cover the fixed costs of their own local operations, they began to integrate forwards into Inchcape's business. As a traditional 'trader', it had few places to turn. With finely honed trading skills, but lacking the breadth of capabilities to add value in other ways, its strategic options were tightly circumscribed. Some of Inchcape's competitors, like Swire Pacific, for example, had invested more in creating new options by developing new capability sets in areas such as property development and airline management. By the time pure 'trading' as a mechanism for extracting profit from local knowledge came under serious threat, Swire was able to exercise the option to use these expanded capabilities to extract an increasing proportion of total profit from their local knowledge in new ways (INSEAD 1993; Kennedy 1996).

Some companies have the opposite problem of Inchcape: they have created a formidable set of capabilities that are prisoners of their lack of market knowledge. This problem is depicted in Figure 28.5. AT&T during the period immediately after the demerger of the Bell operating companies is a good example. The company had a formidable set of capabilities in technology, communications infrastructure, and experience in sales and customer service. As a result of a long period of domestic regulation and the presence of government monopolies overseas that constrained the markets open to them, however, much of the potential of AT&T's capabilities was imprisoned by a lack of market experience outside the long-distance, voice, and data sector in the United States. These constraints meant that AT&T capabilities had under-utilized capacity. More specifically, given the set of options AT&T had available given the regulatory constraints and its existing

pool of market knowledge, the marginal costs of deploying its capabilities across a broader range of market segments and value-creating services remained below the expected marginal revenues to be obtained.

Gradually, in parallel with deregulation at home and abroad, AT&T has opened up new strategic options by building its knowledge base about the markets for new domestic services and users in national markets overseas. It was thus able to increase the effective capacity utilization of its existing capabilities.

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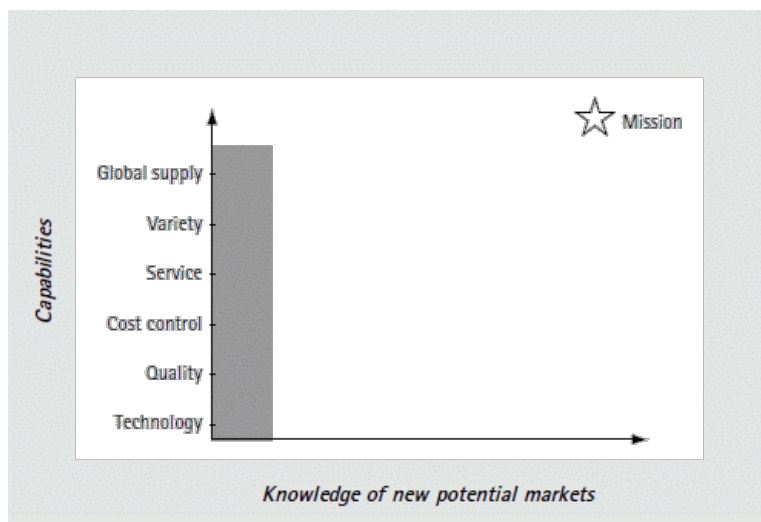


Fig. 28.5 The prisoner—'capable but unaware'

To develop new strategic options, therefore, two sets of processes may be required. First, a set of processes that fundamentally expand a company's capability set. Second, a set of processes that expand a company's knowledge of new markets and market behaviours.

It is important to recognize, however, that opening up new options does not necessarily imply 'unrelated', or even 'related' diversification in the traditional senses (see e.g. Lubatkin and Chatterjee 1994). In the case of Woolworth, the relevant options turned out to be new retailing formats which could be seen as a type of related diversification, likewise, for the comparison between Inchcape and Swire Pacific. But, alternatively, new options can often involve finding new ways to deliver either enhanced value to, or reduce the costs of serving, an existing customer segment such as Monsanto's use of biotechnology to replace traditional chemicals in its weed control business or Schwab's introduction of 'E-Schwab' as an alternative to execution through its telephone call centres. In almost every case, however, the creation of new options involves some combination of fundamentally extending the company's existing capabilities base and, at the same time, its knowledge of customer and market behaviour. In the case of E-Schwab, for example, a series of new capabilities around the design and management of an Internet interface between the customer and Schwab's internal systems was required. Many of the customers for E-Schwab will be users of the existing telephone trading system. But those customers are likely to behave differently in an environment of electronic trading. Schwab needed to understand, for example, what customers will pay a price premium for in a world of electronic commerce

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and how this will change Schwab's ability to build customer loyalty (INSEAD 1998).

Equally, this is not an argument for companies to develop an infinite number of capabilities, or that exploiting them across every market they can learn about is the ideal strategy. Such approaches would eventually drown in diseconomies of complexity as the variety of activities the organization was called upon to handle increased (Schoemaker 1990). As we will see below, there is an optimal portfolio of options that a company needs to create in order to strike the right balance between the cost of creating and maintaining an option and the pay-offs in terms of the ability to reposition itself more rapidly and at lower costs than if it had not invested in those options.

These observations raise two further questions: 'What would these processes actually look like inside a company' and 'how broad a range of options does it make sense to create?' It could be argued in the case of F. W. Woolworth, for example, that the company was continually expanding its capabilities and knowledge of customer behaviour within its existing retailing format and that its error was to limit the range of new options it created to a set that was untenably narrow, given the rate and nature of changes occurring in its industry. We

turn to both of these questions below.

28.3.2 Putting in Place Processes to Build New Strategic Options

As we have seen, the process of creating new strategic options involves some combination of expanding the company's knowledge about new, potential markets or customer behaviours while simultaneously building new capabilities. These processes need to be designed in such a way as to keep the costs of building and maintaining the portfolio of strategic options to a minimum—a particularly important factor given that many of the options are likely to remain unexercised.

Cost-effective methods of expanding knowledge about new potential markets and customer behaviours include mechanisms to leverage the knowledge inside customers and suppliers, learning from 'maverick' competitors and from related industries.

Market research is perhaps the most obvious way to leverage knowledge inside customers. But as a source of raw material from which to fashion new options, traditional market research suffers from the limitation that it is often bounded by the current perception and orthodoxies of the bulk of existing consumers. To create new options it is often better to focus on customer complaints, as a means to understand where customers feel the existing offering is falling short and in what ways—shortfalls that will suggest options for new sources of value-added or

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additional services. Likewise, in creating new options in the spheres of industrial products or business users, it can be valuable to find a customer who has articulated an unserved need and partner with that customer to solve it. The geographic periphery of the company's existing markets or concentrations of highly sophisticated customers, where products and services designed to serve a home market are likely to require most adaptation, can also be fruitful sources of knowledge about potential new customer segments or emerging customer behaviour. To create options from this information requires a company to ensure it has the right environment for the broader potential of these adaptations to be recognized. Finally, options thinking suggests that a company may enter a new market simply to learn knowledge that is potentially relevant for its global operations, rather than earn profits from that market directly. Options thinking would view the costs of being in such a market as an investment the company was making in expanding its portfolio of strategic options.

Partnerships with leading-edge suppliers, exchange of technical information, or purchase of minority equity stakes in suppliers with potentially innovative technologies are processes that can help to provide the raw material to generate new options. Likewise, there is mileage in scanning related industries for potentially applicable technologies, service systems or patterns of changing customer behaviour as a means of providing the raw material to generate new options.

Finally, take particular notice of 'maverick competitors', by continually asking 'who is breaking the rules in the industry?'. Taking the narrow view that your company has a single strategy, from which sales and efficiency must be optimized, means that these competitors are often dismissed as irrelevant 'because they aren't in our market' or they are 'following a different strategy'. As a source of ideas for investment in the creation of a portfolio of strategic options on the future, however, the behaviour of maverick competitors can be a gold mine.

An analogous set of processes need to be put in place to build the new capabilities that will allow a company to expand its strategic options. In her seminal book *Wellsprings of Knowledge*, Leonard-Barton (1995) analysed the processes involved including building a company's capabilities base through problem-solving, experimentation, importing knowledge, and implementing and integrating new capabilities. The combination of capability-building initiatives involved in a Total Quality Management System is a good example. These include physical and technical systems, managerial system, and values and norms, all aligned to the process of building a new capability, in this case 'quality'.

Figure 28.6 illustrates how Acer has used these types of processes to grow from inauspicious beginnings as a small electronics company in Taiwan to become the third largest supplier of personal computers in the world.

Just like their competitors, Acer lacked a reliable crystal ball to forecast the future. But they did have a broad sense of which markets they would have to learn about to expand their strategic options. They knew that they would never have the option to

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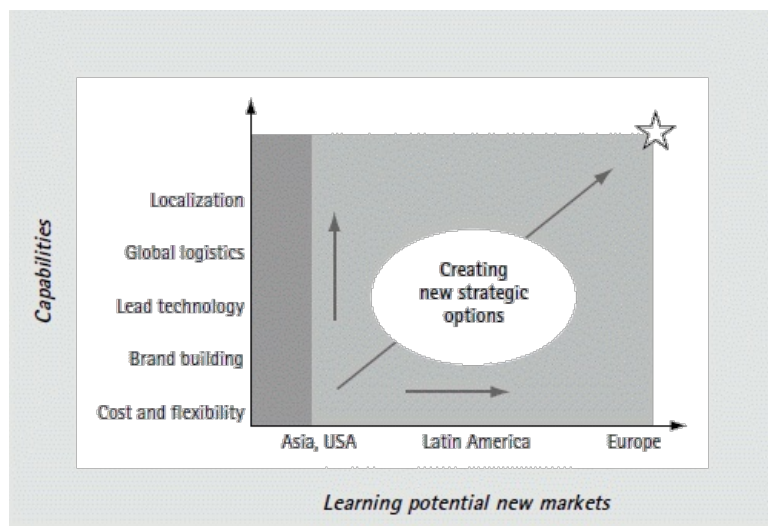


Fig. 28.6 Creating strategic options at Acer

become a global player if they failed to enter the US marketplace. Obviously the United States is a large marketplace in real terms. But more importantly Acer recognized that because the United States was home to the world's most sophisticated buyers of personal computers, understanding these customers would give Acer a head start against competitors in other markets around the world. In other words, understanding the US market would open up many options for Acer both to respond more rapidly and to lead change as other markets followed the American lead. According to Stan Shih, Acer's Chairman, this is an important reason why Acer has maintained its presence in the US market despite sometimes extended periods of local financial losses (INSEAD 1997).

Acer also knew it would be suicidal to attack the established PC giants across a broad front, so they next concentrated on getting an understanding of the Asian consumers in their own back yard. Most of the major suppliers of PCs had traditionally sold only to the 'high-end', high-price segment of Asian markets. Acer set out to develop the capabilities, products, and consumer understanding to allow them to access the much lower price mainstream markets in Asia. After rounds of redesign of their products to cut costs, interspersed with test marketing, Acer learned how to sell computers to the mass market segment in emerging Asian economies ahead of their competitors. This opened up new options to enter other low-price, emerging markets like Mexico, South Africa, and Russia.

Acer did not follow a strategy of straight-line forecasting based on its existing products and procedures. In fact, when it entered a new market it did not always know exactly what product it would sell to whom. Its initial investment in entering

end p.859

a market amounted to buying an option. Rather than simply selling the products it had to the kinds of customers it had served at home, Acer invested in partnerships with local distributors and suppliers designed to maximize its opportunities to learn about the market and further develop its capabilities. In the United States, partnerships with discount retailers taught Acer how to use a previously underserved channel. Its alliance with California-based Frog design helped build its capability to develop non-traditional computer designs and 'ergonomics'. It subsequently exercised this option when it launched the unconventional, sleek, grey 'Aspire': a multi-media home PC which became a best seller.

In Mexico where the conventional wisdom of competitors like IBM and HP was that only large corporates could afford branded personal computers, while private consumers bought low-quality clones, Acer invested with its local partner in working with small- and medium-sized companies to discover, and then to fill, a specific gap in the market among smaller businesses. It then used its capabilities to create a suitable product. Having established a new option, it then moved aggressively to exercise it, building its market share in Mexico to 32 per cent by 1996.

Of course, Acer did not end up exercising all of the options it created. In 1996 Acer effectively acquired an option on the Russian market by building an assembly plant across the border in Lappeenranta, Finland from which it could efficiently supply computers to Russian distributors. In fact developments in Russia during 1996 and 1997, including the rapid emergence of strong, domestic competitors, meant that the Russian market became markedly less attractive than at the time Acer made the investment and much of the Russian aspect of the option remained unexercised. However, given Finland's membership of the European Union, the resulting excess capacity could be easily transferred into other European markets (*Economist* 1997). This example illustrates another important factor to keep in mind: as far as possible the option should be designed to minimize the costs incurred should you decide not to exercise it.

Fundamental to Acer's approach was a view that strategy is about creating options on new markets. Likewise, Acer kept on expanding its capabilities in successive waves. It began by exploiting its basic capabilities in low-cost manufacturing and flexibility to rapidly introduce new technology as a supplier of components and sub-assemblies to other suppliers of personal computers. Recognizing that this positioning constrained its strategic options, the company changed its name to Acer in 1987 and began to invest in its brand. It also realized that to break out of a 'me-too' cycle and compete with the global leaders, it would need access to leading-edge technology. It gained this access through joint ventures in core components with leading companies like Texas Instruments and MBB, a subsidiary of Daimler-Benz.

When Acer began to localize final assembly of its computers, siting assembly lines inside its major markets, it did not precisely forecast how this move would impact its business. It was buying an option that would allow it to rapidly respond to changes in exchange rates and relative labour costs, as well as the opportunity to

end p.860

reduce the stock of finished goods in its pipeline. But local assembly, along with its growing understanding of customers and improved IT capabilities that allowed it to access customer information directly from its retailers, combined to create a new option. It was now possible for Acer to receive the specifications of a customized PC from a retailer and rapidly assemble it to order. It decided to exercise this option when it introduced its 'fast-food' model of computer supply, in which computers were prepared to order by assembling different combinations of standard components in an analogous way to a 'fast-food' restaurant.

Figure 28.6 illustrates this process whereby each wave of Acer's initiatives opened up a new and broader set of options for positioning the company in the future. No amount of planning could enable it to pinpoint exactly which of those options it would exercise in an uncertain future. Unlike Woolworth or Inchcape, however, it had created an expanded strategic space in which it could manoeuvre as future conditions unfolded.

28.3.3 Optimizing the Portfolio of Strategic Options

Clearly it usually costs money to open up new strategic options. A company must therefore choose a bounded portfolio of options to create. So how does a manager know if he or she has created the right portfolio of strategic options for the future?

The good news is that you can answer this question without pretending to be able to forecast the exact volume of sales, prices, or input costs five years hence. But traditional spreadsheets with spurious accuracy to two-decimal places five years into the future have to be set aside. Instead, to begin creating the right set of options we need to take a view on two sets of factors:

1. Broadly what alternative capabilities might we need to profitably meet our probable customers' needs in the future (e.g. digital or analogue technology, localization or individual customization, high levels of variety, reduced lead times, bundled products and services, and so on)?
2. Which potential future markets (geographic, customer, or non-user segments) or new customer behaviours (such as how customer behaviour will change with the growth of e-commerce) will it be important to start learning about so that we have the option to respond to them in the future?

At this 30,000-ft level, far above the detail of unit sales and prices, we can probably forecast with reasonable accuracy. It is interesting to note that in 1984, for example, John Naisbitt analysed 6,000 local newspapers in the United States to isolate ten 'mega-trends'. They were developments like the fact that 'customers would demand a combination of high-tech combined with high-touch', that 'globalisation would mean a combination of more shared production with more cultural assertiveness in individual markets', and that there would be an 'option explosion' in which

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customers across more and more industries would demand not just 'chocolate or vanilla', but a huge variety of alternative product or services specifications (Naisbitt 1984). Most of these broad 'predictions' came to pass, largely because they were not predictions at all, but trends already underway that simply gathered pace with the passage of time. They are exactly the kinds of views on the future that companies would need to know to assess the set of capabilities market knowledge necessary to generate a sound portfolio of strategic options. Asking, for example, what kind of capabilities we need to build to increase our options to provide future customers with massively more variety; what does this mean for our operations, for our inventory systems, for our salesforce training? The answers will obviously differ industry by industry and company by company, but we can make a fair guesstimate of what they are.

Various techniques exist to develop this list of the alternative capabilities that a company might need to develop and the market environments or customer behaviours it might need to understand in order to cope with most of the major directions in which its industry might develop. One popular approach is 'scenario planning', pioneered by the Hudson Institute, in which a series of alternative, internally

consistent scenarios of how the market and industry structure might develop, and what the implications for sources of competitive advantage might be, are built (see e.g. McNulty 1977; de Cues 1988). In their book *Competing for the Future*, Hamel and Prahalad suggest isolating potential 'discontinuities' by looking for the likely collision of different trends that will create a step-change in the environment (Hamel and Prahalad 1994: 145). An example of such a discontinuity is the combination of changing lifestyles creating a demand for news broadcasts at any time 24 hours a day, the emergence of a new cable media distribution channel, and the development of low-cost satellite communications to allow reporters to despatch their stories without the need for a network of large local bureaux, that opened the way for CNN to become a feasible proposition.

Once a list of alternative new capabilities and market environments and behaviours that might figure in the future has been accumulated, a table of the main alternatives a company is likely to face can be created. An example of such a table of contingencies for a competitor in the mobile telephone industry is illustrated in Table 28.1.

Table 28.1 illustrates the fact that not all combinations of future potential discontinuities and possible capabilities required to underpin competitive advantage will be technically feasible (Internet-mobile telephony convergence and analogue technology, for example). Once the feasible options have been identified, planners must then decide whether or not to make the investment necessary to include a particular option in the company's portfolio. Looking at Table 28.1, for example, each competitor will have to decide whether or not to include Option 3 and Option 8 in its portfolio by investing in the continued development of analogue technology. These decisions should be result of three considerations:

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Table 28.1 Designing a portfolio of options for the mobile telephone business

Capability requirement/market discontinuity	Analogue engineering	Digital GSM engineering	Other digital engineering
Mobile telephones competing to replace fixed-line services inside large corporations		Option 1	Option 2
Emergence of lifestyle uses and the mobile telephone as a 'fashion accessory'	Option 3	Option 4	Option 5
Internet, voice, and data applications converge		Option 6	Option 7
Entertainment media/mobile telephony convergence	Options 8		Options 9

(1) the costs of creating and maintaining the option;
 (2) the estimated probability that the options will be exercised;
 (3) the probability that creating the option will itself spawn future options, even if it remains unexercised (e.g. a company may value Option 3 or Option 8 not for its direct profit-making potential, but because of its capacity to open up future options that rely on analogue technology).

When strategy is viewed as the creation of options on the future, minimizing the costs of creating and maintaining options becomes a critical managerial concern. The costs of creating and maintaining options can be reduced by careful design of efficient experiments, test marketing, and prototyping, sharing the costs in partnership with interested customers or suppliers, and by leveraging the new information sources, like maverick competitors or adaptation taking place on the geographic periphery of the organization, that were discussed above.

In attempting to optimize the company's portfolio of options it is also important for management to make a clear distinction between the cost of investing in the option and the cost of exercising that option (the latter being the costs of scaling up the option into a profit-generating business). In the case of Woolworth, for example, the costs of its initial experiment to establish its first 'Foot Locker' store were the costs of creating an option to move into this type of speciality retailing. If this option had been left unexercised, the cost would have amounted to writing off the cost of this experiment. The cost of exercising the option that experiment

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created included all of the investments required to establish and operate a competitive chain of stores that achieved the minimum efficient scale for this business. The cost of Acer's option on the Russian market amounted to the investment in its Finnish plant less the expected present value of cash it could obtain from selling the production elsewhere in Europe if it decided to leave the option to enter Russia unexercised. The costs of exercising its Russian option, meanwhile, would have included the costs of investing in brand building and distribution capacity in Russia, and so on. This distinction is critical because the decision whether or not to include a particular option in the company's portfolio should be made by comparing the estimated value of that option with the *cost of creating the option*, not with the costs of exercising it.³

³ The subject of valuing real options is a large topic in its own right that there is insufficient space to cover here. For relevant techniques and methods, see e.g. Amram and Kulatilaka 1999.

It is also worth noting that, by viewing the first role of good strategy as the creation of a portfolio of options for a company's future, the success of that strategy does not rest on the ability to predict the continuance of any single trend. As we have already noted, depending on the future environment, not all of our options will be exercised. However, those that we discard are not wasted, but will have served the useful purpose of insuring against an uncertain future.

28.3.4 Corporate Renewal and the Strategy Innovation Pipeline

As we noted above, the cost of creating and maintaining an option also depends on the form in which the option is maintained: as an idea, as an experiment, or as a venture. To position itself for continuous renewal in the face of a changing environment, it makes sense for a company to maintain its portfolio of options in different states of development and to manage the flow of investment into each option depending on the way the environment seems to be moving and how fast. As an option looks more likely to be exercised it will pay to invest more in it, thus moving the option from the idea stage, through experimentation towards a stand-alone venture. Managing a portfolio of options, therefore, involves actively creating and managing a 'pipeline' of options as different stages of development. Such a 'pipeline of strategic options' is depicted in Figure 28.7.

Some options will need to be pushed through the pipeline rapidly, if the likelihood of exercising them increases. Others may lie 'dormant' for an extended period, or possibly indefinitely, if the environment never evolves in a way that justifies their exercise. Each individual option will also need to be managed differently, depending on its stage of development: ideas will need to be managed differently from experiments or ventures.

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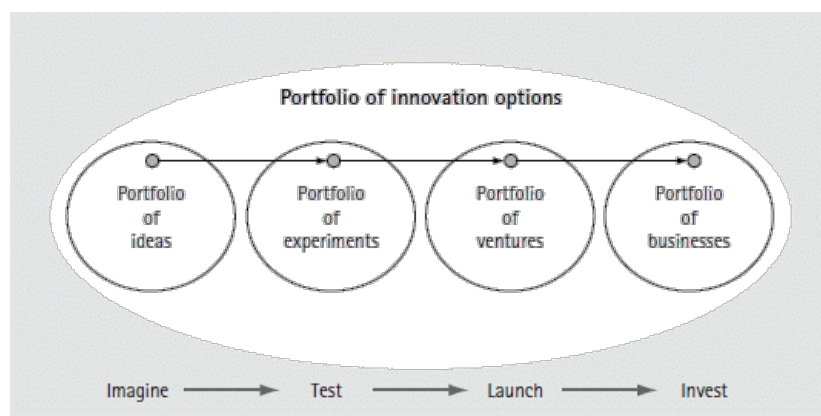


Fig. 28.7 The strategy innovation pipeline

28.4 Managing the Strategy Innovation Pipeline

Managing a pipeline of options for strategic innovation and renewal involves four main activities:

- (1) finding mechanisms to fill the pipeline with different ideas that are possible options on the future;
- (2) managing four sub-portfolios of options at different stages of development: ideas, experiments, ventures, and business;
- (3) managing the toll gates and transitions by which an option receives further investment to move through the pipeline;
- (4) exercising the option by scaling it up into a substantive business within the corporation's portfolio of business activities.

We examine each of these activities below.

28.4.1 Filling the Strategy Innovation Pipeline

A survey of strategy innovation in twenty-five companies undertaken in 1999 by the author found that in most companies there was no lack of ideas that potentially represent innovative options on the future. But most of these ideas were left in 'limbo'; they remained little more than flashes of inspiration in the heads of individuals or small groups because there was no process to develop these ideas. Many companies had 'suggestion schemes'. While these were effective for

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small, incremental ideas they were generally not attuned to handling ideas for options on the future of a company and its business model. With the backing of a strong, entrepreneurial champion, some of these ideas were developed internally. But this was very much a 'hit or miss' process. Others were taken outside the corporation by entrepreneurial former staff and became seedlings for venture capitalists.

A few companies, such as Royal Dutch Shell, have developed a more systemic process to collect ideas for options on the future. In Shell's case this involved inviting individuals to sketch out their idea on a simple one-page form which would be submitted to a 'GameChanger' panel of six peer-group individuals. Members of the GameChanger Panel were tasked with expanding and nurturing the ideas that seemed to have potential, including allocating a small time and cash budget for use by the individual or team to flesh out the idea. Shell also initiated 'just do it' meetings in which individuals or teams with ideas for options as to how to develop Shell's business in a particular area were invited to bring their ideas to a common forum for further development and initial funding.

All ideas submitted were logged by Shell in the portfolio of ideas for options on the future. Some lay dormant. Others were pushed forward. In this way the portfolio was actively managed.

28.4.2 Managing a Portfolio of Ideas

Having amassed a portfolio of ideas and put in place mechanisms to encourage a continuous flow of new options into this portfolio, the ideas must be managed, evaluated, and developed. But when an option is in the form of an idea, it is at an early stage in its gestation. It is therefore inappropriate to apply the same criteria as used to assess an established business. That would be the equivalent of asking a 6-month-old baby to run a marathon. The criteria for assessing the quality of an idea as an option on the future should not be based, for example, on the quality of a proverbial five-year spreadsheet laying out future forecasts of its profitability in existing market conditions. Given the role of an option as a way of dealing with future uncertainty, it will be more important that the idea is capable of acting as a launching pad into a new technology or market segment that might take off, than its prospects of making a return on the assumption that current trends continue.

Viewed as options on the future, ideas will be valuable if they:

- (1) are capable of dealing with possible discontinuities in technology or consumer behaviour;
- (2) provide new types of customer benefits; or
- (3) are scalable should the option be exercised.

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Given the low cost of maintaining an option as an idea, an optimal portfolio of ideas must be judged by the extent to which it allows a company to 'cover the bases' of alternative scenarios or 'states of the world' it may face. This judgement can be based on:

- (1) the number of ideas;
- (2) whether they cover the major discontinuities (technological, consumer, competence); and
- (3) the likely scalability of the ideas in the portfolio relative to the size of the existing business.

Before an option in the idea portfolio can make the transition to the stage of an experiment (justifying the higher investment required) three conditions must be met:

- (1) the ability to articulate a viable business model around the idea (a value proposition, revenue source, and major cost drivers);
- (2) an experiment to begin to identify the major assumptions that would make the option viable and attractive; and
- (3) a team with the right mix of skills to conduct this experiment (either physical or virtual) to test the potential of the idea as an option on the future.

28.4.3 Managing a Portfolio of Experiments

Once it has been decided to develop an option to the stage of experimentation, a new set of criteria become relevant to managing it. These include:

- (1) the ratio of learning over the cost of the experiment;
- (2) how conclusive the results of the experiment are in determining the viability of the option;
- (3) whether the experiment is successful in identifying the critical preconditions under which it would make sense to exercise the option.

Again the quality of the portfolio of options a company has at the experimental stage will be determined by whether the portfolio covers the major technological or market discontinuities the company could face and whether, taken as a total portfolio, the options are of sufficient potential scale to match the need to grow or replace the corporation's existing business models in the face of strategy decay.

The decision to invest further to push a particular option past the experimental stage and to launch it as a venture, meanwhile, depends on:

- (1) how soon demand is likely to emerge (this might be proxied, for example, by whether a lead customer can be identified for the option);

- (2) demonstrated proof of concept, including a potential revenue stream; and
- (3) support of a suitably qualified team.

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28.4.4 Managing a Portfolio of Ventures

Once the decision has been taken to push an option to the stage of becoming a venture, the task is to refine and prove the feasibility of exercising the option by scaling it up into a profitable business and to identify under what conditions exercising the option would make sense.

In many cases these assessments of whether the venture represents a viable option for scaling into a significant business cannot be made on the basis of the existing profitability of the venture. It may be, for example, that the venture will never be able to achieve profitability at small scale. Instead the critical criteria for assessing a venture are:

- (1) its potential to create significant value as a new business if the environment moves in a particular direction;
- (2) its potential to act as a profitable alternative to an existing business model should changing conditions accelerate decay of the current profit stream;
- (3) the risks involved in successfully scaling up the venture even if the right constellation of market conditions were to fall into place.

An optimal portfolio of ventures for a company, meanwhile, will be such as to cover the main technological and market discontinuities it may face (or potentially benefit from in the future). Overall the strategy innovation pipeline should cover these environmental contingencies with a set of options such that the maturity of the options in the overall portfolio would allow the company to be in a position to exercise each option when required. Thus, technological or customer changes that are likely to evolve only in the longer term should be matched with options in the pipeline at the idea stage. Short-term technological or market contingencies meanwhile need to be matched with options at the venture stage of maturity so that they can be exercised at short notice as a solid platform to rapidly build or reposition a significant business.

28.4.5 Exercising an Option by Scaling It Up to Become a Substantive Business

When a previously uncertain change in the market environment actually comes to pass, it will make sense to exercise one or more of the options in the portfolio. This means investing the resources and competencies necessary to scale the option up into a full-fledged business unit. Typically this involves the infusion of:

- cash
- relevant competencies from the existing businesses (brand building capabilities, for example)

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- operational skills required to drive up efficiency and manage a large-scale, possibly complex business
- an 'organizational home' within the corporation and associated reporting structure.

Once scaled up, the criteria for evaluation are no longer those used for an option: the business needs to be judged by more traditional measures of an established, ongoing business such as revenue growth, profitability, return on capital employed, Economic Value Analysis (EVA), and so on. What was an option throughout its life to date has now entered the portfolio of businesses that makes up the corporation revenue and profit-producing engine. It has cleared the various hurdles described above and reached the end of the pipeline shown in Figure 28.8. This completes the strategy innovation cycle.

In a world that often seems to assume that maximum speed is always the right strategy, it is important to recognize that it may be wrong to push an option through to a full-scale business too early, especially if this means closing off other options in the process.

Monsanto, for example, single-mindedly drove through to full-scale launch its strategy for rewriting the role of the herbicide business using genetically modified (GM) seeds. Rather than retaining a portfolio of options distributed between portfolios of ideas, experiments, and ventures, it chose a single strategic innovation and simply 'went for it'. When the environment unexpectedly turned increasingly hostile to GM-based products, starting in Europe and spreading back to the United States, it was left boxed into a corner. Monsanto closed off other options too early and drove its idea of GM seeds linked to its herbicide range rapidly through the strategy innovation pipeline before the market was ready. This left the company seriously damaged and looking for a 'rescue partner' with which to merge.

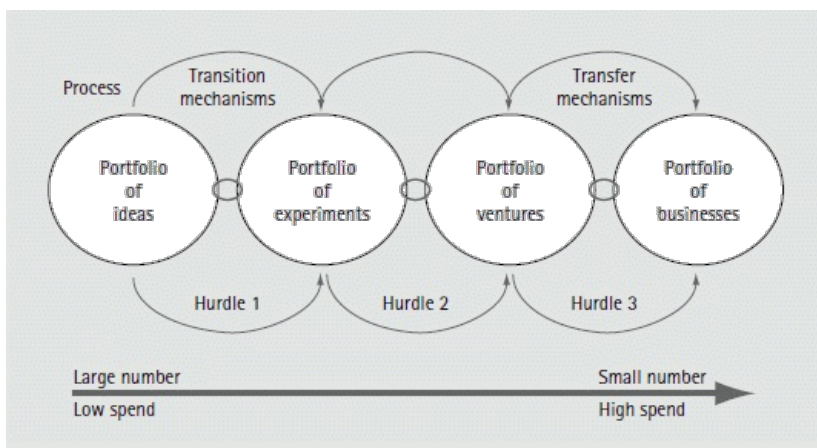


Fig. 28.8 The life cycle of an option on the future

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Its competitor, BASF, by contrast, created a new biotechnology division comprising seed companies, biotechnology expertise, and speciality chemicals capabilities. This new division was charged with coming up with a portfolio of options that BASF might exercise in the future to take advantage of emerging biotechnologies. Rather than choosing a single strategic innovation and rapidly scaling it up, it set about building a pipeline of options at different stages of maturity to maximize readiness to launch successful strategy innovations as the fog of market uncertainty began to clear.

28.5 Summary

In this chapter we began by sketching out what strategy innovation is and why it is a necessary capability for companies to develop in the fight against strategy decay. We developed a set of indicators a company can use to assess the extent and speed of strategy decay in its existing business model. This establishes the size of the 'gap' that strategy innovation must fill and the speed with which the new business model must be scaled up into a fully fledged profit generator.

But faced with uncertainty about the future directions of technology, consumer behaviour, and market evolution, it is extremely dangerous for a company to bank its future on a single strategy innovation. Instead, it needs to develop a portfolio of options on the future made up of a pipeline of alternative strategy innovations at different stages of maturity from ideas, through experiments, to ventures.

We set out a framework for how to build, optimize, and actively manage this portfolio of options on the future. This included processes for sourcing new ideas for strategy innovation, managing portfolios of ideas, experiments, and ventures, and for scaling up a venture into a full-fledged business unit. We saw that optimizing this pipeline of options involves covering the major technological and market discontinuities a company believes it may face. It involves distinguishing the cost of the option from the cost of exercising it (the cost of scaling up to a large business) and managing the cost of each option.

Finally, we noted that managing the option portfolio involves pushing the option through the innovation pipeline at a speed appropriate to the rate at which the environment is evolving and customer acceptance is increasing, the level of uncertainty, the readiness of an option to move to the next stage, and the cost of developing the option to the next stage. Closing off options too quickly or pushing others to become a full-scale business too quickly can have a downside just as large as developing an option for strategy innovation too slowly and exercising it too late.

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References

- Amram, M., and Kulatilaka, N. (1999). *Real Options: Managing Strategic Investment in an Uncertain World*. Boston: Harvard Business School Press.
- de Gues, Arie (1988). 'Planning as Learning'. *Harvard Business Review*, Mar.–Apr.: 70–4.
- Economist, The* (1997). 'Laptops from Lapland'. *The Economist*, 6 Sept.: 89–90.
- Hamel, G., and Prahalad, C. K. (1994). *Competing for the Future*. Boston: Harvard Business School Press.

- INSEAD (1993). 'The Inchcape Group (A): The End of an Era'. Case study No. 04/93–317.
- (1997). 'The Acer Group: Building an Asian Multinational'. Case study No. 01/98–4712.
- (1998). 'E*Trade, Charles Schwab and Yahoo!: The Transformation of On-line Brokerage'. Case study No. 05/98–4757.
- Kennedy, C. (1996). 'Can Two Hongs Get It Right?' *Director*, Feb.: 34–40.
- Leonard-Barton, D. (1995). *Wellsprings of Knowledge*. Cambridge, Mass.: Harvard University Press.
- Lubatkin, M., and Chatterjee, S. (1994). 'Extending Modern Portfolio Theory to the Domain of Corporate Strategy: Does it Apply?' *Academy of Management Journal*, 37: 109–36.
- McNulty, C. A. R. (1977). 'Scenario Development for Corporate Planning'. *Futures*, Apr.: 14–22.
- Markides, Constantinos C. (2000). *All the Right Moves*. Boston: Harvard Business School Press.
- Naisbitt, John (1984). *Megatrends*. New York: Simon & Schuster.
- Schoemaker, P. J. (1990). 'Strategy, Complexity and Economic Rent'. *Management Science*, 36/10 (Oct.): 31–43.
- Williamson, P. J. (1999). 'Strategy as Options on the Future'. *Sloan Management Review*, 40/3 (Spring): 117–26.

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29 Game Theory In Strategy

J. H. Powell

29.1 Introduction

THE contribution of game theory to our understanding of economic and other social processes during the latter half of the twentieth century has been immense and even a superficial survey of the associated literature is a task beyond the limits of this chapter. Instead, we shall concentrate on an understanding of the relevance of certain key types of game to strategy. For example, we will examine the relevance of *iterated games* to the reputation-building process in an industry. Stylized games like *Chicken* and *Rendezvous*, where participants are, respectively, in irremediable opposition and in complete (but defective) cooperation, mirror many strategic processes and inform our thinking about pre-commitment and norms of expectation, respectively. Examination of situations where equilibrium among the participants is achieved by adopting an evolutionary stable strategy (*Hawks and Doves*) shapes our thinking about the level of analysis of our strategic intent. Lastly, the latest methods of representing specific conflict/cooperation relationships between companies are discussed in order to show that game theory is capable of doing more than discussing strategic situations in general, and can, in fact, be used for specific action planning.

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29.2 The Development of Game Theory

29.2.1 The Games We Play

Man has played games for many thousands of years. Bronze Age graves, for example, have been found containing a simple pebble-moving game related to the modern-day African game of *mancala*. Generally speaking, these pastimes involve direct (if stylized) confrontation between the participants: what one player wins the other loses. The games we consider here, however, are neither so trivial in their effect nor so unidimensionally confrontational. Like the relations between companies, where a competitor in one situation can be a partner in another, real-life games are an intimate mixture of cooperation and conflict.

The essential concept of a game in the sense we understand it here is that two or more players are struggling over a limited (but not necessarily fixed) resource. The struggle is to win resources by achieving a cooperative agreement and/or by application of some sort of force. An example might be two companies seeking to agree over the work-share of an important project. Coercion is undoubtedly present, but there is nevertheless a sincerity of intent, since, if they do not agree a work-share, they are unlikely to be able to implement the project. A second example of this hybrid cooperative/competitive behaviour is the struggle for a number of companies to control market share. To the extent that the market is fixed in size, they are undoubtedly in direct opposition one with the other. To the extent, however, that they can cooperate (even tacitly and implicitly) to increase the total size of the market, say by introducing a new technology or de facto standard desired by the customer, they are in cooperation.

The early work on game theory was carried out by von Neumann and Morgenstern (1944). The scope of its attention is interesting. It deals with both parlour games, such as poker, and with more 'businesslike' games such as bargaining and the formation of coalitions in negotiation. Many of the contemporary themes of game theory as a part of economics can be traced back to this important work, but as we look back today on the scope of game theory, it has a breathtaking reach which it would have been difficult to predict at its birth.

Game theory probably reached its apotheosis, at least in public perception, in the 1960s, when, led by the work of Thomas Schelling (1960) and the RAND corporation, it was seen as enormously influential in the formation of the grand nuclear strategy of the Cold War. The essential idea of 'strategic' thinking, in the strict sense of seeking a 'self-consciously interactive' solution (Ghemawat 1997: 8) stems from this era. The concept of zero-sum games, where the resources fought for by the participants are fixed, achieved common usage as a proxy for the mutually assured destructive intent of the nuclear stand-off. Game theory's role as a means of understanding military and global political conflict still

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continues, but we shall concentrate on the more general economic and social applications.

The strongest line of development from von Neumann and Morgenstern's seminal work has been in the application of game theory to strictly economic problems, to the extent that in 1994 the Nobel Prize in Economic Science went to three game theoreticians, Nash, Harsanyi, and Selten. The work of these three, together with that of Shapley reflects the enormous progress made by economics in addressing general technical questions of game theory, but thousands of other papers reflect the search by economists for specificity and

accuracy in their models. The spread of these models is very wide indeed, extensive work being carried out into, for example, negotiation and bargaining, voting power, sequential games (where moves are carried out in turn), infinite games, multi-person duels, the role of information, collective action in bargaining, and many other topics of a similar nature. To most strategic managers, however, these topics are largely inaccessible, since they are voiced in a mathematical language that only specialists can appreciate. Nevertheless, it would be an error to dismiss them as irrelevant to strategy, since the work underpins all of the more directed material accessible to the strategist.

A second line of development has been the application of game theory to more general social studies, exemplified by the work of Brams (1994) and Binmore (1994). Here we see a treatment less mathematical and dealing with such diverse topics as reputation, threat, deterrence, and altruism. Axelrod's (1984) study of cooperation among trading entities in a computer environment also falls within this category. An associated area of study is the application of game theory to biological evolutionary studies, one aspect of which is discussed below (in the game *Hawks and Doves*) when we examine the tactics and behaviour of birds in winning food in order to throw light on the extent to which we should see strategy as a reactive response to a series of specific situations or as a structure for the adaptation of policy. To use more familiar terminology, should we see our core competences as a bundle of skills allowing us to react successfully to a series of market situations or as a capacity at a higher level of analysis allowing us to adapt our strategies, or, indeed, our concept of what constitutes a strategy in response to the policy environment in the industry?

A third line of development has been in the generation of situation-specific models. Most of the economic and social models are, because of their purpose, archetypal in nature—they provide stereotypes of behaviour, which allows us to understand the essential structure of negotiations, for example—but, because of their need for generality, they do not often possess the specific detail needed for a particular management problem. This does not, of course, render them impotent. It is merely that their intent is descriptive rather than normative. Into this former category of specific models falls the work of Fraser and Hipel (1984), Howard (1971, 1998), and others (Bennett 1980, 1986; Powell 1999).

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29.2.2 Classification of Games

It is useful to have some sort of method for classifying strategic games. One instinctively feels that there are inherent structural differences between:

- (1) a number of competitors each simultaneously trying to decide on their investment strategies for product/market development; and
- (2) two companies seeking to agree over work-share for one of a series of large projects.

In the first case information is very definitely not shared among the participants. Play is simultaneous, in that there is no natural ordering sequence of investment decisions for the group of competitors and the participants cannot (either by legislation or self-interest) have mutually binding agreements.

In the second case the players are part of a sequence of binding agreements, since they hope to cooperate in the future as well as on this particular project. They also have a much greater degree of sincere communication between them than in the first case. These considerations and others below form a sound basis for classifying games.

- **Are moves in the game sequential or simultaneous?** There is a distinct difference in thinking style between that required when you move and then the opponent moves, knowing what you have done, and when both players make their tactical choices simultaneously (or, more precisely, without prior knowledge of the other's choice). In the first case, the situation requires you to think '*What will my opponent do in reaction to my move?*' In the second, simultaneous, case you each have to decide what the opponent is going to do right now, but recognizing that each of you, in calculating your current move, will be taking into account that the other is predicting his opponent's (i.e. your) move.

An example of the importance of sequential games is that of deciding whether first mover advantage can be realized when a number of firms attempt to enter a new market. On one argument, if a firm can defend aggressively the initial position (or indeed has a reputation for having defended a position aggressively in the past), there will be first mover advantage. Scale economies grow as initial market share is lifted by the initial rapid growth of an immature market and the first mover takes the rent on his or her entrepreneurial foresight. On other occasions, where the technical basis for the initial entry cannot be defended, the second mover has the advantage, since it may well be less costly to retro-engineer a product than to have invented and innovated it.

A particularly rich case study of a sequential game covering the battle between BSB and Sky Television over the UK satellite TV market in the early 1990s can be found in Ghemawat (1997).

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- **To what extent are the players competing or cooperating?** In some games the participants are struggling over a fixed asset and one player's gain is the other's loss. Such a situation (known as zero-sum) necessarily leads to a degree of aggression not present

where the contested resource is expandable through co-operation. This cooperation is not necessarily overt or even, on occasions, obvious to the participants. Take the case of companies selling competing project support software, say, a risk management tool. The market for these expensive software packages is limited by the major projects which are available for bidding, and so in some respects these companies compete in a zero-sum fashion and will be optimizing their moves so as to bring down the other as much as to enhance their own position, since these objectives amount to the same thing.

On further examination, however, the single project confrontation is seen to be part of a larger more cooperative game, since there is a component of one company's action which helps the other, since any market development activity helps all software manufacturers by raising the generalized perceived need among clients.

To see that such behaviour is truly strategic in nature, one should observe the advantage gained by large telecommunications companies such as BT who embraced enthusiastically the European PTT standard setting of the late 1980s, thereby gaining a considerable entry barrier in the subsequent battle for European telecommunications business. If you set the standard, you may well 'leak' some technical information to competitors, but collectively the early standard setters are better fitted to defend the technical position that they have collectively created. The latecomer has to invest to compensate.

- **Is the game a one-off or will the players meet again?** Whether or not the game is repeated bears enormously on the strategy for its solution. In situations where a one-off agreement has to be made, the temperature can become very high indeed. Any takeover, for example, where the negotiators do not expect to gain any position in the new company, say because they will be retiring on their share options, is likely to be more aggressive than one where the direct initial confrontation is attenuated by knowledge that 'we all have to build along' in the new company. Behaviour of participants is, therefore, altered if they expect to have to use concepts like trust or reputation in their future business dealings. On the other hand, if, as in the stock markets of the 1980s, the concept of dog eat dog applies, there is no future value in dealing other than aggressively with another participant.

There is another reason why repeated trading with the same participants alters behaviour, and it bears strongly on our strategic behaviour. If we have traded with a company before, we have a better chance not only of predicting their behaviour but of gaining insight into their competences. It could be argued that avoiding trading with the same companies is a way of protecting

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the tacit skills of the firm. Certainly the reverse is true. It is a well-known tactic on the part of certain very large companies to carry out due diligence¹

¹ The process of determining the value of a target company to protect shareholders' interests before a deal is struck.

on a target company a number of times. In a sense they are in bad faith on the first occasions. Even though they intend to make an offer eventually, they are using two separate mechanisms of influence—first, they are gaining a better view of the target's competences and hence a more accurate valuation. Secondly, they know that the behaviour of the target is altered because they, too, dare not assume that this is a single, one-off engagement between the management teams.

- **Do the players have the same information?** There are some parlour games, such as chess, where players possess the same information, but in business this is a rare situation indeed. Generally speaking, business people see information as one of the assets with which they manipulate situations towards their advantage. Hirschleifer and Riley's (1992) comprehensive book on the subject deals with many aspects of asymmetry of information in economic and business situations, mostly from a game theoretic viewpoint. We might, for example, seek to withhold from a potential strategic partner the true value which we place on the relationship in order to obtain favourable terms for alliance. We wish to release information to our advantage but to withhold information which acts against our interest, and so do others with whom we deal.

Our deceit, however, is so natural and understandable that partners will be very sceptical of our utterances and will tend to rely only on those actions or commitments that are real. In particular, two phenomena known as *screening* and *signalling* model this need for us to judge others on deeds rather than words.

Signalling is the act of a player who has more information than another and who wishes to convince the other players that he is not bluffing in claiming this valuable knowledge. In order to be convincing, the first player must carry out an act which can only be interpreted as being in his interest if the claim to knowledge is, in fact, correct. Let us imagine that we are trying to convince predators that we are determined to protect our position. One component of an entry barrier is well understood to be the willingness of an incumbent to react aggressively to intrusion, say by prompt and aggressive court action to protect a patent. We could make loud noises in the press, but this could be interpretable as bluff. Instead, we recruit expensive patent lawyers, saying in effect, 'Look, we are going to react aggressively to any attack on our patent. If we were bluffing, it would not be worth our while having this high paid help, but because we are going to defend our position it makes sense for us to make the commitment.' *Screening*, used in the sense of testing or filtering, is the demand by a less-informed

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participant that the other make an objective commitment that cannot be interpreted as bluff.

- **Can the rules of the game be changed?** Most business games involve an establishment of the rules prior to some actual play, and if those rules are not in our favour, self-evidently we will be put at a disadvantage. Strategically, therefore, it is important to take part in the pre-game that sets those rules. Many takeover battles in restricted markets have a pre-game component where the Mergers and Monopolies Commission is asked by one contender or another to rule on whether a bid would be allowed. Usually the issue is whether an acquisition by the potential buyer would create an inappropriate domination of the market. There are many examples of this, including the break-up of the Ferranti companies in the mid-1990s and the hostile bid by Royal Bank of Scotland for NatWest bank in December 1999. In some cases (and Ferranti is a good example), winning or losing the pre-game is tantamount to winning or losing the game itself because if a takeover were allowed in principle, the subsequent bidding war would be a foregone conclusion because of the superior financial strength and commitment of one of the parties.

The European PTT standard setting discussed briefly above can also be seen as a pre-game.

- **Are cooperative agreements binding?** There is a convention in game theory that situations where the parties are able to enter into enforceable agreements to take joint action are called *cooperative* games whereas those where the parties cannot enter into an enforceable agreement are called *non-cooperative* games. This is rather misleading, since it seems to imply that no cooperation can result without binding agreements. This is not the case. It is perfectly possible for parties to agree on joint action in the non-cooperative case, so long as it remains in their individual and separate interests to act in the agreed (but non-enforceable) fashion. One might think that the majority of business situations are, in this sense, cooperative ones, but very often agreements with very powerful bodies such as governments are so unbalanced that they become in effect non-cooperative games. A small company carrying out consultancy work for a foreign government might think that the government will be bound by normal rules of commercial contracting. This is not the case necessarily, and the government may be forced by the actions of its own legislature to renege on a contract signed. Any assumption that a game is cooperative should be carefully audited; we are far better seeking stable solutions which maintain agreements through beneficial self-interest rather than relying on externally stabilizing influences. An example of this is two firms setting out on a strategic relationship, say to share markets or bundle deliverables. Of course, they will establish a legal agreement between them, but the real stability in the relationship is produced by early establishment of jointly beneficial business, so that they each see a benefit in making the relationship work.

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29.3 Strategic Action: Cooperation and Conflict

29.3.1 General versus Specific

Game theory's relevance to strategy does, of course, depend on what one means by strategy. The approach taken here is that the remit of strategy is not merely the long-term, wide span of control of the affairs of companies, but also includes the management of short-term events, often involving relatively limited resources, on which the future of the firm can, nevertheless, turn. Certainly game theory has a role to play at this level of analysis, providing generalized descriptive advice which allows us to make sense of the actions of others in an aggregated sense. Rather than model the behaviour or hypothesize about the motivations of specific competitors, we discuss them as archetypes. Thus, in the examples already given, the concept of pre-games can inform our general thinking about how we approach any attempted takeover, namely as a multi-stage engagement.

Not all strategy is of that aggregated type, however. Just as in warfare, where strategy is generally seen to involve the wide sweep of whole armies over continents, there are occasions when a small band of determined men²

²... or indeed, a band of small determined men.

can turn a war. Similarly, in business strategy there will be occasions where an isolated relatively small-scale event (the failure to take over a company, the establishment of a PTT standard) can turn the future for a company. It is unwise to concentrate exclusively upon the generally applicable strategic theory at the expense of the specific interaction which may prove to be of critical importance. It is wise to distinguish between the small and the unimportant.

The difficult thing, naturally, is to determine which specific events are the most important. In the main part, such insight marks out the strategic mind from the more mundane and is a matter of subjective capacity, but the interaction between scenario planning, a ubiquitous approach to future sensemaking, and discrete space games, discussed below, presents some prospect of assisting us in this task. Here we see a game theoretical modelling approach to specifics being placed within a more subjective, global view of the future, so that the former provides the necessary detail to produce management action plans while the latter forms the context for that specific modelling.

29.3.2 Nature of Strategic Cooperation/Conflict

The relations between companies at the strategic level are not to be understood as either wholly conflictual or wholly cooperative. If we consider the nature of the

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relationship between an important buyer and a critical supplier, we see that it is an intricate dance, where both are bound into cooperation because of the costs of disengaging. The buyer would bear the extra costs of setting up anew the quality standards already in place with the incumbent supplier and that supplier would bear the costs of having to change to meet the demands of a new buyer, to say nothing of the costs of finding that new buyer in the first place. They are, however, to some extent also in conflict since, simplistically, the one wants to supply at a high price and the other to buy at a low price.

Where there is a degree of mutuality, communication between the participants will be freer than where conflict is present, and this freedom and sincerity of communicative regard lead to accessibility of one party's rationality by the other.³

³ The reverse is easy to see. If we are not in sincere communicative regard with another, there is a real possibility that, since we will have defective information on the value system of the other, we will judge actions which are, in fact, consistent with the other's value system, as irrational because they do not comply with our erroneous assumption of the other's value system.

Since game theory generally relies on an assumption of economic rationality on the part of the participants, this is an important issue. The structuring capacity of game theory provides us with a means of judging the validity of our assumptions about the other's rationality. Signalling and screening are examples of this process. Where communication is defective, game theoretic models provide us with the basis for predicting another's behaviour and consequently of hypothesizing about their otherwise inaccessible value system.

29.4 Key Concepts of Game Theory

29.4.1 Normal and Extensive Form

Table 29.1 shows a duopoly game in what is known as normal or matrix form. It represents the investment choices for two companies in an existing market, namely *invest in process* to reduce price, *invest in quality* to improve differentiation, or make *no investment*. Along the left-hand side are the tactical choices for Row Inc. (who chooses which row of the matrix is played) and along the top are the choices for Column PLC (who chooses which column is played). Each cell of the matrix contains the return to Row and Column, respectively, as a percentage of the existing market. Because of the different inherent capabilities of the firm the pay-offs are not symmetrical. If both choose *no investment*, the entry barriers to a new entrant will fall and so the bottom right-hand cell shows a reduced total return to the existing sellers of $30 + 30 = 60\%$. The game is thus not zero-sum.

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Table 29.1 Normal form game of product/market investment, pay-offs to (Row, Column), respectively

Invest in process Row Inc	Invest in quality	Column PLC	
		Invest in process	No investment
Invest in process	Invest in quality	(50, 50)	(30, 70)
Invest in process	Invest in quality	(60, 40)	(45, 55)
Invest in process	No investment	(25, 75)	(20, 80)
Invest in process	Invest in quality	(85, 15)	(80, 20)
Invest in process	No investment	(30, 30)	(30, 30)

What should they do? Column figures this way. 'If I look at each column in turn I can determine the worst thing that could happen if I make each choice. If I pick *invest in process*, my worst case is if Row chooses *invest in quality*, which gives me a return of 40%. If I choose *invest in quality* Row could choose *invest in quality*, too, in which case I would get a market share of 55%. If, finally, I choose *no investment*, Row might choose *invest in process*, when I would get only 15%. My safest choice, then, is to choose *invest in quality*, so that I will get at least 55%.'

Row, by similar reasoning, also reaches the conclusion that the safest bet is to *invest in quality*. This type of interactive arguing is characteristic of simultaneous games and is often called mini-max reasoning, since it seeks the least worst solution under uncertainty about the competitor's tactics. Note that the reasoning does not depend on Column assuming that Row moves later or earlier. It is as if the moves are made simultaneously, although in practice it may be that they are sequential, but no one notices the effect in the market until after the investment is made.

If the investment decisions were made sequentially, one could draw the matrix out in what is called an extensive form. Figure 29.1 shows the same game, but this time assuming that Row moves first and Column has the advantage of responding when Row's move is known.

Row now thinks in this fashion. 'If I choose *invest in process* Column would be stupid not to choose *invest in quality* for a return of 70%. If I choose *invest in quality* Column will have to choose *invest in quality* too, since this gives them the greatest return of 55%. If I choose

no investment, Column will gain a 80% market share by choosing to invest in quality. The best of these for me is if I invest in quality, and Column does the same, giving me a return of 45% and Column 55%.' Note that the style of thinking here is subtly different, since in each conditional case, Row can know what Column would have done in response to Row's initial move. In a sense Row is 'rolling back' from the twigs of the tree to determine the best first move, and this process can be done whatever size of tree is being considered.

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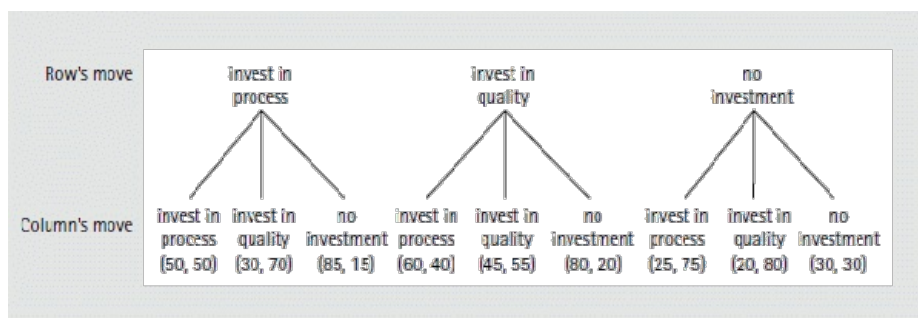


Fig. 29.1 Extended game tree for product/market investment game, payoffs to (Row, Column) respectively

29.4.2 Equilibrium

The concept of equilibrium in game theory is a central one, and presents very knotty problems mathematically. We can see its essence, however, in the simple, stylized game of Table 29.1. An equilibrium solution is a set of tactical choices by the participants such that no party is motivated to move away through their own action alone. Consider the game of Table 29.1, and look at the options for each player with respect to the central cell (*invest in quality, invest in quality*). Column has the option of moving left or right, but in each case the market share is reduced from 55%. Similarly, Row could move up or down, but in each case the return will be either 30% or 20%, both of which are less than the return to Row Inc. of 45% in the central cell.

In many cases an equilibrium solution is not found in this simple form and what is called a mixed strategy has to be adopted. This occurs when making any single choice makes one predictable, and the best tactic is to choose a judicious random mixture of tactical choices in order to mislead the competition.⁴

⁴ Penalty takers in soccer do not always choose the same side, and neither do the goalkeepers in response. They are both adopting mixed strategies.

29.4.3 Iterated games

Some games only exhibit stability when played over and over again. Consider Table 29.2, an example of the ubiquitous *Prisoners Dilemma*, originally described in terms of two criminals in separate cells deciding whether to betray one another and turn Queen's evidence. It portrays the choices to CheatCo Ltd and TrustCo Inc. with respect to their adherence to an agreement prior to its being formalized. The situation is this:

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CheatCo and TrustCo have negotiated an agreement jointly to exploit their technologies, which are complementary. Naturally, in the process of reaching that agreement they have, in good faith, exposed certain of their capabilities to the other. One of them, say CheatCo, is then approached by a third party who alleges that TrustCo is in conversation with another company with a view to renegeing on CheatCo. If TrustCo were to sign an agreement with a third party, they would already have the advantage of the information released in good faith during the negotiation. The third party offers a similar arrangement to CheatCo, saying that it may not be quite as advantageous to CheatCo to renege than to stay with TrustCo, but how can CheatCo be sure TrustCo will remain loyal? Asking TrustCo, of course, will be pointless, because if they were untrustworthy enough to renege, lying would be of little additional consequence.

Should CheatCo themselves renege on the agreement with TrustCo, and betray TrustCo's good faith for the greater gain of the new agreement?

Table 29.2 shows the dilemma. The cells contain the pay-offs to TrustCo and CheatCo, respectively. If they both remain in cooperation

(call this C,C) they will gain \$100 m each, whereas if either defects (C,D or D,C), the defector will gain more (\$130 m), while the betrayed partner will get only \$50 m. CheatCo therefore thinks, 'If I remain in good faith and TrustCo betrays us, we will lose heavily. I have no choice therefore but to cheat.' TrustCo, in the meantime, is going through the same thought process. They do not know whether CheatCo are really in good faith, and so have little choice but to renege as well. As a result, neither party sticks with the agreement (D,D), even though the total profit would have been greatest and each now does worse than if the interim agreement had stuck.

Why then do we not behave in this fashion? There are a number of reasons. First, the game structure is somewhat artificial, in that we have the cover of non-disclosure agreements precisely to prevent this situation. Secondly, rightly or wrongly, companies do build up personal trust between negotiators, so that they feel that they have insight into the integrity of their opposite numbers. Most significantly, however, is the effect of iteration. Imagine what would happen if TrustCo and CheatCo were to look ahead and realize that they were inevitably going to be put into such situations of mutual exposure to betrayal over and over

Table 29.2 Prisoner's dilemma game, pay-offs to (TrustCo, CheatCo), respectively

		CheatCo	
		Cooperate	Defect
TrustCo	Cooperate	(100, 100)	(50, 150)
	Defect	(150, 50)	(80, 80)

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again, perhaps because the industry contained only a few mutually dependent firms. They would then come to the conclusion that, because in the long run it is better to take the return of \$100 m each from cooperating rather than the \$80 m from defecting, it is better to stick with the agreement rather than take the short-term advantage of cutting and running.

It is worth noting, however, that if a participant believes that this is the last time the agreement will be offered, it is advantageous at that point to renege. It is only if they expect to trade repetitively for the indefinite future that the iterated Prisoners' Dilemma (or IPD, as it is called) has a solution stable in (C,C), where both parties keep their words.

29.4.4 Information and Common Knowledge

Information can be argued to be at the very heart of game theory and of strategy itself. Whole topics in strategy concern themselves with the approaches needed to gain long-term advantage through technology strategy and core competence approaches in general. These are deliberate attempts to gain an asymmetry in information in the strategic game which can then be turned into competitive advantage. Many excellent texts deal with the game theoretic aspects of this endeavour, including those of Hirschleifer and Riley (1992) and of Rasmusen (1989).

An important issue in strategy is the extent to which the players see the rules of the game as well defined, or whether they are able to invent a new set of options which the other players do not see. The important work of Bennett (1980) and others (Rosenhead 1989) in hypergames, in which different players may see and use different tactical options, provide an important link between the generalizable archetypal games of economics and the strategists' need for specific answers to specific problems. Even hypergame structures, however, cannot insulate us against the consequences of failing to see tactical options on the part of an opponent which redefine the very structure of the game.

29.4.5 Rationality

Game theory generally makes fairly sweeping assumptions about the rationality of participants. It is almost always assumed that players have common knowledge of the rules, and that each is attempting to maximize a return, usually expressed financially, by the end of the game. Players are assumed to be faultless calculators of what is best for them, too. While this may appear somewhat optimistic, it does at least produce an analysis where the opponent is using the best armoury at his disposal. There are other assumptions about players' abilities to see a number of

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moves ahead and it is not necessary to assume that this decision horizon is limitless. In practice the problem is to know on what basis a limited decision horizon may be assumed.

It is important, also, to understand what this rationality concept does not assume. It is not necessary, for example, to exclude acting in someone else's interest, or to assume that they have to act solely on a financial basis. The weighting of options for OXFAM, for example, would have to include some measure of the emancipatory benefit to be gained by others through a particular business posture, but in all

other respects game theoretic concepts just as easily apply to the cooperation between charities and to their battles for the compassionate pound in our pockets as between more conventional profit-making organizations.

29.5 Some Important Types and Examples of Games

29.5.1 Chicken—Pre-Commitment

Two companies, AspirantCo and ImproverCo are addressing a new foreign market where there is no opportunity for collaboration. Entering the new market will require investment, but if they have a free run at the market the investment will be less than if they both attempt to enter. We can model this situation by a simultaneous move, normal form game like Table 29.3.

The pay-offs reflect the fact that if the market entry is unopposed, the entrant will make a profit of \$1 m and the declining company will lose credibility if it is seen not to have taken advantage of what in retrospect will be seen by shareholders to have been a

Table 29.3 Market entry *Chicken* game, pay-offs to (ImproverCo, AspirantCo), respectively

		AspirantCo	
		Decline	Fight
ImproverCo	Fight	(-2, -2)	(1, -1)
	Decline	(-1, 1)	(0, 0)

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perfectly viable opportunity. If, on the other hand, both companies decline, the shareholders will be more likely to take the view that the opportunity was never a viable one and the damage will be less. We also assume that it is worse for the two companies to compete in the market because the cost of fighting is less than the likely return.

A game of this structure has no equilibrium, since it is in each party's interest to move away from any emergent agreement. For example, if we start with a position (*Decline, Decline*) where neither exploits the market, each party, separately, has a motivation to move either to *Fight, Decline* or to *Decline, Fight*. AspirantCo has the power to move to *Decline, Fight* for a gain of \$1 m (remember that neither will care about the other's gain or loss). Similarly, ImproverCo could move unilaterally to *Fight, Decline* at a gain of \$1 m. *Decline, Decline* is therefore not a stable position in that at least one of the parties will have both the motivation and the unilateral power to move away from it. Similar arguments show that none of the other states is stable.

This game is well known in the game theory literature. It is called *Chicken* and derives from a potentially fatal teenage pastime of driving cars down a narrow road towards one another. A player wins if he does not swerve. Swerving is seen as a loss of face. Similarly in our market entry game of *Chicken*, declining to enter when the other company makes a success of the prospect is bad for our shares. We swerved and lost face.

It would be a mistake to think that there is no solution to the game, however. There is a kind of solution, and it informs our strategic thinking about pre-commitment to action. Morris (1992) discusses the 'super-tactic' of pre-commitment, which, in the context of the teenage tearaways, involves being seen to be totally committed to not swerving. The player chains the wheel in the forward position and arranges to be seen to be drinking heavily from a bottle of spirits, in order to give the strong impression that no rationality will be brought to bear. Hence, the other player must assume that he will employ *Fight* and that as a result the only rational response will be to *Decline*. While amusing in a macabre sort of way, Morris's super-tactic does work. In market terms, we would replace the fixing of the steering wheel by a set of prior commitments to exploit the market, say by being seen shaking hands with the President of the country and signing a committing technology transfer deal to which we are committed *even if we choose not to enter the market*. Thus, we are committed to fighting and our competitor will see that he has no option rationally but to accept our commitment and decline to fight.

In strategic terms, showing prior commitment in situations where our actions could be disarmed through the fear of consequences can be seen as raising entry barriers, showing determination in the face of any subsequent action by the competitor. It also has an effect on companies' choice of differentiation basis when high profile research and development programmes signal commitment to a particular line of differentiation, sending signals to warn off others who might

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otherwise seek to share an undifferentiated market. An example of this is the distinct separation between US military aircraft programmes (concentrating on conventional high agility fighters) and UK military aircraft R&D (specializing in VTOL⁵

⁵ Vertical take-off and landing.

aircraft such as the Harrier). The United States could have chosen to fight, and develop VTOL technology, but in the face of a determined

and very public espousal of VTOL development by both the UK industry and government, it decided instead to take a licence (in effect) to build the McDonnell Douglas AV8B.

29.5.2 Evolutionary Games

So far we have considered only those situations where individual players make rational decisions on the basis of their economic self-interest. We have noted that the assumption is always that the players will behave as if they had perfect calculating ability; that they both see and act upon whatsoever tactical choices are best for them. To reflect our imperfections in the real world, however, we need a model which reflects what happens when a population displays different game-theoretic behaviours, some successful, some less so and then have the opportunity to learn from their experiences.

The approach developed for this purpose is known as evolutionary game theory, and it represents an important means by which strategists can understand the growth of strategic concepts in industries.

General evolutionary theory relies on three elements:

- variation of behaviour or response to the environment (mutation)
- testing for success (fitness)
- retention of the effect of success and failure (heredity).

In our vocabulary, members of an industry will try out variations of strategic approaches, will succeed or fail thereby, and on that basis of perceived fitness others in the industry will adopt the successful approaches and the successful approaches will propagate.

The essential difference between this approach and that of conventional game theory is that in evolutionary game theory the behaviour (known as the phenotype) is a result of something inherent in the member of the population whereas in the latter, the behaviour is the result of calculation. The focus of evolutionary game theory is how populations behave rather than tracking the rational decision-making of an individual. One starts with a population containing certain proportions of members following one behaviour or another and observes how those proportions alter as the effects of the success of the various behaviour come to bear. A behaviour is referred to as being an *evolutionary stable strategy* if a population

end p.890

adopting that behaviour cannot be invaded by a mutant behaviour. It should be noted that the mechanism by which successful strategies come to represent relatively greater fractions of the whole is fundamentally different from the mechanism in biology. In the latter the mechanism is breeding success; here it is the observation and adoption of successful behaviours by participants. In a sense this book is part of that process. To the extent that you, as a business person, are convinced by the case studies and theories presented here, you will adopt them and they will form thereby a slightly increased fraction of the whole body of accepted knowledge about business strategy. The emergent topic of memetics (Blackmore 1999) discusses the ways in which identifiable components of our assumptions and knowledge propagate around a population and offers some promise of a coherent theory of knowledge propagation around a knowledge community.

29.5.2.1 Prisoners'Dilemma—Cooperation and Reputation

The Prisoners' Dilemma discussed above had an undesirable, but perfectly rational solution; although the defection of both parties did not lead to an attractive result, the players were forced by their inability to communicate and hence achieve a binding agreement into acting in their local self-interests. In other words, if we are never to meet our prospective business partner again, acting in our narrow and ephemeral self-interest pays more than adhering to any higher and longer term moral imperative. Principles cost money, at least in the short term and without the prospect of retaliation.

An examination into the effect of playing the game over and over again, however, gives a very different result. The work of Robert Axelrod (1984) in studying the performance of computer opponents trading in an evolutionary computer environment is accessible and very relevant to relationship strategies in business. Axelrod set up a population of algorithms trading one with another according to a Prisoners' Dilemma pay-off matrix. Participants remembered the past history of trading, so that if you had previously reneged on me I would be able to recall it. That then leaves open the prospect of expanding the tactical options available to participants beyond the simple decision to cooperate or defect. Now we can adopt policies which react to previous trading experience. For example, one policy might be *Never Forgive*, where once another player defected on you, you would always defect in subsequent trading with that player. Another might be *Tit for Tat*, where whenever a fellow trader defected, you would defect only on the next trading opportunity. Axelrod encouraged the readers of a popular science magazine to offer policies and trialled them over a large number of trading events in his computer environment.

The most successful policy was *Tit for Tat*, in that over many trades a player who followed that policy gained the greatest return over any other policy. Axelrod then set up another computer environment and invited participants to propose policies aimed specifically at beating

Tit for Tat. Again, *Tit for Tat* won, primarily because

end p.891

the programmes that beat it only did so by small amounts, and they did not do at all well against other policies. *Tit for Tat* also did well in an evolutionary computer environment, where populations of policies were played against one another to see which were the most successful. In this environment, too, although *Tit for Tat* did not do well at first, as other 'nastier' policies met up with other vindictive policies, they effectively neutralized one another and *Tit for Tat* came through as the dominant phenotype in the population.

This has something to say about our attitudes to industrial (network) strategy. We rely to a great, often hidden extent on trust and reputation in our strategic intercourse. Clearly, if we are to establish good trading relations with strategic partners we need to have mutual trust, but we are often tempted to renege on agreements for short-term gains. We should not do so if we are likely to be meeting those partners again and again in our industry. Similarly, if we are cheated upon, we should not leave the sin unchallenged as such behaviour will indicate no penalty for subsequent potentially unreliable partners.

29.5.2.2 Hawk–Dove game

The *Hawk–Dove* game is one of the earliest in evolutionary game theory. It deals with a population of birds who inhabit forest clearings where they compete for food. Whenever two birds alight on a piece of food in the clearing, they fight or share the food depending on their type. If a bird predisposed to fighting (a Hawk) meets a non-fighting bird (a Dove), the Hawk wins most of the food. If, however, two Hawks arrive at the food they will use more energy fighting for the food than it contains and they will both lose. Similarly, if two Doves arrive at a piece of food, they will have to share the food, but they will not use any energy fighting. Given that better-fed birds will breed more, how will the populations of Hawks and Doves evolve over time?

The analogy here is with firms who have to decide how to behave when a market opportunity presents itself. To what extent should they fight for the market opportunity and to what extent should they only prosecute opportunities where the opposition is not aggressive? One can see that a single Hawk in a population of

Table 29.4 *Hawk–Dove* game, pay-offs to (A, B), respectively

		B	
		hawk	dove
A	hawk	(-1, -1)	(9, 1)
	dove	(1, 9)	(5, 5)

end p.892

Doves will always win relative to the Doves, because it will always win all the food whereas each Dove–Dove meeting implies a sharing of the food. If, however, a Dove finds itself in a population of Hawks at first glance it will always lose, in that it will be left only with the scraps after each engagement, which the Hawk wins. The issue here, though, is not the absolute increase in energy gained by the Dove, but the amount gained relative to the Hawks, who will be starving because they are using more energy fighting than the food is worth. The Dove is making a small net relative gain and as a result it breeds slightly better than a Hawk, and the population of Doves increases.

The population settles out into a balance between Hawks and Doves. If the population swings towards one type of behaviour, the other phenotype will be slightly advantaged and the fraction of that behaviour will increase to bring the balance back. In corporate terms, if we are in a very aggressive environment where projects appear in a sequence and other firms always fight to the death over work-share, we may well be better off taking a somewhat supine position, accepting a smaller 'piece of the action' but at smaller cost to ourselves. For example, some buyers demand 'fly-offs'⁶

⁶ A contracting scheme where bidders have to make huge risk investments to develop prototypes which are then trialled one against the other, the winner taking full control of the project.

when contracting larger projects. One response is to put investment into this highly uncertain bidding process and take the competitors head-on and the other is to look for small workshares from the resulting winners, taking a smaller return, but using much less resource in the process. Contractors in these environments can be clearly seen to fall into two groups—those who fight aggressively for leadership (i.e. majority work-share) and those who act as substantial subcontractors for, say, production or specialized contributions. Often these 'Doves' are as large and successful as the 'Hawks' but their core competences are very different, the latter having highly developed bidding teams skilled in fighting the 'Hawk–Hawk' game.

29.5.3 Bargaining

Bargaining in game theory means the agreement to share a fixed resource among parties—it is a partitioning exercise rather than necessarily the haggling which is its common language meaning. Western approaches to bargaining between parties assume that each party is out to get the most at the expense of another. Oriental concepts, however, stress that each party should leave the bargaining table happy with the result. Game theory has components of both.

Bargaining is, indeed, a strategic concept. The decision of how long to wait for strategic agreement to bundle technologies in the face of a rising risk that a third company will beat you to the market meets all the recognized criteria for a strategic

end p.893

issue. It is of long-term importance, it involves large resources, it has high uncertainty, etc. Similarly, obtaining a fair division of resources within the divisionalized firm is not just a matter for a synoptic CEO to determine. The CEO may propose, but the divisional MDs dispose. If they are not content with the allocation of resources, they are unlikely to be following a business plan with which they can have confidence. Consequently, the allocation is a negotiation, albeit one which is strongly shaped by the corporate centre.

A key concept is the BATNA (Thompson 1998:24). Standing for *Best Alternative To a Negotiated Agreement*, it is the best you can get if you do not agree. Imagine you are the representative of a firmware company which has developed an operating system for a massively-parallel quantum computer. You are in negotiation with the brand new company formed by the inventors of the quantum computer. Together you can access a \$10 billion market based on public key encryption, secure funds transfer, advanced aerodynamics, and electromagnetic calculations. If you try to sell your OS to another computer manufacturer the platform will be less capable, allowing you a share in a smaller market worth only \$500 k. On the other hand, your potential computer partner cannot exploit his computer at all without an OS but will be able to apply for academic development funds for some \$100 k. Your BATNA is \$500 k and his is \$100 k. Note that this is very different from the investment that each has made to get to the negotiation. You might each have invested equal amounts, say, \$1 m each, but as far as the BATNA is concerned that, so to speak, is history.

Figure 29.2 shows a negotiation between two parties, A and B, who want to share an asset, V (say, the profits from a joint market exploitation). The axes represent the amounts each takes away from the negotiation. Clearly neither can take more than V , and so no agreement is possible above the line W , but within the triangle OW any agreement is feasible. Player A, however, will not agree if the agreement allocates her less than her BATNA, V_A and player B will not agree if she receives less than V_B . We can foresee that if the parties start at the worst situation for both, where they both achieve only their BATNAs, it is in their cooperative interest to move up and to the right towards the line W , upon which all the best joint solutions will lie, since all of the profit V is then allocated. The best negotiated solution, F , will then lie along the intersection of a straight line through the BATNA point with the line W . Note that this does not define the negotiated solution uniquely, since the slope of the line PF is not defined. This slope is set by the relative powers which the parties have over one another. It is easy to assume that in a 'fair' negotiation, this should be equal, so that they each take an equal part of that resource V over and above the BATNAs. Life, however, is not necessarily fair, and the different parties will have powers over one another which cannot be included in such a simple theory. For example, the negotiation may be between two companies who have existing contracts which are asymmetrical—one may be a supplier to a larger company, for example. Nevertheless, this simple negotiating model can tell us a number of relevant things about our strategic approach.

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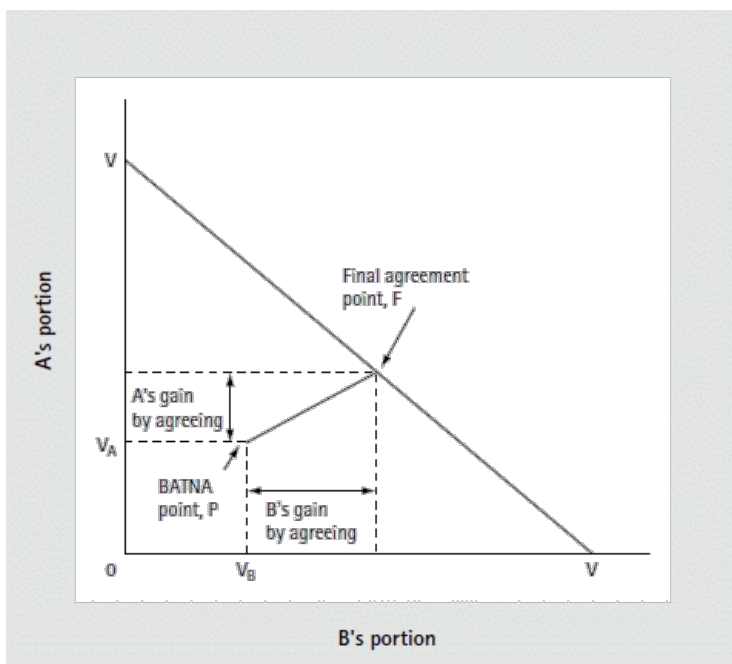


Fig. 29.2 Starting from the BATNA point, P, the parties move up and right towards a final negotiated position which is better for both of them than their BATNAs

First (as player A), we can base our strategy on increasing the slope of the line PR. This represents a straightforward increase in our negotiating power in the discussions. Apart from specific techniques used in the negotiation itself, which do not fall within strategy as generally understood, we can act strategically so as to place ourselves in a more persuasive position. For example, we might have access to competences either through our own organic development or through exterior relationships with partners, to which the other party to the negotiation does not have access. In this respect, then, core competence theory is seen not just as a process of winning and husbanding bundles of skills to improve competitive advantage per se, but also as a power play in obtaining advantageous relationships with partners.

Secondly, we can act strategically so as to increase our BATNA. This will move the BATNA point from P to P* (see Figure 29.3) and the resulting agreement can be seen to be more favourable to us, player A. What, strategically, would constitute a raising of our BATNA? Imagine that we are negotiating a joint entry to a foreign market with a prospective partner, who is bringing channels to market where we bring an existing product or technology. Perhaps we are thinking of jointly offering our product to the Japanese market, where knowledge of local distribution networks

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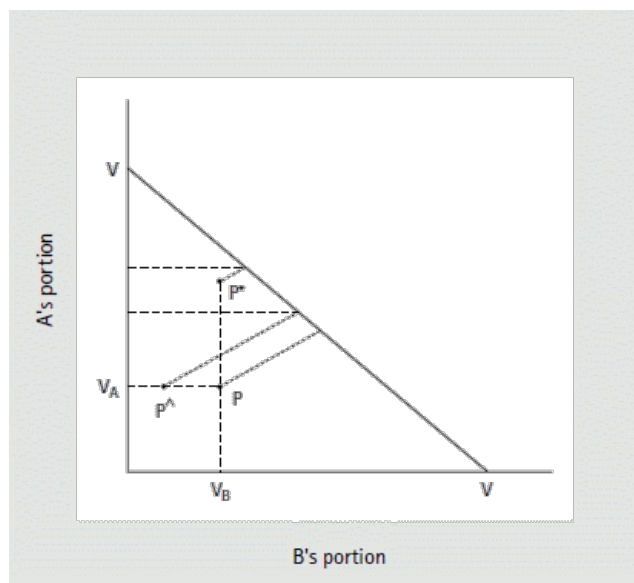


Fig. 29.3 A can increase her portion either by increasing her BATNA or by decreasing B's BATNA

and practices is particularly difficult for a new entrant to access. If we have no other development path for our product, our BATNA is low—we have no alternative but to do a deal with somebody or we will not be able to realize fully the investment we have made in our product. To raise our BATNA we could carry out similar negotiations aimed at another market, say South America. By having a real alternative to doing the deal with our Japanese partner, we raise our BATNA and increase the likely value of the deal to ourselves. Such an argument would lead us, in terms of strategic product/market development, to adopt multiple opportunities and we would have to balance in our development strategy the advantages of being put into a good negotiating position against the inevitable costs of multiple options investigation.

Third, the result is likely to be more in our favour if we can find a way to reduce the other party's BATNA. Figure 29.3 shows that if we can move point P to the position P^A by reducing the value of the other party's fall-back position, we will gain in the final outcome. We might do this in our market exploitation example by tying an existing relationship into this negotiation, say, by pointing out to the other party that failure to agree a joint position here will endanger continuing work for them on existing products.

Negotiation and bargaining, then, can be seen to be of material importance to strategy, particularly in respect of network strategy and the externalities of the firm.

end p.896

We have only been able to touch the surface of this complex topic and the interested reader is recommended to consult Leigh Thompson's comprehensive book on the topic (Thompson 1998), which deals not only with the game theoretic structure of negotiating, but also with the socio-dynamics and practicalities.

29.5.4 Rendezvous Games—Focal Points

A certain class of games, called assurance or rendezvous games, deals with situations where the participants wish to cooperate but are unable to communicate directly. An example often quoted (Jervis 1978) is the strategic relationship between the USSR and the US in the arms races of the last century. Each had the opportunity either to invest in strategic nuclear assets or to invest that fraction of their GDP in social improvement. There are two stable solutions: either both should invest in nuclear assets or both should not. Clearly the latter is the preferred solution, but because of the atmosphere of distrust and ideological conflict between the two super-nations, communication between them was necessarily defective. It could be argued that the ideological basis of their relationship provided a focal point of expectation of conflict, so that each could not believe that the joint social investment solution was a safe one.

A game which examines this focal point issue in more detail is *Rendezvous*. Two parties, Emma and Dai, have arranged to meet in a particular city, say Cardiff, at noon on a specific date. On the way to the meeting each realizes that they have failed to specify where they are to meet. What should each do?

This is clearly a cooperative game where communication is defective. If we imagine that there only two places to meet in Cardiff (the steps of the National Museum and the main railway station, for example) we can see the essential structure of the game. See Table 29.5.

Each party now has a dilemma, since they each want to choose the same rendezvous as the other. The nature of the solution lies in understanding what

Table 29.5 *Rendezvous* game, pay-offs to (Emma, Dai), respectively

		Dai	
		Station	Museum
Emma	Museum	(10, 10)	(0, 0)
	Station	(0, 0)	(10, 10)

end p.897

knowledge or preconceptions the other has. Dai (as one might imagine) knows Cardiff rather well, but Emma does not and Dai knows this. He therefore has to assume that Emma will not know of the National Museum as an obvious rendezvous, and therefore will assume that she will go to the main railway station. Emma has no such choice to make. She does not know the city and therefore will choose some focal point obvious to anyone who does not know Cardiff. In this case, then, the game solves itself because of a peculiarity of the two parties, but in general the solution is more difficult and depends on the extent to which one player's focal points are accessible to the other. One can work to improve this visibility. A farsighted parent may well say to a child in a busy Christmas department store, 'If you get lost, go to the toy department and stay there. I'll find you', thus predetermining a focal point.

A number of strategic situations are structurally similar to the *Rendezvous* game, and the approach of establishing or discovering common focal points amongst groups of participants is helpful. Consider, for example, the behaviour of an industry consisting of prime contractors and subcontractors tendering together to a community of buyers. The civil engineering industry follows this form. In tendering for civil engineering contracts, buyers and contractors are concerned with (among other things) the management of project risk, and there have emerged a small number of risk management packages (ProMap, Risk Man, etc.) to help with this. Investment in each of these packages is demanding both in terms of initial investment in the software and in the extensive training required for engineering and project staff. It is not feasible, even for very large companies, to run more than one package. As a result the contractors can be viewed as being in a rendezvous game. The subcontractors and primes want the same risk management package in order to minimize nugatory investment, but each package has its advocates and each its detractors. In time, of course, de facto standards emerge whereby successful prime contractor/subcontractor teams succeed using particular approaches and propagate them thereby. One can view these dominant frames as the focal points of the *Rendezvous* game of software investment, and the wise subcontractor in such an environment spends time detecting the fashion in these affairs in order to provide a natural solution to a series of *Rendezvous* games with prime contractors.

Achieving agreement between SBUs on technology strategy in a divisionalized company is a further example of focal points. To the extent that the SBUs share natural foci of understanding, either in terms of desirable overall corporate objectives or simply at the level of common technological frames of reference, agreement will be more easily reached between them, and it may well be more efficient for the corporate centre to concentrate upon engendering and uncovering focal points rather than attempting to prescribe the specific nature of the agreement to be reached.

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29.5.5 Discrete Space Games—From the General to the Specific

It will not have escaped attention that, in the main part, the games described so far have presented generalized, almost archetypal, conclusions. They are very good at presenting generalizable results and patterns of thought but are rather less good at offering actions specific to a strategic problem. There is another group of games deriving from the operational research (OR) community (as opposed to economics) which are aimed at modelling specific situations, strategic in nature, but requiring detailed management agenda setting and action planning.

These OR game structures see the world as consisting of a network of states which may or may not be realized according to the various powers and motivations of the participants to bring them about. In many respects they present an extension of the scenario planning view of the world, where planning can be viewed as navigation around a set of futures. Our management agenda then consists of such things as deciding which of the futures we prefer, what we have to do to pursue trajectories which lead to those desired end-points, and what we have to do to unravel the plans of other parties who may wish to divert our progress.

In the games examined so far, the states of play have been defined by the tactical choices made by the players. An alternative view is that the tactics stem from the likely outcomes and our reaction to these likely states of affairs. In drama theory (Howard, Bennett, et al. 1992; Bennett and Howard 1996; Bennett and van Heeswijk 1997; Howard 1998), for example, players adopt positions identifying their initial and subsequent negotiation points, and analysis consists of examining the abilities of players to move between these positions in

order eventually to come to some sort of resolution. A key element of the analysis is the identification and treatment of characteristic dilemmas for players. For example, a player may experience a *cooperation dilemma* when joint action is needed to move together with another player to a mutually advantageous new position. As in the Prisoners' Dilemma, there will be a natural suspicion of the other's intent and ability to renege to his short-term advantage. Drama Theory provides a structuring process by which these dilemmas can be resolved to provide a mutually beneficial (or at least stable) solution. The method has been applied to company situations and to political problems such as the recent Bosnian conflict and is frequently used in the military context. The episodic nature of negotiation, through initial exposure of positions, realization of dilemmas and resolution to outcomes is reflected naturally in the Drama Theory structure and, significantly, the game positions are not defined by the players' tactics, but rather the other way around. What the players have to do to resolve their dilemmas results from consideration of the game structure.

The same generative approach can be seen in Powergraph (Powell 1999) Here, the first step is to establish a set of possible outcomes for the situation which form a network of states. See Figure 29.4 This is done by consideration of the motives and

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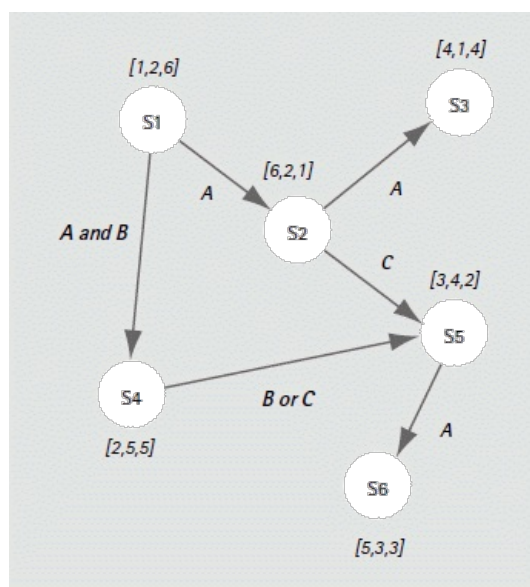


Fig. 29.4 Powergraph network structure. Players' utilities for each state are shown thus: [A, B, C]. Here A will choose to move from S1 to S2. C will choose to move from S2 to S5. A will then choose to move from S5 to S6

interests of the participants. Next we consider the ability of the participants to move the game from one state to another. Sometimes these transitions can be brought about by a player on her own, sometimes only in combination with others. A map of the conflict can then be drawn which shows the possible states of affairs and who has control over the transitions between those states. Consideration is then given to the preferences of the players between the various states. Clearly if a player is to utilize his power to move from one particular state to another, this must be seen by him to be desirable as well as being within his power. Both power and motivation are necessary for a transition to take place.

The result is a kind of map of the game where the likely paths around the map can be examined. Even quite complex conflict/cooperative situations can be easily modelled. Using the map we can ask very directed questions leading to management action plans, such as:

- Bearing in mind the state(s) we prefer, what do we have to do in order to force the transitions we want? Whom (if anyone) do we have to carry with us?
- What can the competition do to prevent these transitions we desire? Whom can we influence to block those moves?

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- What transitions will the competition be trying to engender? Who do they need to carry with them? What can we do to prevent these transitions?
- Can we create new states which resolve conflicts of interest and objective?
- These kinds of questions lead naturally to the very directed kind of action plans needed to manage high energy inter-company conflicts such as hostile takeovers, major project struggles, and the like.

Box 29.1 The Battle for Trafalgar

Situation

In early 1993 BAe Systems and Services were strengthening their position in the defence naval market and were tracking two major projects, a frigate, called at the time CNGF (Common New Generation Frigate) and a submarine, a replacement for the Trafalgar Class nuclear submarine called B2TC (Batch 2 Trafalgar Class). BAe had been expecting the CNGF programme to appear after the submarine tender, and so it came as a surprise when the CNGF programme took a leap forward. The company had to review its commitment to potential partners in the two parallel programmes.

The clear front runner on the submarine programme was Vickers Ship Engineering Limited (VSEL), a company with a good track record in submarine design and manufacture. Relationships between BAe and VSEL had been good, with a history of joint project work and a growing mutual respect stemming from common work on the feasibility phase of B2TC VSEL were clear that they wanted BAe in their CNGF team because of BAe's surface weapons and system engineering capability. While VSEL were prepared to include BAe in 'their' submarine programme, and could see some advantages in a joint approach, they were confident about their ability to prosecute the submarine programme without major additional help. VSEL were determined to bid for both programmes.

On the frigate programme the situation was somewhat different. GEC Naval Systems, with their access to experienced shipyards, were the front runner, but perhaps not so clearly as were VSEL on the submarine programme. GEC saw advantages in having BAe on the frigate team. They were keen to deny VSEL any advantage on the submarine programme and could see their probabilities of a win on the submarine programme increasing if the innovative approaches of GEC and BAe were to be joined.

At a meeting to decide BAe's teaming, the Commercial Director offered the following argument. 'It doesn't make sense for us to bid with anyone but the most likely winner. As a result we should offer to team with GEC on the frigate and with VSEL on the submarine.' The Managing Director agreed. 'We have things to offer each of them and I don't intend to increase the risk of losing by going on either project to a likely loser.'

Reluctantly, the Project Director prepared work-share agreements which offered BAe's services to GEC on the frigate alone and to VSEL on the submarine alone.

Was the Commercial Director right?

The Explosion

The Managing Director spoke to GEC the following afternoon. They took the news fairly well that BAe were available for the frigate but not for the submarine.

At a big institutional dinner in London that evening, the BAe MD took the chance to break the good news to VSEL that BAe would be happy to join them in their submarine bid. Of course, they must understand that, as GEC were the front runners on the frigate, BAe would have to go with them. The VSEL Chairman was most unhappy. 'You expect us to include you in our submarine bid while you compete with us for the frigate business we desperately need to keep our yard open. I don't think so.'

The BAe MD retired to consider the position. If he now approached GEC for a position on the submarine as well, his negotiating position would be very weak.

What went wrong?

The Model

Figure 29.5 shows the Powergraph model of the dilemma. There are seven states.

- *Start* before any offer is made
- *Submarine only* where BAe has approached VSEL alone
- *Frigate only* where BAe has approached GEC alone
- *Split* the commercial director's position, where GEC is the frigate partner and VSEL is the submarine partner
- *Freeze-out* where BAe has no position
- *GEC alliance* joined with GEC on both projects
- *VSEL alliance* joined with VSEL on both projects

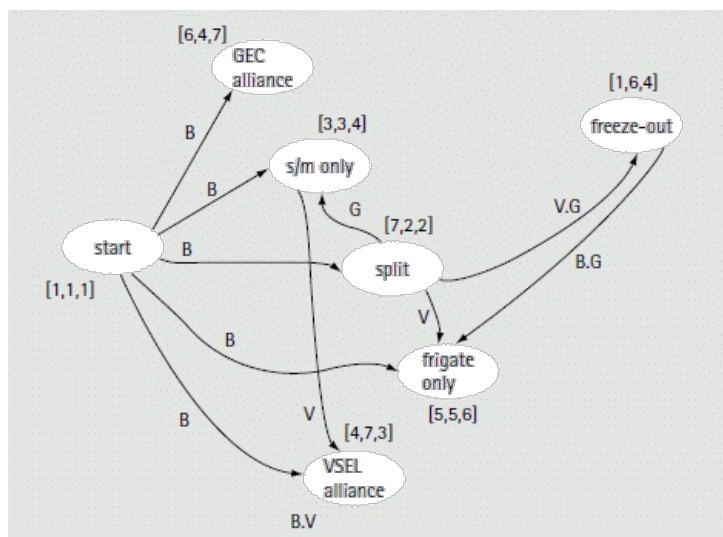


Fig. 29.5 Powergraph model of battle for Trafalgar. B = BAe, G = GEC, V = VSEL. Utilities of each state shown thus: [B, V, G]

The controlling Players' symbols, B, V, and G are attached to the relevant transitions. The only transitions which are shown in this simplified diagram are those where a player has both the power to move and has the motivation so to do. Thus, we see that once BAe makes the *split* offer the other two players have control over the situation. VSEL, in particular, has the power to reject the *split* position and (because the chain of command was shorter) did so immediately, putting the game into the state *frigate only*, less desired by BAe than either of the alliance states. BAe could have achieved a state more highly valued (6 against 5) if they had offered an alliance to GEC straight away, but the game structure shows that

- *Split* is unstable
- once having given the initiative away by offering *split*, if VSEL reject the offer there is no recovery from the moderately acceptable *frigate only* position
- if GEC had acted to reject *split* uncharacteristically quickly, there was a recovery path to an alliance with VSEL.

What happened

BAe negotiated with GEC and achieved an adequate work share on the frigate programme. Their submarine market position was shaky and the continuing desire to play in this important market led to an abortive attempt to purchase VSEL.

Shortly after that attempted purchase the results of the submarine competition were announced.

GEC won on merit and price.

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end p.902

29.6 Applicability and Limitations: A Patchwork of Theories

Game theory is a way of thinking. It requires that we should take into account that we live and manage within a system structure, in which others have interests, some of them legitimate. Our actions are no longer to be seen as being optimizing in the limited sense that we decide what we want and then plan unilaterally to achieve it because other strategists are taking their own views, and we have no alternative but to take their actions into account. This system approach is what game theorists refer to as 'strategic thinking' and in many respects it aligns itself well with the relativist concepts of core competence, for example, in strategy. Our competences are not seen as being bundles of skills measured in any absolute sense, but must be judged relative to others' competences and in a context of opportunity. There are problems, however, inherent in the economic game theory approach.

Ghemawat sums up the essential difficulties of migrating game theory from its home in economics into the adjacent field of strategic management. 'Game theory

end p.903

has taken over industrial economics but has barely had an effect on the applied field of business strategy. The gap that has opened between game theory's formidable analytical advances and its lackluster empirical applications appears to be a large part of the reason.' (Ghemawat 1997: 27). Rumelt, Schendel, and Teece (Rumelt 1991) summarize this problem of the 'semi-detachedness' of game theory in terms of the different perspectives of economists and strategists. They claim that

- The strategic phenomena themselves lie outside the domain of economic game theorists.
- The game theorists seek to explain events and mechanisms rather than to establish their normative effect.
- Game theory has a natural focus on a few economic variables to the exclusion of those variables well known to strategists as having practical importance, such as technology, politics, and organization, limits its testability and even its utility in business.
- The degree of rationality required to achieve game theoretic equilibrium may well be too demanding.
- Game theory tends to focus on external transactions while the source of competitive advantage tends to be internal.

Other writers, too, are concerned about the ease with which game theory gravitates to the most mathematically convenient assumptions for Players' rationality. Almost always the assumptions of complete rationality and ability to calculate are made, whereas there is clear evidence (Camerer, Johnson, et al. 1993) that in a social context rationalizing behaviour is limited by concepts of fair play and equity and extremes of return to any player tend not to be realized. Shubik comments that 'even if we have a full description of "the game" we have to make an inductive leap based upon our social perceptions as to what we wish to consider to be a solution.' (Shubik 1983: 12). In our application of the theory to strategy, then, we should be aware that what we consider to be an appropriate solution is highly conditioned by our collective socialized understanding of strategic behaviour, i.e. by ethics, norms of behaviour, and business expectations.

Game theory is also very distinctly end-directed in a way that most of strategy is not. 'Rationality is cast as a means–end framework with the task of selecting the most appropriate means for achieving certain ends' (Heap and Varoufakis 1995), whereas much of contemporary strategic writing stresses the need for adaptation and responsiveness to developing situations.

In general terms, Shubik sums up the situation concisely. '[I]n the current state of game theory there does not appear to be a uniquely agreed upon set of assumptions concerning intent or behaviour but there are many different solution concepts and a patchwork of partial theories which have been more or less justified in certain usages' (Shubik 1983: 12). This observation remains valid today; we should view game theory's contribution to strategy in two different forms.

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1. It provides a set of schemata for the understanding of the interaction between archetypal elements of the interactive business system in which strategy is developed and implemented. In this respect we should not expect direct and specific guidance on, say, negotiating behaviour or oligopoly effects in our industry at this time. Rather, we should see game theory as a structure of economic archetypes of behaviour upon which we can generalize and build, incorporating our own knowledge of the specifics of our situation. In spite of its abstraction, this contribution is at least as useful as that of any essentially descriptive theory.
2. We note that strategy is a grounded subject and demands grounded answers. Strategic managers seek to manage and consequently to act in the world, and quite reasonably expect specific solutions to real-world problems. Game theory has the ability to achieve this specificity through (among others) the discrete space model-ling approaches discussed above. Additionally, these specific models do allow us to combat the difficulties inherent in assuming global rationality since, because of our detailed knowledge of the situation, we may be in a better position to identify likely failures of rationality or calculation in the competitor. No such assumption is safe in a generalized model.

29.7 Future Developments

The dramatic sweep of game theory through economics has produced an intricate richness of models which are generally accepted to fall short of the needs of strategists. 'Game theorists, dissatisfied with the sensitive dependence of their predictions on the detailed protocols of games, are trying to develop predictions that hold more generally. Unfortunately it has proved impossible so far, to satisfy this craving for generality without sacrificing specificity' (Ghemawat 1997: 18). There is little doubt that this search for specificity will continue and form a strong component of the applied game theory agenda. There are arguments against this 'natural' agenda, however.

- (1) There is an assumption that the generalized game theoretic models fall short of requirements, in some sense, because they do not deal with specifics. This is to mistake their purpose which is not to provide some universally applicable model of behaviour which can be migrated without adaptation into the domain of management so much as to provide modalities of thought which we can combine, using the nuts of our experiences and the bolts of our knowledge of the particularities of the situation.
- (2) There appears to be an inherent difficulty in moving from a general game theoretic model to a specific one. The characteristics of the models which give their generalizability lead to an arbitrariness in the specific modelling. Fudenberg and

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Maskin (1986), for example, illustrate that one can persuade one particular type of game theoretic model, the non-cooperative one, to provide any behaviour one desires by assuming different kinds of incomplete information in it.

In spite of these difficulties, strategy will seek for specifics, but it is likely to find them not in an extrapolation of generalized economic models but in two topics addressed in this chapter, namely economic game theory and discrete models.

There is a widely held assumption that we live in a world of historically unsurpassed uncertainty, change, and chaos. While one might offer the observation that times were pretty uncertain and trading conditions fast moving in middle Europe for most of half a millennium, we undoubtedly have to cope with a highly dynamic environment and, moreover, one where the contacts between trading entities, because of improved communications and globalization, are more frequent. These are the very conditions in which the assumptions of evolutionary game theory thrive. We can confidently expect strategic thinking to be informed as general evolutionary economic theory and knowledge management come together. Specifically, the impact of memetic thinking (Blackmore 1999) on the horizontal strategy of a company, and particularly in terms of the strategy for innovation and adaptation to competitive environments, is bound to be extensive. This interaction between the competitive advantage of the firm and the information flow in the environment around it sees the firm being defined as much by the information which flows in and out of it as by its traditional definitions as a social construct, a bundle of skills or a nexus of contracts. The crucial difference is that in the memetic concept it is the information which is engaged in game theoretic behaviour as much as the competing firms.

Lastly, the OR-derived modelling methods provide real hope of specificity in strategic management. The joint mobilization of scenario planning methods more flexible in approach and more ambitious in their intent alongside modeling methods like drama theory and Powergraph approaches have a real possibility of providing practising strategic managers with specific answers to strategic problems.

References

Axelrod, R. (1984). *The Evolution of Cooperation*. Harmondsworth: Penguin.

Bennett, P. (1980). 'Hypergames: Developing a Model of Conflict'. *Futures*, 12: 489–507. [Link](#)

— (1986). 'Beyond Game Theory—Where?' in P. Bennett (ed.), *Analysing Conflict and its Resolution*. Oxford: Oxford University Press, 43–70.

— and Howard, N. (1996). 'Rationality, Emotion and Preference Change: Drama-Theoretic Models of Choice'. *European Journal of Operational Research*, 92/3: 603–14. [Link](#)

— and Van Heeswijk, S. (1997). *Using Software for Confrontation Analysis: A Case Study in Food Safety Policy*. Ima Conference Working Paper at Ima Conference, Wadham College, Apr. 1997–09-29.

end p.906

Binmore, K. (1994). *Game Theory and the Social Contract*, Vol. 1. *Playing Fair*. Cambridge, Mass.: Mit Press.

Blackmore, S. (1999). *The Meme Machine*. Oxford: Oxford University Press.

Brams, S. (1994). *Theory of Moves*. Cambridge: Cambridge University Press.

Camerer, C. (1991). 'Does Strategy Research Need Game Theory?' *Strategic Management Journal*, 12: 137–52. [Link](#)

— Johnson, E., Ryman, T., and Sen, S. (1993). 'Cognition and Framing in Sequential Bargaining for Gains and Losses', in K. Binmore (ed.), *Frontiers of Game Theory*. Cambridge, Mass.: Mit Press, 27–48.

Caves, R. (1994). 'Game Theory, Industrial Organisation and the Quest for Competitive Advantage'. *Journal of Business Economics*, 1: 11–14.

Fraser, N. M., and Hipel, K. (1984). *Conflict Analysis: Models and Resolutions*. Amsterdam: North Holland.

Fudenberg, D., and Maskin, E. (1986). 'The Folk Theorem in Repeated Games with Discounting and with Incomplete Information'. *Econometrica*, 54: 533–54. [Link](#)

Ghemawat, P. (1997). *Games Businesses Play*. Cambridge, Mass.: Mit Press.

Heap, S. H., and Varoufakis, Y. (1995). *Game Theory: A Critical Introduction*. London: Routledge.

Hirschleifer, J., and Riley, J. (1992). *The Analytics of Uncertainty and Information*. Cambridge: Cambridge University Press.

Howard, N. (1971). *Paradoxes of Rationality*. Cambridge, Mass.: Mit Press.

— (1998). 'N-person "Soft" Games'. *Journal of Operational Research Society*, 49/2: 144–50. [Link](#)

— Bennett, P. G., Bryant, J., and Bradley, M. (1992). 'Manifesto for a Theory of Drama and Irrational Choice'. *Journal of Operational Research Society*, 44: 99–103. [Link](#)

Jervis, R. (1978). 'Co-operation under the Security Dilemma'. *World Politics*, 30: 167–214. [Link](#)

Morris, P. (1992). *Introduction to Game Theory*. New York: Springer Verlag.

Powell, J. (1999). 'Powergraph—a Network-Based Approach to Modelling and Managing Corporate Strategic Conflict and Co-operation'. *Journal of Operational Research Society*, 50/7: 669–83. [Link](#)

Rasmusen, E. (1989). *Games and Information*. Oxford: Blackwell.

Rosenhead, J. (ed.) (1989). *Rational Analysis for a Problematical World*. Chichester: J. Wiley.

Rumelt, R. P., Schendel, D., and Teece, D. (1991). 'Strategic Management and Economies'. *Strategic Management Journal*, 12/Special Issue: 5–29. [Link](#)

Saloner, G. (1991). 'Modeling, Game Theory and Strategic Management'. *Strategic Management Journal*, 12: 119–36. [Link](#)

Schelling, T. (1960). *The Strategy of Conflict*. Oxford: Oxford University Press.

Shubik, M. (1983). *Mathematics of Conflict*. Amsterdam: Elsevier.

Thompson, L. (1998). *The Mind and Heart of the Negotiator*. London: Prentice-Hall.

Von Neumann, J., and Morgenstern, O. (1944). *The Theory of Games in Economic Behaviour*. Princeton: Princeton University Press.

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30 Strategy, Heuristics, and Real Options

Bruce Kogut
Nalin Kulatilaka

30.1 Looking Inward and Outward

STRATEGIZING is the application of heuristic frames to analyze the world and to generate normative evaluations of potential avenues of implementation.¹

¹ This chapter is based on Kogut and Kulatilaka (1992; revision 1994); the published version Kogut and Kulatilaka (2002) considers in more depth organizational theories.

Yet, like many professional schools caught between academics and application, strategy research is often ambivalent about the implications of valuing the development of heuristics. Because a test of a good heuristic is its application, the relevant community by which to evaluate such contributions appears often to be the commercial world.

This tension is probably more functional than commonly realized. Professional schools of business share, as Simon noted, commonalities with schools of design, e.g. engineering or architecture. Strategy research reflects competing ideas about

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how the world looks, or what the world needs.²

² Mintzberg (1990) suggests there are no less than ten schools of strategic planning.

However, like their counter-parts in engineering or architecture, strategy researchers distinguish themselves from practitioners by their attention to an articulation of theory and evidence.

One of the most important bodies of strategic ideas at large today are associated with the notions of capabilities or core competence. The book by Gary Hamel and C. K. Prahalad *Competing for the Future* has sold more copies than any other Harvard Business School book. The resource-based theory of the firm, which has seized the intellectual agenda from industry analysis, views the unique capabilities of the firm as the cornerstone of sustainable rents. Ned Bowman (1995) has made the distinction between strategies that look in the mirror and those that look through the looking glass. It is not surprising that during a time of restructuring and re-engineering, strategy researchers should shift the emphasis from industry analysis to the internal sources of competitive advantage. The international competition and the introduction of information technologies have, as the extensive literature on American competitiveness has documented, generated considerable competitive pressures on corporations.

This emphasis on looking in the mirror begs the question of how to choose among alternatives. Hamel and Prahalad (1994) essentially invert this framing by proposing the concept of white spaces in the topography of existing businesses to identify valuable avenues of exploration. This language is strongly reminiscent of the commonly made distinction between exploitation and exploration (see Hedlund and Rolander 1990 and March 1991).

We propose that the real options literature provides an appropriate theoretical foundation for the heuristic frames suggested as ways to identify and value capabilities. Since capabilities are platforms that create a generic set of resources, they represent investments in future opportunities. The distinction between exploitation and exploration has an exact correspondence in the difference between net present value and option valuation. The attractiveness of real option thinking is only superficially in the obvious characteristic of forcing managers to think about the value of flexibility in response to uncertain events. The more fundamental contribution is to require that the valuation placed upon a strategy is derived from dynamic equilibrium prices in the market. In effect, real option valuation marries the resource-based view with industry positioning by disciplining the analysis of the value of capabilities by a market test.

We proceed by first characterizing what are heuristics and how real option theory and core competencies are related through the concept of capabilities. Capabilities reflect irreversible investments, because of the costliness of transforming the organizational knowledge in a firm. We illustrate these ideas through a stylized mathematical description of the problem of adopting radical change. This formalization

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clarifies that the benefit of a real options heuristic is the imposition of a market test to derive the valuation of capabilities.

30.2 Heuristics

A good heuristic has four qualities: it is easy to use, easy to communicate, provides a better direction than ones currently employed, and motivates people who have to implement the strategy. The Boston Consulting Group growth matrix is the canonical heuristic. It requires only two data inputs of market growth and relative position. The famed ideograph of stars, dogs, question mark, and the cash cow have an Orwellian Rosebud value, i.e. they are comprehensible and memorable.³

³ This aspect of communicability has been underestimated. However, in an increasingly more integrated 'community of practitioners', the importance of ideographic and metaphoric communication is critical to the success of information technology implementation and performance.

The implementation leads to a clear motivation. As the CEO of General Electric stated, the objective of GE's business units is to be number 1 or 2 in world markets. However, the not-so-minor drawback is that the heuristic often gives the wrong direction.

Because heuristics are intended to be used, they have many qualities that upset the norms of academic research. The objections come from all quarters. Sociologists point out that such heuristics reflect prevailing norms of style or conceptions of control. Cognitive psychologists note that heuristics are prone to type 1 and 2 errors, that is, managers ignore evidence of misfit and overstate the possibility of success. Social scientists are quick to criticize the absence of formal theory and empirical evidence.⁴

⁴ For overestimation bias, see Kahneman and Lovallo (1993); for a discussion of a lack of theory, see Simon's (1992) discussion of the professional school. These biases are critical to understanding why managers are loathe to 'kill an option'.

Ad hoc field research indicates that well-educated Ph.D. business faculty members frequently moan over the humiliation of teaching heuristic frames that are not clearly derived from their formal education.

Heuristics are useful because formal theory often does not suggest operational rules, or is not credible, for the problems decision-makers confront in actual conditions. Since they are intended to guide action, heuristics are designed to motivate. From a normative perspective, overestimation is an evolutionary attractive property for assembling human effort; an emphasis on sober assessment screens out people who are most likely inclined to act.⁵

⁵ An interesting set of statistics are MBA entrance data. Whereas Wharton MBAs score at the top of the GMAT percentiles, their GPAs are usually around B+. These are smart people who do not like to study too much.

Because they are meant to influence action, they are biased toward current conceptions of the world; they are also liable to be dispensed as these conceptions change.

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Heuristics have the advantage of countering some cognitive biases, but at a cost. In a study on plant scheduling, Bowman (1963) found that managers would do better if they used linear estimates from their experience rather than tried to optimize in response to each situation. In real time, the search for optimal strategies can be too costly or liable to be influenced by recency effects (e.g. the arrival of new information). Kunreuther (1969) modified these findings that rules cued to selective environmental information improve actual decision-making.

One of the merits of a heuristic is its real-time utility. Studies on innovation show remarkable trade-offs between costs and time for innovations (Scherer 1967; Mansfield 1988). Field research and experimental evidence show ample evidence that people rely upon rules of thumb and known routines in situations constrained by time, even for simple problems for which there exist optimal rules. Because decisions must be made, managers and firms often transfer these sub-optimal rules to settings that are poorly suited to these proven heuristics.⁶

⁶ See Allison (1971) on frames; psychology experiments of Bartlett (1958) and Cohen and Bacdayan (1994) for evidence on schemata and sub-optimal transfer.

The limits to the robustness of a heuristic are usually experiential, because the theory is rarely explicit or is ignored.

30.3 Heuristics and Strategizing

The history of strategic planning tools documents the applicability and limitations of heuristics. Following distinctions made in cognitive science, we separate a heuristic into its cognitive frame and the rules of search. A cognitive (or heuristic) frame refers to the 'representation' of the problem and solution space. The heuristic rules of search are the algorithms by which solutions are found in the represented solution space.⁷

⁷ See Minsky (1985: 74, 243–53) for an example. The definition of heuristic search is discussed in Bowman and Moskowitz (2002).

Table 30.1 compares three cognitive frames for developing business strategies. The BCG cash flow matrix 'works' to the extent that the theory of scale and experience driving down cost is the proper characterization of value creation. From the initial data, it bootstraps from

observations on market growth and relative positions to evaluate whether a firm can dominate a market. Though a fairly simple heuristic, it shared the common bias of its times that size drives success, as opposed to the more modest inference that size is the outcome of success.⁸

⁸ For examples of this bias, see Chandler (1962) and Servan-Schreiber (1969). Only in light of this backdrop is it possible to understand the contribution of Piore's and Sabel's (1984) counter-revolution in thinking about size and performance.

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Table 30.1 Strategizing as cognitive frames

Cognitive frame	Theory	Initial data	Analysis	Implementation
Experience curve (BCG)	Scale and experience drivers	Attractive (growing) markets	Relative market position	Dominance by scale
Industry analysis	Industrial economics	Industry forces	Cost or differentiation strategies	Value-chain exploitation
Capability	(Real options)	Intended strategy	Core competence	Exploratory business strategies

Porter (1980) developed his industry analysis in the immediate aftermath of the oil shock and during a period of depressed corporate profitability. Its theory is derived from an industrial economics that appears as antiquated by contemporary advancements, but reflects the preoccupations of a time when the historical peaking of oligopolistic measures of concentration suggested that industry structure deeply influenced corporate performance. It is, in many ways, an inevitable implication of the BCG analysis that a world in which a few firms grow to dominance should lead to a focus on how to attain the conditions of structural stability. The initial data on industry forces serves to inform (though the mapping is not clear) the choice between low-cost and differentiation strategies. The implementation proceeds through an evaluation of the value-chain, with the criterion being contribution to profit. Compared to the requirements of the BCG growth matrix, the methodology is intensive in the use of data.

The core competence concept arose in the late 1980s during the height of reengineering propelled by acquisitions and new information technologies. It is a direct response to the reputed financial pressures from financial markets dominated for the first time by institutional investors (see Useem 1996). The formulation by Hamel and Prahalad (1994) suggests that the initial data are in the spirit of understanding the intended strategy of the firm that should be grounded in a distinctive competence.⁹

⁹ Selznick (1957) was one of the first to develop the idea of distinctive competence, which was absorbed into the language of the early business policy literature, as well as of writings on the value-added chain.

This competence is defined by three attributes: it should be 'extendable' to multiple markets, it should be hard to imitate, and it should satisfy a derived customer demand (Hamel and Prahalad 1994: 202–7).

The theoretical foundations to this view are several, from the reasoning on why knowledge is hard to imitate to the evolutionary theories of firm growth. From a decision theoretic perspective, the core competence framing lends itself readily to a

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real option interpretation. A real option is denoted by an investment decision that is characterized by uncertainty, the provision of future managerial discretion to exercise timing, and irreversibility.

These three elements are jointly required for the application of a strategic options heuristic. An option has value only if there is uncertainty, though defining the relevant source of the uncertainty is not trivial. An operationally important element of design is the provision of discretion, such as the staging of an R&D project to correspond to discrete points of go–no go decisions.

Irreversibility is an easily overlooked feature and signifies the inability to costlessly revisit an investment or decision. A classic example is the BCG categorization of the 'dog' product division which a firm should divest, assuming there is a market. However, the ability to divest a poorly performing division is, as Winter (1987) observes, rarely exercised without incurring a loss on the original investment. In this context, irreversibility is the inability to recover the investment costs already expended for the product division.

30.4 Capabilities as Strategic Options

This definition of a core competence as a strategic option is close to the argument put forth by Barney (1986) regarding the resource-based view of the firm. To Barney, the creation of entrepreneurial rents is fortuitous. If managers understood the value creation process, the knowledge through imitation would lead to the immediate erosion of these rents.¹⁰

¹⁰ The inimitable observations in Barney are more fully explicated in a related literature on knowledge of the firm. See Zander and Kogut (1995) and Szulanski

(1995) for empirical studies that measure inimitability, or tacitness.

The presence of a strategic factor market serves to arbitrage the value of these assets to guarantee a competitive return. (We return to this observation later to motivate the explicit use of a traded security for valuation of a real option.)

The important difference between this early statement of the resource-based view of the firm and core competence is the latter's insistence on the value of a resource as derived from its future but uncertain use. In the sense that Barney relies on market valuations to back into his identification of unique assets, he is consistent with the view that the market values the use of these assets in reference to their potential use by firms bidding for their ownership. But he makes an incomplete inference, namely, that these firms must have differential information. An equally plausible insight is that firms differ in their opportunity set, inclusive of the organizational features that are costly and time-consuming to acquire. Consequently, some firms will discover

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profitable projects, where the 'excess rents' are earned on their organizational, not physical capital, assets.

Real option theory bridges the positioning and core competence by dynamically deriving the value of capabilities simultaneously from two discrete operating states: their value as 'is' and as 'could be'.¹¹

¹¹ See Dixit and Pindyck (1994) and Amram and Kulatilaka (1999) for extensive discussions on the application of real options.

The 'as is' evaluation is a net present valuation based upon an evaluation of the range of possible pay-offs to operations currently in place. The option value is derived from the discretion to alter these operations to take advantage of future opportunities. In this simultaneous valuation of both operating states (they are clearly dependent), the analysis derives the valuation by creating a shadow security based on the market value of the strategic factor.

It is the identification of the opportunity set, as established through market valuations, that should drive the identification and valuation of core competence. Some writers fail to make this observation altogether. For example, Teece, Pisano, and Shuen write:

We define those competences that define a firm's fundamental business as core. Core competences must accordingly be derived by looking across the range of a firm's (and its competitors') products and services... The degree to which a core competence is distinctive depends on how well endowed the firm is relative to its competitors, and how difficult it is for competitors to replicate its competences. (1997: 516)

This statement is, however, rather problematic. It derives a core competence from the description of a firm's businesses, and in comparison to competitors. Finally, it notes that distinctiveness depends on a firm's endowment and the difficulty for the assets to be copied.

The missing element in this analysis is, of course, value. A firm may be well endowed with patents making it difficult for competitors to imitate. However, the important question is whether these endowments, which we might also call more generically the knowledge of the firm, is useful not only to current, but also to future applications. This question is not answered by a notion of dynamic capabilities, or of combinative capabilities, unless the normative criterion is the identification and investment in core competences in reference to their potential uses. This objection is not petty, for it is easy to imagine that without market discipline on the analysis, the potential candidates for core competence quickly multiply.¹²

¹² One of the authors visited an optical fiber business unit of a large company. In response to a question about core competence, the factory and business managers identified the capability to quickly code the fiber in color packaging.

There is another way to think about this problem, suggested by Winter (1987), as a broader formulation along the lines of optimal control. Winter (1987: 180–1) states, 'From evolutionary theory comes the idea that a state description may include organizational behavioral patterns or routines that are not amenable to

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rapid change, as well as... more conventionally denned assets. It is by this route that a variety of considerations that fall under the rubrics knowledge and competence may enter the strategic state description.' This suggestion seems odd, for optimal control requires an excessive belief in the rationality and knowledge of decisionmakers, a belief that Nelson and Winter (1982) have strongly criticized. However, it is not a bad heuristic frame (Winter uses this term) if some of the insights of a capabilities approach are properly specified. A conventional formulation is to describe the characteristics of the state description and allow the decision-maker discretion over a few control variables, e.g. technologies or output. A transformed formulation deprives the decision-maker of control over some variables and, in effect, captures the constraints and opportunities of capabilities through a richer description of the given state in a decision context.

Consider the example of flexibility through the installation of new automated equipment. A conventional approach assumes that this

technology enters into the description of the state and provides the decision-maker with the choice of whether to exercise flexibility. However, a new capability is not determined by the capital purchase but by the presence of an organizational system that identifies and supports such flexibility. Because technology can be bought, or people hired into a firm, it is the organizational constraints that are often the most binding. Robert Stempel, the former head of General Motors, noted: 'We've tried automation without knowledgeable workers, and it doesn't work. We put a tremendous amount of automation and electronics into our Cadillac plant in Hamtramck. And we couldn't run it because our people didn't understand what we were asking them to do.'¹³

¹³*Fortune*, 1992; cited by Bernard Wolf and Steven Globerman, 'Strategic Alliances in the Automotive Industry', mimeo, York University, 1992. See also the discussion in Ittner and Kogut (1995).

The study by Ittner (1996) found that a major problem in the exercise of flexibility at General Motors was that the accounting system focused on unit labor cost variances; there was no measure for whether flexibility was under- or over-utilized.

This accounting problem is reflected also in the capital budgeting problem. Just like accounting variances do not measure flexibility properly, net present value techniques wrongly estimate the value of building capabilities.¹⁴

¹⁴ Winter (1987) suggests net present value as a measure, which is appropriate for the case without uncertainty. Most surveys on the use of capital budgeting techniques show that almost all large corporate firms use net present value calculations for investment decisions. See Kogut and Kulatilaka (1992) and Baldwin and Clark (1992, 1994) for a discussion why investment in capabilities is not a net present value of cash flows but a real option valuation.

The important insight into the failure at General Motors is that new technology and organization are complements. Even though technology can be purchased, the organizational complement requires a longer period of experimentation and gestation. In other words, the organizational value of capabilities depends upon the potential uses of flexibility in future but uncertain states.

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It is, consequently, reasonable to think of a firm's technology and organization as forming a coherent and dynamic set of capabilities whose value is derived from their value in future and stochastic states of the world. Such capabilities as speed of production or the ability to produce a particular quality are created through the possession of a set of technologies and of organizing principles. Given these capabilities, the firm is endowed with the resources that may be exploited strategically in the market.

30.5 New Capabilities as Organizational Discontinuities

It is useful, before starting, to explain why investments in capabilities are irreversible because of the tight coupling of technology and organization. The close relationship between organizing principles and technology is apparent in standard definitions in the literature on innovations and organizational sociology. Scott (1995: 227) defines technology as including 'not only the hardware used in performing work but also the skills and knowledge of workers, and even the characteristics of the objects on which work is performed'. Scott's definition encompasses the standard economic distinction between new products and processes and the embodiment of human capital formation in better techniques and products.

By technology, then, we mean the physical and human capital stock; by organization, we mean the way physical capital and people are jointly coupled through organizational routines, processes, incentive schemes, and governance structure. For example, a system of mass production consists of the serial placement of capital equipment coupled with an assembly line of workers performing standardized tasks and under staff supervision. The technology is embedded in the equipment; the organizational knowledge is the principle by which work is arranged and supervised in conjunction with the use of this technology.

An area of debate has been whether to treat major technological innovations as radical or incremental. The organizational literature, especially Tushman and Anderson (1986), has offered the resolution that these innovations can be characterized as radical or incremental depending upon whether they destroy or enhance a firm's competence (see also Henderson 1993). This resolution raises the more fundamental problem that a firm, by its ability to recruit new engineers and managers, should have the capacity to alter its technological competence. The costs of switching to a technology should, by this reasoning, consist of the costs of hiring new individuals trained in the new science or engineering technology. Yet,

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clearly, the difficulty of adopting new capabilities cannot be explained by the relatively open recourse to the labor market in most advanced capitalist countries.

This reasoning ultimately leads to the consideration that the radicalness of an innovation has less to do with the novelty of the technology than its conformity with existing knowledge of the firm, i.e. the ways by which work is organized and power is distributed. Since the way

work is organized will vary by firms, then the radicalness of a technological innovation cannot be determined independent of a particular organizational context. Switching, or adoption, costs are strongly contingent on the current organization of work.

If radicalness of a technological innovation is a question of the organization, it follows that the potentially most radical kinds of innovation are those which alter directly the method by which work is organized. New ways of doing things are often difficult to understand and implement. They also pose, by their very nature, threats to the existing agreement on the allocation of power.¹⁵

¹⁵ Nelson and Winter (1982), consequently, refer to organizational routines as 'truces'.

To draw out why, consider the very important literature in organizational behavior concerning the suitability of particular organizational and technological combinations. One of the most perplexing questions in organizational behavior is the failure to identify clear matches between technologies and organizational structures. Yet, the findings are rather ambiguous in this regard. The line of work begun by Woodward and later the Aston school that linked performance to particular technological and organizational combinations has not resulted in clear relationships. Indeed, the most robust finding appears to be between organizational size and output volume rather than between particular structural and technological configurations. Indeed, even the findings between size and authority relations have been found to be sensitive to contextual variables, such as culture.¹⁶

¹⁶ See the review given in Dosi and Kogut (1993) and the summary of the work comparing US and Japanese organizations (Lincoln 1993).

Dosi and Kogut (1993) proposed that the failure to find robust relationships has been due to the tendency to theorize element-to-element correspondence, such as high volume production with vertical hierarchy¹⁷

¹⁷ This point is implicit in the lattice formulation of Milgrom and Roberts (1990), where a firm's choice is constrained by technical complementarities. It is, however, difficult to see the implications from their formulation for the many studies on organizational performance.

(see Figure 30.1a). The empirical results do not show that these are complements when other factors are controlled. Alternatively, the correspondence might be set-to-set, where a set of organizational practices maps onto a set of technologies. The data might not reveal that A and B exist as complements; all we observe is A and C and D and B. Complementarities need not be unique between any given technology or organization, but they still should be relationally bounded. The recent findings by MacDuffie (1996) on 'bundles' of human resource practices in auto plants indicate that there is a logic that relates organizing practices to each other, and to technologies (see Figure 30.1b).

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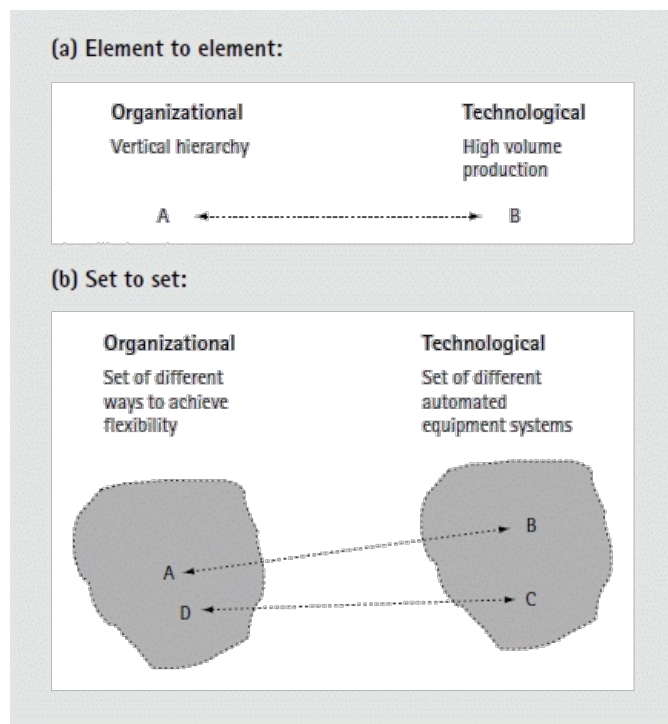


Fig. 30.1 Correspondence of technology and organization

As suggested in the opening citation of Robert Stempel, the experience of General Motors and other car manufacturers, as confirmed in MacDuffie's study, is that adopting the new capabilities of flexibility and speed requires changes in automation and organization. Between these two sets, there are many functionally equivalent complements, but there are no unique element-to-element correspondences.¹⁸

¹⁸ A good example of the linking of capability and technology is modular design, in which modularity provides an option to improve a product by component; however, the product design has to be backed by an organizational structure to allow specialization. See Baldwin and Clark (1993).

This description captures also the idea of co-evolution of technology and organization through two key features. First, technology and organization do not represent random assignments, nor is their coupling simply at the discretion of managers. Rather, the matches of a technology and organizing principle are constrained to reasonable set-to-set correspondence. However, within these 'developmental' constraints (to borrow from biology), improvements in technology and organization are correlated through experiential learning. For example, the introduction

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of mechanical equipment to move the incomplete chassis from one line to the next required the organizational innovation to increase the 'tightness' of the coupling of serial work processes in the factory. In other words, technology and organization are dynamically coupled in their evolution.

The tight coupling of technology and organization means that the costs of organizational change means that firms will persist in their old ways beyond the recommendation of the net present value. This persistence defines a range of inertia, or what we call a hysteresis band. Because organizational change is disruptive and hence discontinuous, managers hesitate to change radically their organizations, hoping perhaps that future states of the world would provide more appealing environments.

Figure 30.2 provides a simple illustration of this point. A firm can choose between two complementary systems, called low and high variety. The important issue is whether the relative value of gaining the capability of variety is enough to offset the costs of discontinuous change. The choice of capabilities is, as we depict it, derived from the market price placed on variety. Because of uncertainty over the evolution of the value of variety and the costs of adoption, managers rationally might choose to persist with inferior techniques before they are confident of future developments.

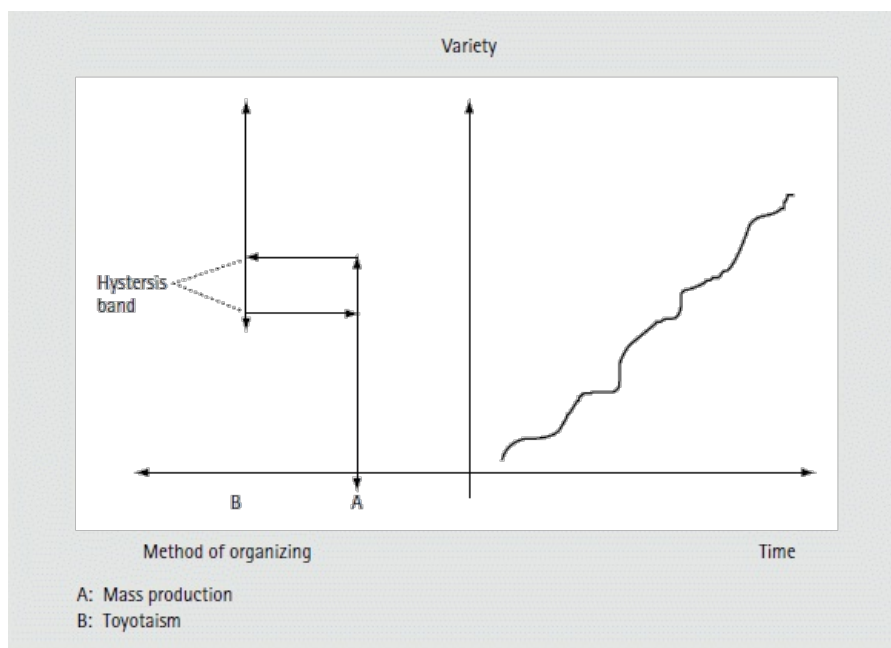


Fig. 30.2 The implications of hysteresis on the choice of new techniques

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In the analysis below, we develop a modeling framework by which to examine this hysteresis band and the complementarity of organization and technology contingent upon a stochastic parameterization of the environment. The formal description explains how investments in organizational and technological capabilities are derived from their evaluation in the market. We suggest that knowledge accumulates in terms of two activities: competence in the use of particular technologies and in the organizational capability by which this

technology is applied.

The problem facing the firm is to choose this set such that it tries to maximize its value in reference to its expectations on the evolution of prices and innovations in capabilities. In this formulation, the nature of the environment and strategy play an important role in shaping the capabilities of the firm. This problem is dynamically complex, as the firm must consider not only how its choice influences current profits, but also the learning of future capabilities.

This descriptive formulation clarifies two central claims. The current capability set and prevailing environment and market structure influence the choice and performance of a set of capabilities. The second claim is that there is a set-to-set correspondence between families of technology and organization that bound the feasible bundles of practices; but there is no unique element-to-element correspondence between a particular organizational practice and technology.

30.6 A Formal Description

The market price of a similar firm provides the most direct link between the performance of a capability set and prevailing market conditions. This market price is not the value of the core competence. Rather, it permits a valuation of the organizational capability by identifying a correlated asset in the relevant 'scarce factor' market. Value of a capability is then inferred (at times calculated) from the observed price dynamics that replicate the pay-off to the real option. This replication is the device through which market discipline is imposed on the identification and selection of core capabilities, thus imposing financial market discipline.

To elucidate the intuition, consider again the framing of a real options problem. The organizational assets of a firm provide an option to spend a fixed amount to procure a new capability by purchasing a physical asset at the end of one year. If the option is exercised, then the resulting project value has the risk characteristics of an existing traded firm. For example, a pharmaceutical firm is considering an entry into biotechnology. It currently has a strong capability in conventional drug development that provides an option to enter into biotechnology at an estimated cost. This cost is idiosyncratic to this firm. However, once it enters into the market,

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its new business carries a market risk similar to other biotechnology firms. This example illustrates why the price of other firms does not give the value of the core capability, since the cost of entry is idiosyncratic to each firm. However, the price dynamics of other firms provide information on the factors (e.g. risk) that drive the value of the option to enter in this market.

The value of a financial option depends on the current share. Black, Merton, and Scholes derived this value through an option pricing formula. The simple, but critical innovation was their eventual recognition that by composing a replicated portfolio, the value of the option could be perfectly tracked by a levered position in the traded stock. Therefore, a risk-free portfolio can be constructed by holding a combination of the stock and options.¹⁹

¹⁹ As the stock price fluctuates, the portfolio weights to reflect the changing sensitivity of the value of the option to the stock price.

Hence, once the range of possible future stock prices is known (from its volatility), the market price of the option can be inferred by risklessly discounting the possible option pay-offs.

In many instances, there may not be a traded security whose price perfectly tracks the value of the resulting capability. In such cases, we can use one of two possible tracks to retain the market discipline. First, there maybe a bundle of pure assets (an index) that captures risk characteristics of the capability. For example, 'crack spread' on crude oil as a proxy for the gross operating margin of an oil refinery; the SOX/SXE equity index of semiconductor manufacturers serves as a proxy for the value of the production from a chip fabricating plant. Second, the value of the capability depends on the price of product or factor prices whose risk is spanned by traded assets in the economy. The value of the capability then is obtained by explicitly specifying the profit function using these prices as an argument.

A simple example is a microprocessor, whereby a quality-adjusted price can be expressed as the ratio of price to the processing speed (or 'mips' for millions of instructions per second). An increase in processing speed implies that the price for one 'mips' has declined. This quality-adjusted price of the output enters the profit function. Thus, the price dynamics of chips directly drives the expected cash flow from operating the 'as is' assets and from possibly exercising the option to exploit the 'could be' investment.

30.6.1 The Economic Environment and Quality-Adjusted Prices

Let us use this last example to specify, descriptively, the method by which the price dynamics of the scarce factor is inferred through observations on a traded output. We then will take this description of the price dynamics to derive the profit function. Once we have this profit function, we then can describe the qualitative properties of how an investment in new organizational capabilities influences the

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definition of a core competence. The fundamental conclusion of this exercise is to motivate the definition of a core competence as the capabilities that provide the best response to prevailing market opportunities.

In order to identify and value a core competence, we must specify the evolution of the quality-adjusted price which we call Θ . However, since Θ is not a pure security but is the observed price of a scarce factor, its price characteristics need not necessarily evolve according to its equilibrium risk characteristics. Local supply and demand conditions and technological innovation determine the evolution of Θ . In particular, the expected rate of appreciation of Θ may be different from its risk-adjusted equilibrium rate of return. Hence, the risk-neutral dynamics of Θ will depend not only on the risk-free rate of interest but also on the difference between the equilibrium and actual growth rates of Θ .²⁰

²⁰ This is analogous to a dividend on a stock or convenience value derived from a commodity. See chapter 13, Hull (1997) for a general model on valuing derivative securities. More extensive treatments can be found in Dixit and Pindyck (1994) and Amram and Kulatilaka (1999).

We assume Θ to be exogenously determined and characterize its evolution by stochastic process

$$\Delta\theta_t = \underbrace{\mu(\theta_t, t)\Delta t}_{\text{Deterministic growth}} + \underbrace{\sigma(\theta_t, t)\Delta Z_t}_{\text{Smoothly evolving uncertainty}} + \underbrace{\kappa dq}_{\text{Discrete innovations}}$$

where μ is the expected growth rate of Θ , σ is its instantaneous volatility, ΔZ_t is standard Normal distributed, dq is a Poisson process with intensity parameter λ and κ is the random percentage jump amplitude conditional on the Poisson event occurring.²¹

²¹ More generally, we could define this process in vector form over a set of Wiener processes. See Merton (1976).

This discrete-time process captures the main features of the notion of a scarce factor market with technological innovation.²²

²² For reasons of exposition, we work in discrete time.

The drift term reflects the expectations regarding technological progress. For example, the performance of memory semiconductors follows a fairly predictable path, with performance improvements occurring every few years and prices declining subsequently.

Changes in the quality-adjusted price may also reflect unpredictable shifts in consumer preferences. For example, an increase in oil prices would lead consumers to prefer cars which save on fuel consumption. As long as these changes are fairly smooth, it seems reasonable to capture this uncertainty in volatility.

Other changes may be more radical, such as the arrival of new organizational innovations. These changes would appear as a sudden jump in price to a firm. Recall that these are quality-adjusted prices. The introduction of assembly-line methods at Ford appeared to competitors as a sudden decrease in price. However, as Raff and Bresnahan (forthcoming) show for the history of the automobile, part of the competitive effect of new techniques was accomplished through changes in quality,

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holding the nominal price the same. They estimate that quality-adjusted prices fell by 5 per cent a year from 1906 to 1940; about 60 per cent of this decline was due to falling production costs and 40 per cent to improved quality. We capture these impacts of innovative change by allowing price to evolve in response to quality and process innovations.

A market-traded proxy for the quality-adjusted price of computer chips can be constructed as the price index of chip-making firms. Such an index will span the relevant risk characteristics. The rate of return on the index will proxy the equilibrium return. However, to the extent that the growth rate of the quality-adjusted price deviates from the traded index, we correct the actual price process. This deviation will enter into the risk neutral representation of the option pricing model as a shortfall from equilibrium akin to a convenience yield.²³

²³ See McDonald and Siegel (1984); an application of adjusting for the shortfall can be found in Kogut and Kulatilaka (1994b).

Since the total risk characteristics of the quality-adjusted price, Θ , is similar to that of the proxy variable, the volatility can be estimated from the market for the chip company stock index. In fact, options contracts on such an index (SOX/SXE) are traded at the Philadelphia Stock Exchange. The implied volatility of these options provides a market source for information on the standard deviation (σ) given in the above equation.

30.6.2 Profit Functions

Having described the evolution of quality-adjusted prices, we can now turn to describing the relationship between capability sets of the firm

and its profit function. Consider a firm that has the set of capabilities c , where $c \in C$ is the set of all feasible capabilities.²⁴

²⁴ C will include technological and organizational characteristics as well as learning opportunities.

The firm faces exogenously determined 'quality-adjusted prices', θ . The single-period profit obtained when operating under the set of capabilities c and facing prices θ_t is denoted $\Pi(\theta_t, c)$. This simple description captures the idea that firms are heterogeneous and their profits are determined both by the price of output and their organizational capabilities.

Given this set of capabilities and the realization of θ , we examine how the firm chooses its investment and production strategy. As an example, consider the case where C contains 'mass' and 'lean' production families with their associated organizational structures. Each family of production techniques can contain many distinct technologies. They are, however, coupled with the same organizational structure. Hence, a technology family refers to all technologies that can be operated within a single organization.²⁵

²⁵ For now we assume that families do not overlap, in that each technology can only belong to a single family. This assumption can be easily relaxed.

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Suppose the firm is currently employing technology in the 'mass' production family, i.e. $c_m^i \in c_m \in C$. The firm's problem is to decide what capabilities it should use in the current period. Specifically, its choices are (a) continue using c_m^i (b) continue in the same family but make incremental technological improvements by employing a better mass production technique, c_m^k or (c) make discontinuous organizational switch and employ lean production technique, c_l^k . Choices (a) and (b) reflect 'as is' evaluations; only (c) involves a 'could be' alternative.

Furthermore, a capability provides a dynamic representation of the firm. A firm's capabilities not only serve to meet the current demands but also place it in a position to make further investments to launch new products to meet changing demand conditions. A capability endows the firm with an ability to change. A static profit function, therefore, cannot be a complete description of a capability. The description of capability must capture the dynamics that determine the type, level, and timing of investment needed to transform capabilities over time.

In other words, we must consider explicitly the costs of switching from one capability to another, be it from mass into lean, or conventional pharmaceuticals to biotechnology, from a current capability such as mass production to a technique in the lean production family. Switching from one capability to another incurs large costs due to reorganization.²⁶

²⁶ For simplicity we are assuming that switching across organizations only incurs organizational costs. In effect, we assume that switching from any mass technology to any lean technology incurs the same cost. This can easily be generalized to include both technological and organizational costs.

We denote these large organizational costs of switching as Δ_{ij} . For example, the cost of switching from c_n (mass production) to c_l (lean production) can be denoted as Δ_{nl} .

Within an organizational capability, however, switching costs are small, but not insignificant. At the same time, continuing within the same family enables the firm to capitalize on local learning effects. If the firm continues in c_m^i or moves to a better mass technique c_m^j , then it will subsequently learn by doing. However, switching from the i^{th} to the j^{th} technology may still incur technological costs. We define the local learning benefits in mass production as $-o_{mm}$ and technological switching costs δ_{ij} .

To summarize the magnitude of switching costs between all combinations of capabilities and technologies, we denote the cost of switching from c_m^i capability to c_l^j will be

$$\delta_{ml}^{ij} = \underbrace{T_{ij}}_{\text{Technological change}} + \underbrace{\Omega_{ml}}_{\text{Organizational learning}}$$

where

$$T_{ij} = \begin{cases} \text{technological cost} \\ \delta_{ij} & \text{if } i \neq j \\ \delta_{ij} & \text{if } i = j \\ \text{technological learning} \end{cases} \quad \Omega_{ij} = \begin{cases} \text{organizational cost} \\ \underbrace{O_{ml}}_{\text{organizational learning}} & \text{if } m \neq l \\ -O_{mm} & \text{if } m = l \end{cases}$$

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Table 30.2 T_{ij} and Ω_{lm} switching cost pairs

		c_m		c_l
		c_m^1	c_m^2	c_l^3
c_m	c_m^1	[-]	[+]	[++]
	c_m^2	[+]	[-]	[++]
c_l	c_l^3	[++]	[++]	[-]

Consider a special example where mass production family c_m contains two technology modes c_m^1 and c_m^2 and lean production family c_l contains a single technology mode c_l^3 . Table 30.2 presents the switching matrix containing the technological and organizational cost pairs. A negative entry indicates learning value from continuing to use the same technology or organization. A larger sign reflects a larger value.

More generally, the diagonal elements in the switching cost matrix will contain negative entries indicating the learning value.

We can now write down the firm's maximization problem. Each set of capabilities c_m^i has an accompanying profit function that is obtained by solving the usual profit maximization problem:

$$\Pi(\theta, c_m^i) = \max_{y \in c_m^i} \theta \cdot y$$

where θ is a vector of quality-adjusted input and output prices and y is the vector of input and output levels that are determined by the capability set.

This simple expression indicates that the firm's ability to choose the best strategy is contingent on its organizational resources.

30.6.3 Critical Capability Set

30.6.3.1 Static Profit Maximization when there are no Switching Costs

To fix ideas, let us first consider the static case where the firm maximizes its single-period profits. Suppose the firm can costlessly obtain any feasible capability in C . Then we can define a static capability c^* as

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$$c^*(\theta) = \operatorname{argmax}_{c \in C} [\Pi(\theta, c)]$$

(Argmax simply picks the capability that achieves the optimal response for a given θ .) In our simple example, c^* picks an element from either mass or lean families depending on the respective profit functions and the particular realization of θ .

30.6.3.2 Static Profit Maximization with Switching Costs

Consider now the case where switching between capabilities involves costs, e.g. corporate or business reorganization. The critical capability set depends not only on θ and the characteristics of the various profit functions, but also on the currently employed capability set. For instance if the firm is currently using c_m^i , the optimal single-period profit-maximizing capability set is given by the solution to the following problem:

$$\Pi(\theta_t, c_m^i) = \max_{c^j \in C} [\Pi(\theta_t, c^j) - \delta_{mi}^{ij}]$$

Figure 30.3 illustrates this choice in the special case where mass and lean families each contain only a single technique. In a costless world, the lean technique dominates globally the mass technique. However, with switching costs, the relevant comparison is between the profit function of the currently employed mass technique and the profits of the lean technique net of switching costs. When θ falls below the intersection point θ^* , the static decision rule calls for switching families.

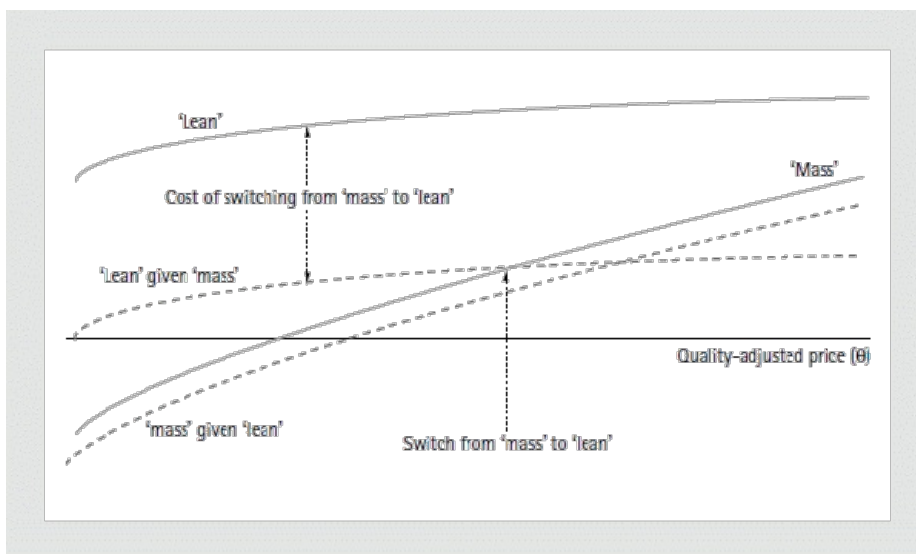


Fig. 30.3 Choice of capability set 'static case'

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30.6.4 Dynamic Value Maximization

The static analysis ignores the impact of the current capability choice on future choices. When future values of Θ evolve stochastically, the current decision influences all future decisions as well. The decision by a mass producer of cars to invest in flexible manufacturing using lean production runs the risk that the American market suddenly decides to buy large recreational vehicles made best by standard mass production techniques. But now they face the problem that they are invested in lean manufacturing, and cannot easily switch back. The tight coupling of organization and technology is essential to understanding why capabilities radically change the understanding of strategy as not only market competition, but as the selection of competence.

The way to incorporate the implications of future switching is to write out explicitly the problem over time. To do this, we no longer work directly with profit functions, but instead with a value function. While technically this problem is often hard to solve, its formulation is both intuitive and insightful. At a point in time (t), this formulation treats the present value of all future benefits given optimal future behavior, as represented by the value function $V(\theta_t, c_m^i)$. The value function is the solution of the well-known Bellman equation:

$$V(\theta_t, c_m^i) = \max_{c_l^j} \left[\left(\Pi(\theta_t, c_l^j) - \delta_{ml}^{ij} \right) + \rho E_t \left[V(\theta_{t+1}, c_l^j) \right] \right]$$

where c_m^i is the current capability pair (consisting of technology i and organization m) and j and 1 are chosen from the set of feasible technologies and organizations at time $t + 1$.

The Bellman equation indicates that in each period the producer contemplates switching into a new capability. If it chooses capability c_l^j , it realizes benefits of $\Pi(\theta_t, c_l^j)$ but pays switching costs of δ_{ml}^{ij} and then arrives at the following period with value function $V(\theta_{t+1}, c_m^i)$. This value depends on the capability chosen, c_l^j , as well as on the value of the state variable next period, θ_{t+1} . Because θ_{t+1} is still unknown at time t , we take expectations; we also discount at rate ρ .

In each period, the producer chooses the capability c_l^j that maximizes the value of the project. This can be interpreted as the *dynamic capability*. More formally, we define the dynamic capability as

$$c^{**} = \operatorname{argmax}_{c_l^j} \left[\left(\Pi(\theta_t, c_l^j) - \delta_{ml}^{ij} \right) + \rho E_t \left[V(\theta_{t+1}, c_l^j) \right] \right]^{27}$$

In the absence of switching costs, the solution to this optimization problem is simple: choose in each period the capability c_l^j that maximizes $\Pi(\theta_t, c_l^j)$ in

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that period. This is the static critical capability discussed earlier. However, the presence of switching costs makes a forward-looking analysis necessary. The probability distribution of future prices affects the current choice of technology and organization.

This definition of a dynamic capability defines our reinterpretation of a 'core competence'. Core competence is the capability set (i.e. combination of organization and technology elements) that permits the firm to choose the optimal response for a given price realization of the strategic factor.

30.7 Hysteresis and Costly Switching

With the above concepts, we can now analyze more fully the hysteresis band first given in Figure 30.2. If a firm is unable to choose the optimal response, these conditions lead to a competency trap that is expressed by a hysteresis band. In Figure 30.4, the profit functions for two capability sets and the resulting hysteresis band are graphed. Since the dynamic analysis takes into account the impact of a current switching decision on all future switching decisions the hysteresis band is wider than in a static analysis.

For the costless switching case, the switch occurs exactly at where the two functions cross. The presence of switching costs has two effects: static and hysteretic. The static costs results in the switch occurring at the value of Θ where profits associated with the new mode justify the costs of adopting new organizational capabilities of lean production. Θ would have to decline past this point of switching in order to justify the switching costs back to mass production.

The band between the switching costs is underestimated by looking only at static costs. Because of the possibility that Θ may revert back to previous values (e.g. due to a sudden drop in oil prices favoring gas-guzzling cars), the firm persists in its current mode and waits to see how prices evolve in the future. At some point, however, Θ takes on values that justify not only the one-time switching costs but also the probability-weighted costs attached to switching back. The range of inaction associated between switching in and out of a capability set is what is defined as the 'dynamic hysteresis band' depicted in Figure 30.4.²⁸

²⁸ For an analysis of hysteresis effects of foreign direct investment under fluctuating exchange rates, see Kogut and Kulatilaka (1994a).

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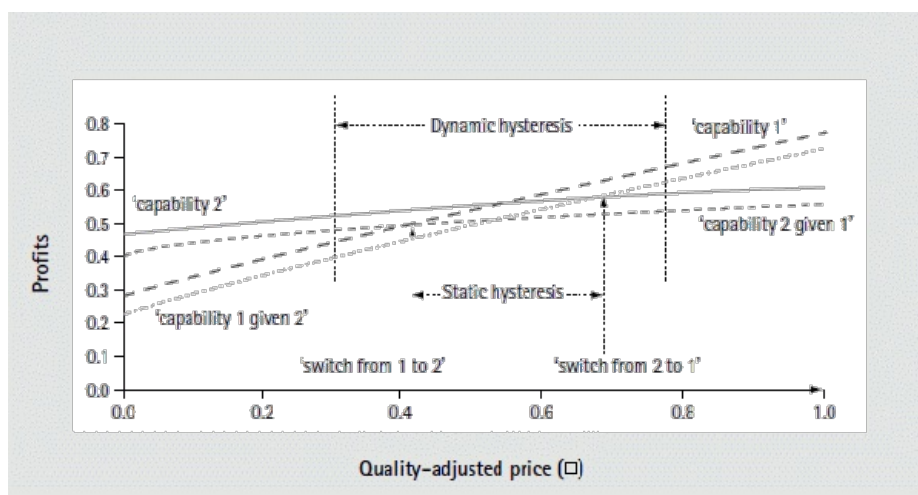


Fig. 30.4 Static and dynamic hysteresis

30.8 Competency Traps and Learning to Learn

Owing to the benefits of learning by doing, the firm's capabilities improve dynamically. In effect, the profit function can be described as shifting outward over time. By staying in its current activities, the firm becomes increasingly more competent. Techniques of mass production are expressed in well-understood routines that couple technology and people through known organizing principles of work.

The danger remains, of course, that Θ will suddenly jump to a range or cross a critical threshold in which the firm's competence is no longer profitable. In a sense, its accumulated learning in the old techniques is a 'competency trap'. By improving in mass production, it is less attractive to change organizational capabilities. Hence a firm might rationally preserve its way of doing things, because it has become so good at doing the (now) wrong thing. Dougherty (1995) has labeled this 'core incompetence'. Exploitation of current knowledge drives

learning by doing; the pitfall is that this learning increases the rigidity of the firm.

To speed its transition to new techniques, the firm may decide proactively to allocate funding to exploration by experimenting with new techniques. This diversion of resources slows down its accumulation of learning with the current technology. At the same time, it increases the value of the option to switch to new

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capabilities by lowering the costs of switching. To characterize this wider menu of choices, Figure 30.5 depicts the decision of a firm that has accumulated a particular breadth of knowledge in the current production techniques, as well as in learning derived from experiments with new methods. (We can think of these experiments as 'joint ventures', such as the Nummi venture between General Motors and Toyota.)

The net effects of learning are ambiguous and depend upon the rate by which new knowledge is gained through learning by doing relative to experimentation. In Figure 30.6, this comparison is graphed by showing the upward change in profit functions over time due to these two learning effects. By construction, we show the gains to experimentation dominating learning by doing.

We can expect that the attractiveness of experimentation increases with time for two reasons. First, the drift of prices leads to the expectation that over time, the old techniques should be scrapped. Secondly, it is reasonable to think of the gains to learning as marked by eventual declining returns. As the 'technological opportunities' of the current capabilities are exhausted, the attractiveness of exploring in the new set of techniques should increase.

We expect, therefore, that investments in learning should follow a cyclical pattern. Indeed, the historical record suggests that the early experiments in mass

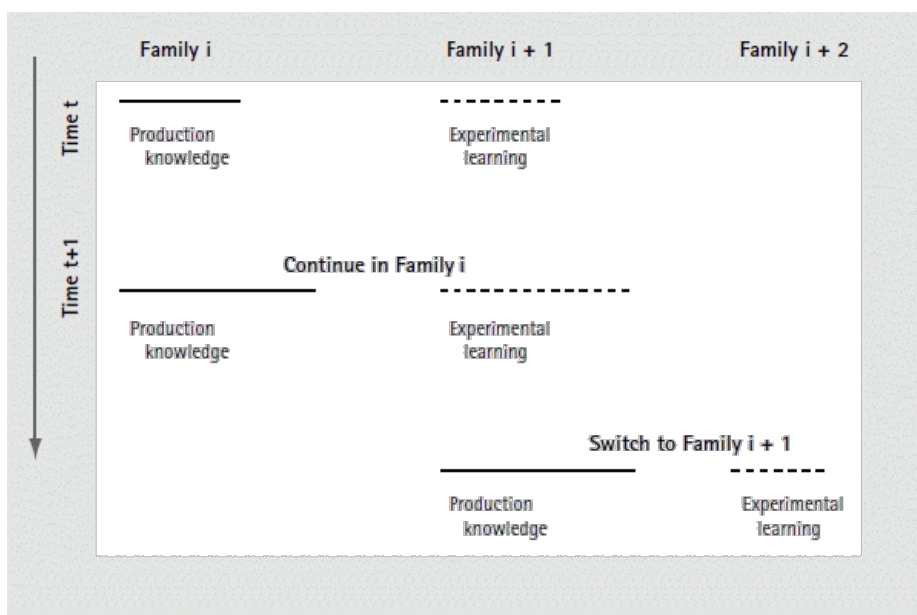


Fig. 30.5 Expanded capability sets

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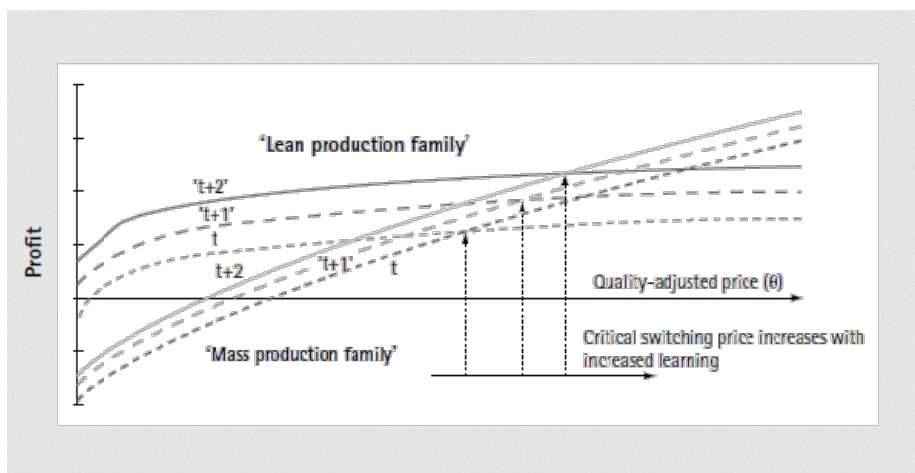


Fig. 30.6 Effects of learning

production gradually dwindled. It would be consistent with this view to expect that the investments in incremental learning so often attributed to Japanese firms should also decline over time, as these opportunities are exhausted. It is not necessary to stipulate that for cultural reasons, Japanese firms are better learners than American firms are. Rather, in a particular cross-section of time, Toyota had *more* to learn about how to expand its capabilities than Ford, which had after 60 years explored most of the terrain of how to organize mass production of standardized products. When there are few gains to exploration, allocation to exploitation of current capabilities dominate investments in incremental learning.

30.9 Combinative Capabilities

Our portrayal of exploitative learning by doing as a process of discovering better matches between organizational and technological elements suggests a dynamic by which knowledge accumulates through recombination. This characterization of learning implies that the capabilities of firms can improve by a modular design. In this case, there is a higher order strategy rested upon the combinative capabilities of a firm to dynamically readjust its knowledge (Kogut and Zander 1992).

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We can make this similarity more transparent by analyzing in more detail the dynamic by which learning accumulates through recombination. This point is implicit in the argument of Baldwin and Clark (1993, 2000) that the benefits of modularity are realized through exercising the embedded options to ratchet up improvement. They note that modularity allows for a better process of 'mix and match' through an improved understanding of subsystems.

An intuitive way to understand their model is to compare two kinds of strategies of throwing dice.²⁹

²⁹ This exposition is due to Per-Goeran Persson's remarkable student paper written for a course on organizational design at the Stockholm School of Economics. His Monte Carlo simulation of the following description is available on request.

Let the score on each die indicate performance. The first strategy is to toss both dice, and then to accept or reject the total. The second is to toss each separately, and apply the same decision rule to each die separately. The first strategy reflects an *integrated* design; the second, a *modular* design. The modular design allows for the possibility that one die scores a 5, while the other only a 2. In this case, the designer may decide only to toss the second die. By this process of mix and match, improves in design evolve through recombination.

These benefits are derived through the strong assumption that performance is the sum of independent draws, i.e. the outcome of tossing a die. There are two important implications from dropping independence of the draws. The first is that the benefits fall, because the experiments are correlated. Behaviorally, correlation in experiments captures realistically the limitations of any firm in designing independent projects; statistical correlation reflects the bias of managers in the projects they are willing to support.

The second implication is that interdependence makes the design problem more difficult. For by fixing one of the dice, the performance contribution of the second module is dependent not simply on its own efficiency, but also on its interaction with the first module. As a consequence, the optimization of a given set of modules does not guarantee that this evolutionary process can ever arrive at a 'best' system. However, the notion of correlation also expresses tightly the idea that irreversibility is derived from the rigidity of competence in managing a particular set of interdependent organizational and technological elements.

This insight of correlated performance underscores why exploratory search is required. Implicit in any modular design is a system constraint. If the overall system performance is inferior to competing systems (e.g. lean production), then evolutionary learning through recombination within a given capability set leads to a competency trap. It is this evolutionary characterization of the learning process that provides the behavioral basis to the concept set-to-set correspondence as defining a capability set.

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30.10 How Good a Heuristic?

Strategic option theory is obviously a complex heuristic to apply. However, much like the BCG growth matrix does not need to measure costs, a core competence heuristic does not (always) need to value the option. Instead, through identifying the value of the competence as derived from market price of correlated assets, strategic option theory disciplines the core competence analysis to understand valuation as sensitive to competitive forces. These forces tend to limit the potential exploitation of a competence through a consideration of the effects on price and competition.

There are, however, several important complications to a strategic option heuristic. These complications provide important insight into the use of strategic options, and they also suggest the sub-optimal transfer of the heuristic to inappropriate settings. For illustration, we consider three problem areas.

30.10.1 Competitive Interactions

The valuation of a strategic option requires an identification of a market price by which to derive the replicate of the underlying asset. In financial markets, this price is easily given by stock or future prices. An important and reasonable assumption is that exercising the option does not influence the value of the replicating portfolio.

This assumption does not hold always for strategic options for two reasons. First, by exercising an option to enter a market, a firm often influences prices through increasing supply. Second, by entering (or exiting) a market, competitors will alter their behavior. As a result, the market price is endogenous to the decision whether to exercise the option.

This problem is partly resolved by recognizing that the value of Θ reflects the assessment on entry.³⁰

³⁰ This endogeneity is similar to the work done on currency rate dynamics when traders form expectations on central bank policy. See the essays in Krugman and Miller (1992).

But this assumption hardly provides insight into the identity of possible entrants and their strategic behavior. A structural approach is explicit regarding the nature of future competition. Kulatilaka and Perotti (1998) follow this approach by evaluating the decision to launch a new technology in the context of different conjectures about market structure. This solution marries the industry structure analysis to core competence, but through the stipulation that the analysis is forward-looking rather than focused on current market structure.

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30.10.2 Why Not Switch Now?

The hysteresis band, we have suggested above, is influenced by the extent to which a firm has locked into a tightly-coupled system. Another explanation seeks to explore a question—often under-theorized in strategy research—concerning who gains from a decision to switch. Baldwin (1982) showed, for example, that owners would maintain inefficient plants in a bargaining setting to threaten workers from seeking higher wages. Kulatilaka and Marks (1988) analyzed why owners might choose to persist in an older, non-flexible technology as a way to signal a credible commitment to workers over wages. Both of the above papers suggest that bargaining strategies increase the value of maintaining older technologies and hence widen the hysteresis band.

A related issue is the difference between innovators and imitators. In the case of innovation, the profit windfall means that the bargaining problem is dividing a larger pie; Ford could win acceptance by increasing wages to \$5 a day (see Raff 1988). For imitators, adoption is in the midst of declining revenues; there is less to redistribute and hence bargaining is more of a zero-sum game for some parties. The situation facing imitators is more of an end game, where bankruptcy is a credible outcome. In this context, switching to new practices is more an issue of survival than improving fitness relative to rivals. These concerns form the central debate in the strategic thinking in Europe and elsewhere on whether firms should insist on flexible labor markets as a policy to respond to international competition.

30.10.3 Stock Options as Compensation

This notion of flexibility in employment is often also extended to flexibility in compensation. There is a frequent belief that a large firm

could be more flexible to seize opportunities if employees' compensation was contingent on outcomes. There are, however, two major problems to such an argument. Putting in optionlike compensation clauses results in high variance of compensation for managers in comparable positions. As almost all studies on compensation show, pay and performance are not closely linked because it is demoralizing; employees do not believe that differentials reflect ability and they find the social comparison to be unfair. The implications for promoting what should be the source of gain to a firm—namely, sustained coordinated and cooperative behavior—are invidious.

Second, compensation by options does not encourage flexibility. As Lambert, Larcker, and Verrecchia (1991) found, managers treat options that are in the money as wealth, and they consequently do not want to take decisions that erode their value. Unless a compensation scheme can be designed so that every decision is linked to a contingent payment, compensation by options is a disincentive for flexibility.

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Excessive incorporation of options in compensation is a heuristic, while appealing in its financial language in an age of institutional investors, whose application is detrimental.

30.11 Conclusions

Real option analysis provides the theoretical foundations to heuristics derived core competence. It offers the improvement by conditioning an understanding of competence in relation to a market test (e.g. Barney's notion of a strategic factor market) and by putting the organizational dilemma in central stage as the leading explanation for the irreversibility of investments in capabilities. In a narrow sense, it denigrates discounted cash flow analysis as the principal tool of understanding the value of a firm. But more profoundly, the recognition that the coupling of people and technology is a source of considerable option value challenges simplistic notions of firms as 'pure asset plays'.

It is reasonable to also ask whether the formal theory itself is liable to be implemented through a more usable heuristic framing. Reducing the mathematical formulation to linear approximations, e.g. the proposal by Bowman and Moskowitz (2002), makes this framing more plausible to the manager. However, the larger challenge remains whether the rigor of using an assessment of market valuation of options leads to heuristic frames that improve the quality of strategizing.

Through the link to the value of the embedded knowledge in organizational assets, the treatment of capabilities as strategic options deflects, ironically, a purely financial evaluation of the firm. Because organizations consist of coupled systems, the value of the firm is not reflected in the present value of its constituent parts, but in the combinative potential (i.e. the option value) of deploying these capabilities for innovation in existing markets or for addressing new markets.

The implications of modularity as maintaining the option to recombine capabilities has an intuitive appeal to current trends in flat and flexible organizations.³¹

³¹ Baldwin and Clark (1993) provide an interesting discussion and model of the value of modularity as options under the assumption of independence among the modules or development projects. An issue that cannot be pursued here is the observation that the value of the firm rests in managing the dependence among these modules; otherwise, a policy of outsourcing, e.g. a Toyota production system, can equally manage independent modules for eventual downstream assembly.


It suggests that firms are dynamic systems consisting of the complex coupling of technology and people through organizational design. The ironic conclusion to the sustained application of financial modeling to firms is that in the end, the fundamental basis of the value of the firm is its organizational capability to exploit current and explore future opportunities.

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References

Allison, Graham T. (1971). *Essence of Decision: Explaining the Cuban Missile Crisis*. Boston: Little, Brown.

Amram, Martha, and Kulatilaka, Nalin (1999). *Real Options: Managing Strategic Investments in an Uncertain World*. Boston: Harvard Business School Press.

Baldwin, C. Y. (1982). 'Optimal Sequential Investment when Capital is Not Readily Reversible'. *Journal of Finance*, 37: 763–82. 

——— and Clark, K. (1992). 'Capabilities and Capital Investment: New Perspectives on Capital Budgeting'. *Journal of Applied Corporate Finance*, 5: 67–82. 

- (1993). 'Modularity and Real Options'. Boston: Harvard Business School, Working Paper, #93-026.
- (1994). 'Capital Budgeting Systems and Capabilities Investments in U.S. Companies after World War II'. *Business History Review*, 68/1: 73-109. [Link](#)
- (2000). *Design Rules: The Power of Modularity*. Cambridge, Mass.: MIT Press.
- Barley, Stephen (1990). 'The Alignment of Technology and Structure through Roles and Networks'. *Administrative Science Quarterly*, 35: 61-103. [Link](#)
- Barney, Jay (1986). 'Strategic Factor Markets: Expectations, Luck, and Business Strategy'. *Management Science*, 32/10: 1231-41. [Link](#)
- Bartlett, Frederic (1958). *Thinking*. New York: Basic Books.
- Bowman, Edward (1963). 'Consistency and Optimality in Managerial Decision-Making'. *Management Science*, 9: 310-21. [Link](#)
- (1995). 'Strategy History: Through Different Mirrors'. *Advances in Strategic Management*, 11: 25-45.
- and Moskowitz, Gary (2002). 'The Use of Options Analysis in Strategic Decision Making'. *Organization Science*, forthcoming.
- Chandler, Alfred (1962). *Strategy and Structure*. Cambridge, Mass.: MIT Press.
- Cohen, Michael, and Bacdayan, Paul (1994). 'Organizational Routines are Stored as Procedural Memory: Evidence from Laboratory Study'. *Organization Science*, 5: 554-68. [Link](#)
- Dixit, Avinash, and Pindyck, Robert (1994). *Investment Under Uncertainty*. Princeton: Princeton University Press.
- Dosi, Giovanni, and Kogut, Bruce (1993). 'National Specificities and the Context of Change: The Co-evolution of Organization and Technology', in B. Kogut (ed.), *Country Competitiveness: Technology and the Organizing of Work*. New York: Oxford University Press, 249-62.
- Dougherty, Deborah (1995). 'Managing Your Core Incompetencies for Innovation'. *Entrepreneurship, Theory and Practice*, 19: 113-35.
- Hamel, Gary, and Prahalad, C. K. (1994). *Competing for the Future: Breakthrough Strategies*. Boston: Harvard Business School Press.
- Hedlund, Gunnar, and Rolander, Dag (1990). 'Action in Heterarchies: New Approaches to Managing the MNC', in C. A. Bartlett, Y. Doz, and G. Hedlund (eds.), *Managing the Global Firm*. New York: Routledge.
- Henderson, Rebecca (1993). 'Underinvestment and Incompetence as Responses to Radical Innovation: Evidence from the Photolithographic Alignment Equipment Industry'. *Rand Journal*, 24: 248-70. [Link](#)
-
- end p.936
- Hull, John, C. (1997). *Options, Futures, and Other Derivatives* (3rd edn). Upper Saddle River, NJ: Prentice-Hall.
- Ittner, Chris (1996). 'Exploratory Evidence on the Behavior of Quality Costs'. *Operations Research*, 44/1: 114-30. [Link](#)
- and Kogut, Bruce (1995). 'How Control Systems Can Support Organizational Flexibility', in Edward Bowman and Bruce Kogut (eds.), *Redesigning the Firm*. New York: Oxford University Press, pp 155-82.
- Kahneman, Daniel, and Lovallo, Dan (1993). 'Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking'. *Management Science*, 39: 17-31. [Link](#)
- Kim, Dong-Jae, and Kogut, Bruce (1996). 'Technological Platforms and Diversification'. *Organization Science*, 7: 283-301. [Link](#)
- Kogut, Bruce, and Kulatilaka, Nalin (1992). 'What is a Critical Capability?', Reginald H. Jones Working Paper, Wharton School.
- (1994a). 'Options Thinking and Platform Investments: Investing in Opportunity'. *California Management Review*, 36/2: 52-71.
- (1994b). 'Operating Flexibility, Global Manufacturing, and the Option Value of Multinationality'. *Management Science*, 40: 123-39. [Link](#)
- (2002). 'Capabilities as Real Options'. *Organization Science*, forthcoming.

— and Zander, Udo (1992). 'Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology'. *Organization Science*, 3: 383–97. [Link](#)

Krugman, Paul, and Miller, M. (eds.), (1992). *Exchange Rate Targets and Currency Bands*. Cambridge: Cambridge University Press.

Kulatilaka, Nalin, and Marcus, Alan (1992). 'Project Valuation under Uncertainty: When does DCF Fail?', *Journal of Applied Corporate Finance*, 5/1: 92–100. [Link](#)

— and Marks, Stephen (1988). 'The Strategic Value of Flexibility: Reducing the Ability to Compromise'. *American Economic Review*, 78: 574–80.

— and Perotti, Enrico (1998). 'Strategic Growth Options'. *Management Science*, 44/8: 1021–31. [Link](#)

Kunreuther, Howard (1969). 'Extensions of Bowman's Theory on Managerial Decision-Making'. *Management Science*, 16: 415–39.

Lambert, Richard, Larcker, David, and Verrecchia, Robert (1991). 'Portfolio Considerations in Valuing Executive Compensation'. *Journal of Accounting Research*, 29: 129–49. [Link](#)

Leach, J. Chris (1994). 'Good and Bad Variance in Valuing Production and Technological Expenditure Programs or Are Real Options Really Options?' Mimeo, Wharton School.

Lincoln, James (1993). 'Comparison of Japanese and US Organizational Structures', in B. Kogut (ed.), *Country Competitiveness: Technology and the Organizing of Work*. New York: Oxford University Press, 54–74.

McDonald, Robert, and Siegel, Daniel (1984). 'Option Pricing When the Underlying Asset Earns a Below-Equilibrium Rate of Return: A Note'. *Journal of Finance*, Mar.: 261–5. [Link](#)

MacDuffie, John Paul (1996). 'Human Resource Bundles and Manufacturing Performance: Flexible Production Systems in the World Auto Industry'. *Industrial and Labor Relations Review*, 48/2: 197–221. [Link](#)

Mansfield, Edward (1988). 'Speed and Cost of Industrial Innovation in Japan and United States'. *Management Science*, 34: 1157–68. [Link](#)

end p.937

March, James (1991). 'Exploration and Exploitation in Organizational Learning'. *Organization Science*, 2: 71–87. [Link](#)

Merton, Robert C. (1976). 'Option Pricing When Underlying Stock Returns are Discontinuous'. *Journal of Financial Economics*, 3./Jan./Mar.: 125–44. [Link](#)

Milgrom, Paul, and Roberts, John (1990). 'The Economics of Modern Manufacturing: Technology, Strategy, and Organization'. *American Economic Review*, 80: 511–28.

Minsky, Marvin (1985). *The Society of Mind*. New York: Simon and Schuster.

Mintzberg, Henry (1990). 'Strategy Formulation: Schools of Thought', in J. Frederickson (ed.), *Perspectives on Strategic Management*. New York: Harper Business, 105–236.

Nelson, Richard R., and Winter, Sidney G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press.

Pindyck, Robert S. (1991). 'Irreversibility, Uncertainty, and Investment'. *Journal of Economic Literature*, 29/3: 1110–52.

Piore, Michael, and Sabel, Charles (1984). *The Second Industrial Divide*. New York: Basic Books.

Porter, Michael (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.

Raff, Daniel (1988). 'Wage Determination Theory and the Five-dollar Day at Ford'. *Journal of Economic History*, 48: 387–99.

— and Bresnahan, T. F. (forthcoming). 'Plant Shutdown Behavior during the Great Depression and the Structure of the American Motor Vehicle Industry'. *Journal of Economic History*, forthcoming.

Scherer, F. M. (1967). 'Research and Development Resource Allocation under Rivalry'. *Quarterly Journal of Economics*, 81: 359–94. [Link](#)

Scott, W. Richard (1995). *Institutions and Organizations*. Thousand Oaks, Calif: Sage.

Selznick, Philip (1957). *Leadership in Administration: A Sociological Interpretation*. Evanston, Ill: Row, Peterson.

Servan-Schreiber, Jean-Jacques (1969). *The American Challenge*. New York: Atheneum.

Simon, Herbert (1992). *The Sciences of the Artificial*. Cambridge, Mass.: MIT Press, seventh printing.

Szulanski, Gabriel (1995). 'Unpacking Stickiness: An Empirical Investigation of the Barriers to Transfer Best Practice Inside the Firm'. *Academy of Management Best Paper Proceedings*, 437–41.

Teece, David, Pisano, Gary, and Shuen, Amy (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18: 509–34. [Link](#)

Tushman, Michael, and Anderson, Philip (1986). 'Technological Discontinuities and Organizational Environments'. *Administrative Science Quarterly*, 31: 439–65. [Link](#)

Useem, Michael (1996). *Investor Capitalism: How Money Managers are Changing the Face of Corporate America*. New York: Basic Books.

Winter, Sidney (1987). 'Knowledge and Competence as Strategic Assets', in D. Teece (ed.), *The Competitive Challenge—Strategies for Industrial Innovation and Renewal*. Cambridge, Mass.: Ballinger, 159–84.

Zander, Udo, and Kogut, Bruce (1995). 'Knowledge and the Speed of the Transfer and Imitation of Organizational Capabilities: An Empirical Test'. *Organization Science*, 6/1: 76–92. [Link](#)

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31 Strategic Flexibility Creating Dynamic Competitive Advantages

Henk W. Volberda

31.1 Crisis in Strategy: Escaping the Red Queen Race

As we entered the twenty-first century, strategy as a field of study has fallen on hard times. Changing competitive environments are forcing companies in almost every sector to re-examine their strategy and organizational form. There seems to be a growing consensus among managers that the path to success leads away from traditional strategy prescriptions advocating top-down control, formal planning, and rational industry-analysis. Managers and practitioners are heralding flexibility as the new hallmark of organizational excellence. Moreover, the business literature on strategic change is replete with prescriptions and directives with regard to successful strategic transformations, often summarized in terms of catchy statements, such as *downsizing* the corporation; *re-engineering* the business process; *outsourcing* of non-core activities; *benchmarking* the core activities; creating *multi-functional project teams*; *empowering* employees; increasing the *workforce flexibility*

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(multi-skilled workers); expanding the externalized workforce(temporai workers); replacing highly specialized machinery for *flexible manufacturing systems*; and developing *multi-purpose* information systems.

Despite all the business literature offering these signposts for new flexible modes of managing and organizing, the discipline of strategic management seems to play a minor role in this debate. To what degrees are these trends commented on so widely yet empirically little studied, woven together into a coherent strategic approach? Is there just one type of flexible firm? Does every firm face the same competitive challenges? How should we design a flexible corporation?

Up till now, managers in today's competitive environment were engaged in strategic experiments without the guidance of an appropriate theory or framework. Many one-time industry leaders that failed to keep up with the accelerating pace of industry change have started large-scale strategic transformations and increasingly experimented with new flexible forms. Yet, these 'best managed' firms of the 1970s and 1980s, such as IBM (ongoing reorganizations resulting in a 13 per cent reduced headcount by 1993), Xerox (numerous reorganizations in the 1980s), and Philips (launching of the Centurion project in 1990 resulting in the elimination of 67,000 jobs over a three-year period) have been partly successful in transforming their traditional organizations. They all restructured themselves by using a slash-and-burn approach, cutting staff to the bone without thinking about how the work gets done and rationalizing their portfolios without supporting promising new lines of business. The enforced corporate anorexia made these companies thinner and more efficient, but did not really make them more flexible (Hamel and Prahalad 1994: 11). One sometimes has the feeling that in these large-scale transformations it is forbidden to mention the word 'strategy' at all. In this respect, former Philips' CEO Jan Timmer claimed that not strategy but the client was the most important for initiating the Centurion change project. Similarly, the German CEO of Daimler-Benz, Jürgen Schrempp, aggrieved after many difficult questions about the direction of the company commented 'Strategie kann man nicht essen'. Also John Kay (see Chapter 2) rightly reasoned in the *Financial Times* (1998) that 'Strategy' is the most misused word and in daily practice often associated with expensive, inefficient, and prestigious. Considering the killing competition nowadays, companies do not like the S-word anymore. In this connection, Kay poses in a bantering way that the sentence 'I am a strategist' should be translated as 'I have a large office, a high salary, and the ear of the CEO', 'I am a strategy consultant' means 'our fees are very high', and 'this is a strategic investment' implies 'we are going to lose a lot of money on this project'.

In a reply to this devaluation of the strategy concept, management futurologists have tried to show us a rough sketch of successful companies in the new competitive landscape, including the virtual corporation (Davidow and Malone 1992); the hollow corporation; the dynamic network form (Miles and Snow 1986); the hypertext organization (Nonaka and Takeuchi 1995); the platform organization (Ciborra 1996); and the shamrock organization (Handy 1995). Most of these studies, however,

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have tried only to justify and rationalize successful adaptive organizational forms (e.g. Sun Microsystems' virtual organization, Dell Computer's dynamic network, Sharp's hypertext form, Olivetti's platform organization, or F international's electronic shamrock). However, the transience of successes of manufacturing companies such as DAF, Fokker, and more recently, IT companies such as Baan and World On-Line have proven that there is no permanent successful strategy.

Do we have to conclude then that strategy is passé? Or even worse, that the key question in strategic management, namely: 'Why does one company outperform the other?' (Porter 1991) cannot be answered? In other words, firms are caught in a competitive race of more of the same in which in the end only losers remain. Instead of long, stable periods in which firms can achieve sustainable competitive

advantages, competition is increasingly characterized by short periods of advantage punctuated by frequent disruptions (D'Aveni 1994). Competitive advantages are continuously eroded by actions of other players which lead again to higher levels of competition and the need to react faster. In the end, these dynamic interactions between firm learning and adaptation, on the one hand, and higher levels of competition and selection, on the other hand, cancel each other out. This is often dubbed an 'arms race' or 'the Red Queen effect' (Kauffman 1995) after the comment to Alice, 'It takes all the running you can do to keep in the same place' (Carroll 1946). Companies adapt faster and faster, but as a consequence of the resulting increase in competition they do not make any progress (see Box 31.1). Similar dynamic strategy concepts are *hypercompetition* (D'Aveni 1994) and *coevolution* (Lewin and Volberda 1999).

How can firms escape the Red Queen effect in which there is no place for sources of competitive advantage? What has strategy to offer in these highly competitive

Box 31.1 The Red Queen effect

'Now! Now!' cried the Queen. 'Faster! Faster!' And they went so fast that at last they seemed to skim through the air, hardly touching the ground with their feet till, suddenly, just as Alice was getting quite exhausted, they stopped, and she found herself sitting on the ground, breathless and giddy.

The Queen propped her up against a tree, and said kindly, 'You may rest a little now.'

Alice looked round her in great surprise. 'Why, I do believe we've been under this tree the whole time! Everything's just as it was!'

'Of course it is,' said the Queen. 'What would you have it?'

'Well, in *our* country,' said Alice, still panting a little, 'you'd generally get to somewhere else—if you ran very fast for a long time, as we've been doing.'

'A slow sort of country!' said the Queen. 'Now, *here*, you see, it takes all the running *you* can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!'

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environments? Although we have to re-evaluate the assumptions of traditional static strategy models, there is great unanimity among strategy scholars that the need for strategic thinking in these hypercompetitive environments is even greater than ever. According to Porter (1996), in his article 'What is strategy', those beliefs that competitive advantages are at best temporary are 'dangerous half-truths, and they are leading more and more companies down the path of mutually destructive competition'. In his argument, downsizing, restructuring, re-engineering, and benchmarking often only improve operational effectiveness, but do not provide strategic advantage. Likewise, Hamel and Prahalad (1994) contended that instead of 'more of the same' or 'try harder' approaches ('How to be better'), firms should fundamentally reconsider their core activities ('How to be different'). Not a static strategy, but strategic renewal and industry transformation are much more important. Elsewhere, Hamel (1996) preaches strategy as revolution; creating new industries and breaking the existing rules of the industry. This implies that not a fixed strategy but strategic flexibility is the source of success. Strategic flexibility may help firms to escape the Red Queen effect in which all competitive advantages are cancelled out by increasing competition.

In this chapter, we first explore the concept of flexibility in theories of strategic management (Section 31.2). Subsequently, we provide a more dynamic approach in strategic management in which strategic flexibility is considered as a constructive friction between change and preservation, in particular between routines and dynamic capabilities, learning and unlearning, administration and entrepreneurship (Section 31.3). On the basis of this paradox of flexibility, we develop a strategic framework that distinguishes the building blocks needed to analyse and discover viable strategic positions in various competitive environments (Section 31.4). In this framework, flexibility is a managerial as well as an organization design task. The managerial task involves the creation of capabilities for situations of unexpected disturbance (Section 31.4.1). On the basis of the variety of these capabilities and speed of response, four types of flexibility are distinguished: steady-state, operational, structural, and strategic flexibility. The organization design task concerns improving the responsiveness of the organization, which depends on the creation of the right conditions to foster flexibility (Section 31.4.2). We consider various technological, structural, and cultural barriers to flexibility. The challenge for management is thus to develop dynamic capabilities that enhance flexibility and to have an adequate organizational design to utilize those capabilities. In other words, a flexible organization must possess some capabilities which enhance its flexibility to avoid becoming rigid, but it must also be anchored in some way in order to avoid chaos.

On the basis of this strategic framework of flexibility, we distinguish alternative flexible forms that connect different types of competitive environments with effective types of flexibility and organization designs: the rigid, planned, flexible, and chaotic form (Section 31.4.3). Moreover, various trajectories of organizational failure and success in meeting various levels of competition are derived from this

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typology (Section 31.5). Application of this framework within large companies shows us dual trajectories of transformation for coping with hypercompetition: revitalization of core activities together with radical transformation for developing new activities (Section 31.6). On the basis of these ongoing tensions between exploitation and exploration in multi-unit firms we distinguish four more permanent corporate forms for creating strategic flexibility: the network, the dual, the oscillating, and the balanced corporation (Section 31.7). They illustrate that companies in highly competitive environments have various choices for winning the Red Queen race (Section 31.8).

31.2 From Strategic Management to Strategic Flexibility

Over the past thirty years, strategic management has become established as a legitimate field of research and managerial practice. In the evolution of strategy research, a diversity of partly competitive and partly supplementary paradigms or models have emerged (cf. Volberda and Elfring 2001). For a long time, however, these models ignored the concept of flexibility. They focused instead on how firms should develop sound strategies by means of systematic forecasting, planning, and control. While it is true that organizations must pursue strategies for purposes of consistency, they must also discard their established competencies in response to a changed environment. When environmental changes become increasingly undefined, fast-moving, and numerous, it is risky to rely upon conventional strategic management approaches. Therefore, more recent descriptive strategy perspectives consider flexibility as a strategic asset in situations in which anticipation is impossible and strategic surprise likely (cf. Aaker and Mascarenhas 1984; Quinn 1980; Sanchez 1995). In this section, we will consider major developments within the strategy field and their contribution to flexibility.

31.2.1 The Linear Model: Rigidities of Strategic Planning

Historically, an organization's strategy has been thought of as an integrated plan. The most frequently cited definitions of organization strategy are provided by Andrews (1971) and Chandler (1962), and emphasize concepts such as goals, resource allocation, and especially plans. These concepts form the essential

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elements of the *linear model* of strategic management (Chaffee 1985), corresponding to what others have called the 'planning' (Mintzberg 1973), 'rational' (Peters and Waterman 1982), 'rational comprehensive' or 'synoptic' (Fredrickson 1983) approach.

This model still pervades the literature on the process of strategic management. In this sequential process, 'strategy formulation' precedes 'strategy implementation'. Emphasis is on planning 'What to do', rather than on planning 'What the organization might be capable of doing in the future'. As a consequence, the content of strategy (i.e. 'in which direction do we change the firm's position in the environment?') dominates the process in the linear model, while the process itself is often underestimated or oversimplified. The linear model assumes there are no problems with implementing strategy after it has been formulated.

Regarding strategy formulation, the role of the management is that of a 'rational actor' issuing directives from the seat of power. The model assumes that an exhaustive analysis can be undertaken before action is taken, and requires that management holds a considerable amount of power and has access to complete information. Regarding implementation, the role of the management is that of an architect, designing administrative systems to orchestrate implementation and to push the organization towards goal achievement. By manipulating the systems and structures of the organization in support of a particular strategy, however, the management may be trading off important strategic flexibility. 'Should an unforeseen change in the environment require a redirection of the strategy, it may be very difficult to change the firm's course, since all the "levers" controlling the firm have been set firmly in support of a now-obsolete game plan' (Bourgeois and Brodwin 1984).

Thus, where environmental uncertainty is high, it may prove effective in the long run to refrain from the linear model described above. Whereas in a stable environment we can permit deliberate formulation and execution of strategy, many situations now involve strategic surprises that do not give sufficient warning to permit deliberate planning (Burton 1984). A stable environment increases the likelihood that the critical variables can be identified, and it allows plans to be developed regarding the relationship between those variables and the organization. On the other hand, a highly unstable environment makes it difficult to achieve the level of certainty needed by rational models to be effective.

According to the linear model, however, increased environmental uncertainty can be addressed by a more comprehensive decision process. Instead of relatively fixed strategic programmes, which are in essence extrapolations of former trends, management has to develop action strategies and to concentrate on certain essential strategic issues, both of which have to be regularly revised (Ansoff 1980: 132–48). In addition, in situations of more extreme uncertainty, management has to develop contingency plans in which decisions are assessed and prepared that deviate from decisions which are part of the long-term plan (Linneman and Chandran

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1981). Contingency plans are complementary plans; that is, they are based on developments that are relatively unlikely, but are very important should they occur (see for a more detailed treatment Chapter 11 on scenario planning). These 'What if' approaches are widely understood and growing in technical sophistication as a result of computer modelling (Burton and Naylor 1980). Indeed, these various planning tools are able to cope with more uncertainty. Yet, they are not sufficient to assure the viability of the organization. There is a limit to an organization's planning repertoire, due to organizational inertia. A firm can change its plan yearly, monthly, or daily, but the one-sided focus on planning is insufficient and leads in many cases to organizations becoming ever more rigid. For instance, an increase in the number of planning forecasts of the Central Planning Department of Philips Semiconductors in Eindhoven resulted only in larger inventories and higher prices for the plants. It has been suggested that even if an organization has significant resources, attempting to be comprehensive may result in achieving tomorrow's solution to yesterday's problem (Braybrooke and Lindblom 1970: 121).

Attitudes towards planning and analysis should therefore be biased towards new ways of thinking in order to compensate for the one-sided tendency of corporate planners to produce highly formalized and ritual-like planning procedures. In this context, Pennings (1985: 20) and Starbuck (1983) warned against the institutionalization and routinization of formal planning systems, which might lead a life of their own, uncoupled from relevant strategic events. In such circumstances, strategy becomes the job of an increasingly specialized planning department that is divorced from the everyday business. Numerous examples can be found in the public sector where planning systems are imposed upon the organization by legislative moves or in large private corporations where planning systems are imposed by executive order. For instance, in the 1970s and early 1980s, strategic planning was the gospel at GE. The company's elaborate controls ranged from detailed monthly budget approvals to an annual strategic planning review that required six to eight months of preparatory research and analysis (Tichy and Sherman 1994). Jack Welch's success started when he dismantled this rigid strategic planning system and slimmed down the corporate planning group. Instead of directing a business according to a detailed GE-style strategic plan, Welch believes in setting only a few, clear overarching goals.

Considering these arguments, we might conclude that in the linear approach, there is no room for flexibility. At most, flexibility represents a management capacity for quickly developing plans to anticipate new developments. However, we argued that in situations of radical change, attempts to adopt planning would only paralyse the organization. The annual planning rituals within corporations restrict their creative potential; options are fixed and new options are not noticed. That is, planning is the least flexible of the strategy-making modes. Its obsession with rationality leads to a further refinement of the planning mechanism that is the cause of the problems.

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31.2.2 The Adaptive Model: Opportunistic Behaviour and Flexible Resources and Capabilities

Surprisingly enough, it was Ansoff (1978), one of the founders of the linear model, who suggested that the level of environmental change was increasing and giving rise to strategic surprises, making strategic anticipation and strategic planning of the sort that proceeds in an outside-in, market-to-product development manner no longer useful. According to Ansoff, the planning concept of strategy had to be re-examined because uncertainty limits the ability of the organization to pre-plan or make decisions about activities in advance of their execution. Because of this effect, organizations must develop flexibility. The more uncertain the situation, the more an organization will need flexibility as a complement to planning (cf. Thompson 1967: 148). Therefore, Ansoff (1978) asserted that in these situations the use of traditional action strategies ('In which direction do we change the firm's position in the environment?') would be increasingly supplemented and sometimes replaced by preparedness or flexible configuration strategies ('How do we configure the resources of the firm for effective responses to strategic surprises?'). Rather than adhering single-mindedly to a predetermined set of goals and course of action, it is better to be capable of adapting to a variety of possible events, exigencies, or unpredictable states of nature (Burton 1984).

In line with this emphasis, Mintzberg and Waters (1985) argued that the focus should not be placed on deliberate planning and control, but on developing an organizational capacity for strategic thinking and learning, which means being open and responsive. From this capacity, strategies emerge which are not guided by explicit a priori intentions. Patterns or consistencies are realized despite, or in the absence of, intentions. Nevertheless, the emergence of these ex post strategies does not mean that management is out of control, only that it is open, flexible, and responsive. 'Such behaviour is especially important when an environment is too unstable or complex to comprehend, or too imposing to defy. Openness to such emergent strategy enables management to act before everything is fully understood—to respond to an evolving reality rather than having to focus on a stable fantasy' (Mintzberg and Waters 1985: 271). As an example, Mintzberg and Waters proposed that a distinctive competence cannot always be assessed on paper a priori; often, it has to be discovered empirically by taking actions that test where strengths and weaknesses really lie.

The different modes of strategy discussed above are depicted in Figure 31.1. The relationship between environmental turbulence and comprehensiveness of planning activities is presented as a reversed U-form. In a relatively stable environment, strategic management can be limited to the development of strategic programmes, which are based on the extrapolation of trends. There is no need to change the

organization. When the environment becomes more unstable, strategic programmes are insufficient and have to be supplemented with strategic issue management or even

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contingency planning. Besides strategic programmes, management has to focus on certain relevant issues and initiate organizational activities regarding these issues. If these programmes and issues have to be revised too often, contingency planning is more suitable. For every possible change, a plan has to be developed and the organization must be well organized in order to anticipate these various plans. However, in a highly unstable environment, planning activities create more problems than they solve. The associated uncertainty is not amenable to formal objective assessment. Therefore, organizational activities are substituted for planning activities in order to create a flexible configuration of resources. These preparedness strategies result in a more spontaneous organization. Figure 31.1 shows that in situations of high environmental uncertainty, deliberate planning becomes less important while organizing for flexibility becomes more important.

Preparedness strategies are part of the *adaptive model* of strategic management, a term also used by Mintzberg (1973) and Chaffee (1985). In this model, strategic management is depicted as a messy, disorderly, and disjointed process around which competing factors contend. Lindblom (1959), Mintzberg (1978), and Quinn (1980) contributed substantially to this approach by doing more descriptive strategy research instead of prescriptive research. Their contributions are founded largely on the notion of cognitive limits of rationality as described in the early work of Herbert Simon and James March (March and Simon 1958).

On the basis of these insights, it was Lindblom (1959) who first claimed that policy-making in government is an incremental process of 'muddling through' that is distinct from the linear rational perspective, since different sub-units display a disorderly proliferation of preference orderings and divergent views of cause-effects relations. Lindblom's arguments have generally been supported by other management scientists. For example, in his ground-breaking *Harvard Business Review* article 'Good Managers Don't Make Policy Decisions' Wrapp (1967) argued that disjointed incrementalism is also found in business firms. Years later, Quinn (1980) concluded that this 'non-rational' incrementalism is logical because of the inherently iterative nature of strategic decisions and the resultant need to make and remake them. In his in-depth study of nine large corporations facing major changes, Quinn concluded that the successful firms were those in which the strategist was able to adjust incrementally to changes in customer needs or in which the internal structures and processes were appropriate.

The adaptive model differs from this linear model in several ways.

- **Facilitating bottom-up initiatives.** The linear model still works on the assumption that the CEO, management, or planning group can design an explicit 'grand' strategy for the entire enterprise based on a highly top-down, deliberate, analytical process. Honda's successful entry in the American motorcycle market demonstrates that sound strategies are not always explicitly formulated. The opportunities to experiment within Honda, the trial and error behaviour in design, and the

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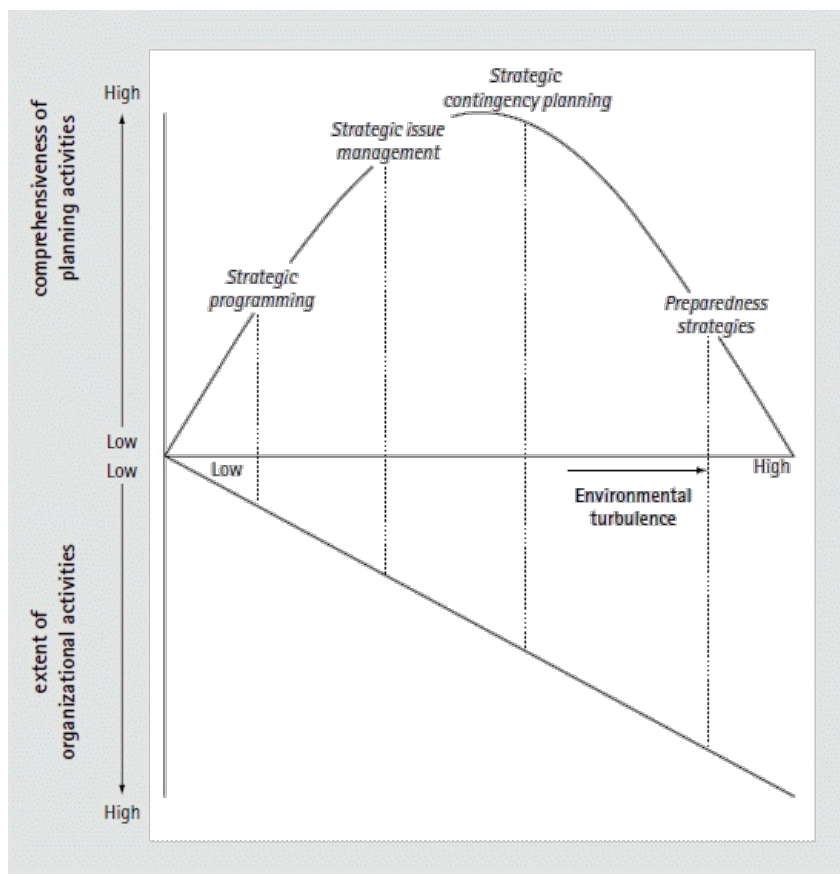


Fig. 31.1 Different modes of strategy depicted as a constellation of the degree of environmental turbulence, the comprehensiveness of planning activities, and the extent of organizational activities

firm's lack of a hierarchical structure suggest that perhaps the most effective process of strategic management is through originating, developing, and promoting strategic initiatives from the bottom up (Pascale 1984). Other researchers (Bower 1970; Burgelman 1983; Quinn 1985) further developed this bottom-up

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perspective. They demonstrated that in large diversified firms strategy emerges from the bottom-up initiatives of individuals or small groups, while the role of top management is often restricted to retroactive legitimizer. More recently, on the basis of ABB's recent success Bartlett and Ghoshal (1993) have argued for a more proactive perspective; the role of top management in this predominant bottom-up process is to challenge the status quo, while the middle line is concerned with horizontal linking and leveraging of capabilities across units. These divergent findings illustrate that strategy is less centralized in top management, more multifaceted, and generally less integrated than in the linear model. The adaptive model therefore asserts that strategic management is an organization-wide activity in which each management level has to contribute in its own way (Van Cauwenberg and Cool 1982).

- **Keeping options open.** A second difference follows from the relative unimportance of advance planning in the adaptive model (Chapter 31 by Kogut and Kulatilaka deals more thoroughly with strategic options). Top management initially formulates guidelines in more general terms. These are designed to steer the organization in the increasingly turbulent and therefore uncertain environment and to maintain a flexible position vis-à-vis the large number of unknown future events. Specific proposals formulated in technical and economic terms typically emanate from front-line management, while middle management faces the difficult task of integrating both activities. Since the formulation and the implementation of specific strategic initiatives do not originate at the same hierarchical level, and since different hierarchical levels are found to be relatively independent, it is inevitable that strategy can develop only in an incremental way. Strategic management is necessarily a fragmented process, whereby initiatives arise from different subsystems and top management defines strategies as broadly as possible and leaves options open as long as possible.
- **Maintaining flexibility of resources and managerial capabilities** . The adaptive model does not deal with decisions about goals as emphatically as the linear model. Instead, it tends to focus the manager's attention on resources and capabilities, and the goals are represented by alignment of the organization with the environment. If markets are in a state of flux, then the internal resources and capabilities of a firm appear to be a more suitable basis for strategy formulation than the external environment (Grant 1996). For

instance, Honda had no superior strategy for entering the US motorcycle market, but it had unique dealer-network capabilities and superior engine expertise. In this conception, organizational flexibility depends on the inherent flexibility of resources available to the firm and on the firm's managerial capabilities in applying these resources to alternative courses of action (Sanchez 1995). Honda was able to apply its engine expertise in different end-products like motorcycles, cars, snowblowers, and lawnmowers. Similarly, Citibank is able to move rapidly to acquire other banks' portfolios and credit cards, adjust rates and prices, and target specific customer

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niches in promotional campaigns largely because of its continuing investment in general-purpose information-processing capabilities (Boynton and Victor 1991). In the linear model, such investments in flexible and general-purpose processing capabilities without known specific product returns would be considered signs of inefficiency. In the adaptive model, however, such investments create an asset for strategic surprise (see also Chapter 31).

The emphasis on the flexibility of resources deployed and managerial capabilities are further developed in the resource-based theory of the firm (Penrose 1959; Learned et al. 1969). This approach does not consider the firm as a black-box guided by the strategist, but as a bundle of firm-specific 'resources' which can lead to superior 'performance' (see also Sanchez's treatment of resources in Chapter 12). Although most of the proponents of the resource-based approach originally considered only pure physical resources, a shift can be seen towards more interest in 'intangible resources', 'tacit knowledge', and 'capabilities' (cf. Quinn 1992; Itami 1987; Teece, Pisano, and Shuen 1997). The more a firm can exploit its resources in various end-markets, create access to a broad knowledge base, and build up a variety of capabilities, the more flexible it becomes.

In summary, the adaptive model of strategic management requires an a priori flexible configuration of resources in order to facilitate ex post emergent strategies. In situations of fundamental uncertainty, the management has to keep options open and to build in flexibility in order to adapt to and successfully handle unforeseen contingencies and exogenous shocks. In this regard, flexibility is a strategic asset for facilitating effective responses to 'unanticipated' changes.

31.2.3 The Interpretative Model: Varying Strategic Schemas

Some discussion remains about the nature of incrementalism within the adaptive model. What exactly drives adaptation? How can small, resource-limited firms successfully adapt to competitive change while some corporate giants with plentiful resources and many strategic options cannot? For instance, how could a smaller company like Canon manage to make such a huge dent in Xerox's market share? Why was Sharp more successful in the electronic calculator business than Texas Instruments? Apparently, strategic options and flexible resources are not a sufficient basis for adaptation. The explanations for what drives adaptation vary from those who see adaptation as a result of cognitive schemas (Weick 1979), paradigms (Johnson 1987), or cultural idea systems (Smircich and Stubbart 1985).

Adaptation requires that participants are able to make sense of their environment and know what to adapt to. In other words, the question of what drives adaptation depends on the socially constructed reality of organizational participants. That is, reality is defined through a process of social interchange in which perceptions are affirmed, modified, or replaced according to their apparent congruence with the

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perceptions of others. Weick (1979) described this process as enactment. Members of organizations actively form or enact their environment through their social interaction. A pattern of enactment establishes the foundation of organized reality, which in turn has effects in shaping future enactments. Strategy in this *interpretative model* might be defined as strategic schemas or frames of reference that allow the organization and its environment to be understood by organizational stakeholders (cf. Bettis and Prahalad 1995; Chaffee 1985: 93). These strategic schemas lead to calculated behaviour of participants in non-programmed situations (Van Cauwenberg and Cool 1982). As such, stakeholders are motivated to believe and act in ways that are expected to produce favourable outcomes for the organization.

The most essential question for management becomes one of how to develop adequate strategic schemas that enable the firm to create or adapt to competitive change. The choice of schemas and interpretations becomes a creative and political art. Novel and interesting schemas may stimulate novel and interesting environments that can in turn preface novel and interesting strategic initiatives. For instance, when Sharp entered the electronic calculator business, it did not have an established strategic schema in the home appliance business, its main business. The calculator division of Sharp thus enjoyed a high degree of freedom in the strategy formulation process and was able to refine its strategic schema independently. While Sharp was able to refine its strategic schema, Texas Instruments could not change its schema. In TI, there already existed a sophisticated strategic schema in the semiconductor business, and its electronic calculator business was heavily dependent on the semiconductor division. When applied to the new business, the strategic schema which worked so well for TI in the semiconductor business led to failure.

Smircich and Stubbart (1985) argued that companies might be able to enlarge their capacities for novel interpretations by varying schemas systematically. Strategic management in this approach involves creating and maintaining systems of shared meaning that facilitate organized action. Similarly, Hamel and Prahalad (1994) discussed the concept of strategic intent: ambitious goals that stretch far beyond the temporal bounds of strategic plans. According to them, successful firms simply have more foresight, and are capable of imagining products, services, and entire new businesses that do not yet exist.

Nonetheless, too much control or too narrow an organizational set of beliefs and assumptions can prevent valuable strategic initiatives from rising from the front line, while too little guidance can result in destructive chaos. Organizations with very strong cultures usually suffer from xenophobia (Ouchi 1981). That is, they resist deviance, retard attempts at change and tend to foster homogeneity and inbreeding. IBM is an excellent example of a strong culture. Its strategic schema revolved around a set of unseen assumptions about the centrality of the mainframe business. This mainframe logic was strongly preserved in IBM's culture. The resulting cultural blocks hampered IBM's efforts to refashion its basic beliefs and assumptions in line with changes in the computer business.

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As the above arguments imply, flexibility means that strategic schemas must be broad enough to encourage strategic initiatives and narrow enough to suppress counterproductive actions. In this sense, a flexible organization is an organization with a core set of beliefs of a relatively high order and yet rather heterogeneous sets of beliefs at other levels (Peters and Waterman 1982). That is, there must be a 'constructive tension' between that which is necessary to preserve and that which must be changed (Kanter 1983), such as that between the need for managers to question and challenge and the preservation of core values and the organizational 'mission'.

31.2.4 Flexibility from a Strategic Perspective

On the basis of these developments in strategic management, flexibility has become a strategic asset in strategic management theories. In Table 31.1 these developments within strategic management are illustrated.

Table 31.1 Developments within strategic management and their contributions to organizational flexibility

<i>Strategic management</i>		
<i>Linear model</i>	<i>Adaptive model</i>	<i>Interpretative model</i>
Planning strategies	Flexible configuration strategies	Strategic schemas
In which direction do we have to change the firm's position in the environment?	How do we have to configure the resources of the firm for effective responses to unanticipated changes?	How do we give meaning to our activities for participants and stakeholders?
Problem area: establishing long-term goals	Problem area: developing flexible resources and capabilities	Problem area: creating and maintaining broad strategic schemas
Methods: long-term planning, SWOT analysis, determination of sustainable competitive advantages	Methods: analysing firms' resources and managerial capabilities	Methods: managing culture by concentrating on values, symbols, language, and dramas
Flexibility is a management capacity for quickly developing plans	Flexibility is an organizational capability for facilitating emergent, spontaneous strategies	Flexibility is an imaginative capacity for creating strategic schemas broad enough to encourage strategic initiatives

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Traditionally, a strategic manager is portrayed as a planner, an implementer of structure, and a controller of events who derives ideas from information. However, in a highly turbulent environment, the prescriptive assertions of the linear model are no longer tenable. As a consequence of more descriptive strategy research, the strategist's task is defined as organizational in the adaptive model and imaginative in the interpretative model. These developments have contributed substantially to the concept of flexibility, which from a strategic perspective means creating a flexible configuration of resources for facilitating emergent strategies and creating strategic schemas which enhance the creation of multiple interpretations. It results in a process of the management of 'unintended order' (Mintzberg and Waters 1985) or 'controlled chaos' (Quinn 1985), in which change as well as stability is possible. That is, the organization can respond to surprises and initiate novel actions, but is also able to resist certain changes or to squash destructive initiatives.

31.3 The Paradox of Flexibility: Tensions between Exploitation and Exploration

Theories of strategic management showed us that flexibility requires change and preservation. But how do firms reconcile the conflicting forces for change and stability? How do they promote order and control, while having to respond, renew, and learn? Expanding worldwide competition, fragmenting markets, and emerging technologies force established firms to renew themselves continuously by transforming stagnant businesses and creating new sources of wealth through new combinations of resources (Guth and Ginsburg 1990). On the other hand, short-term competitive forces require them to maximally exploit their existing capabilities and competencies.

Those tensions have been variously described in the strategy literature as change versus preservation (cf. Poole and Van de Ven 1989; Volberda 1996), adaptation versus selection (cf. Lewin and Volberda 1999), and exploration versus exploitation (cf. March 1991; Levinthal and March 1993). Examined less frequently is how firms deal with these tensions over time. There has been relatively little focus on the specifics of how firms develop firm-specific competencies and how they renew them to shifts in the industry. We will investigate dynamic theories that may provide answers for how to deal with these tensions.

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From an evolutionary perspective, organizations accumulate know-how in the course of their existence. They become repositories of skills that are unique and often difficult to transfer. These skills are the source of both inertia and distinctive competence. The inertia results from sunk costs in past investments and entrenched social structures, and also to organization members becoming attached to cognitive styles, behavioural dispositions, and decision heuristics. The accumulated skills that render firms inert also provide opportunities for strengthening their unique advantages and further improving their know-how. The potential benefits include greater reliability in delivering a sound and comprehensible product and many economies of efficiency and routine (Miller and Chen 1994: 1).

Among the best-known proponents of such an incremental view are evolutionary theorists (see Chapter 4) as well as researchers within the resource-based theory of the firm (see Chapter 12). In their *Evolutionary Theory of Economic Change*, Nelson and Winter (1982) present firms as repositories of routines which endow them with a capacity to search. Yet the same routines suppress attention span and the capacity to absorb new information by spelling out behaviour that permits search only for new ideas that are consistent with prior learning. In a similar way, the firm in the *resource-based theory* is seen as a bundle of tangible and intangible resources and tacit know-how that must be identified, selected, developed, and deployed to generate superior performance (Penrose 1959; Learned et al. 1969; Wernerfelt 1984). These scarce, firm-specific assets may lead to a core competence with a limited capacity to change. Just as with the evolutionary theory of economic change, the resource-based theory assumes that *firms are stuck with what they have and have to live with what they lack*.

While the suppression of choice is probably a condition for the efficient exploitation of a core competence, many studies show that in highly competitive environments a core competence can become a core rigidity (Leonard-Barton 1992; Burgelman 1994) or *competence trap* (Levitt and March 1988; Levinthal and March 1993). Firms develop core rigidities together with highly specialized resources to enhance profits at the price of reduced flexibility (Volberda 1996). GM, IBM, and DEC have encountered these traps (see Box 31.2). They have become prisoners of their deeply ingrained routines and irreversible, fixed assets, turning their formerly distinctive competencies (big cars, mainframe computers, minicomputers) into new problems to be resolved.

Box 31.2 GM's competence trap: extreme exploitation

General Motors' core competence throughout the 1980s and early 1990s is illustrative. It reinforced the mistaken belief that cars are status symbols and that styling is more important than quality. Further, finance exerted a tremendous dominance over the entire organization. The emergence of one dominant elite narrows the frame in which learning occurs. This kind of limited learning hampers search and filters away significant amounts of relevant uncertainty, diversity, and change signals. Consequently, the organization is motivated to transform ill-defined problems into a form that can be handled with existing routines. GM rewarded only volume and simply ignored quality. The inability of the organization to solve new, significantly different problems derived from this retardation of organizational learning. Mistaken perceptions of the customer and the tight financial instruments led to complacency, myopia, and, ultimately, decline. Money became a substitute for innovation, past success turned into dogma, and maintenance of the status quo became the measure of success.

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In a sense, the incremental view of developing competitive advantage based on maximal exploitation has the unintended consequence of building inertia that threatens survival in a Red Queen race. Teece, Pisano, and Shuen (1997), therefore, have suggested that the relative superiority of firm-specific resources and routines cannot be taken for granted and that, from a normative perspective, the firm must always remain in a dynamic capability building mode, in which the firm retains its capacity to renew, augment, and adapt its core competence over time. Similarly, Utterback and Abernathy's (1975) model posits that a firm which does pursue the evolution of its processes and products to the extreme may find that it has achieved the benefits of high productivity only at the cost of decreased flexibility and innovative capacity. It must face competition from innovative products that are produced by other flexible firms. NCR's focus on its established line of business, electromechanical cash registers, and ignorance of electronic machines is illustrative. From 1972 to 1976, it lost 80 per cent of the market for cash registers to more flexible manufacturers of electronic products. Likewise, GM was reluctant to design and build compact cars for fear this niche would cannibalize its big-car business. The strong focus on exploitation of existing opportunities leads to the proliferation of routines that become institutionalized in planning and control systems and shared norms and

values. The organization maximally adapts (static fit) and becomes very vulnerable when unexpected changes do occur. Learning and search processes take place only within narrow norms and values (single-loop learning) and result only in small, incremental changes (see Figure 31.2). Managers in these kind of organizations are mainly caretakers that are highly risk-averse and have a strong preference for stability.

Successfully competing in dynamic product markets requires resources, capabilities, and strategies that are intrinsically different from those likely to lead to competitive success in more stable markets (cf. Sanchez 1993). In the strategy field we see an increased attention to the dynamic capability approach (Volberda and Elfring 2001; Chapter 13 by Tallman) in which the emphasis is on exploring new opportunities (March 1991). However, the returns associated with exploration are distant in time and highly variable, while the returns associated with exploitation are proximate in time and more certain. It implies that management should not

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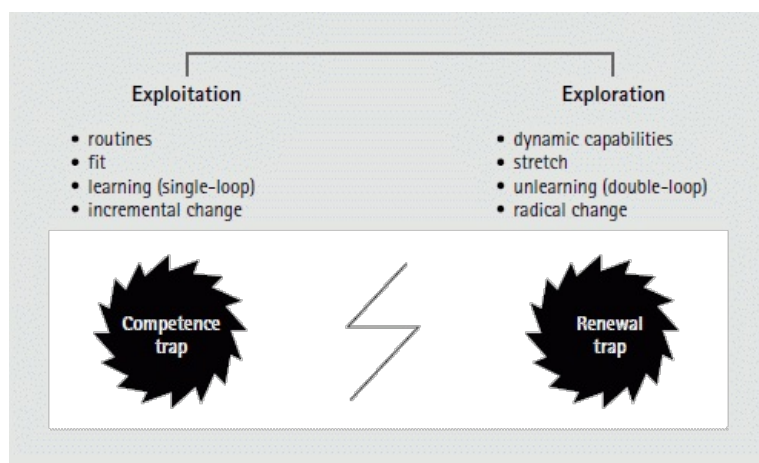


Fig. 31.2 The paradox of flexibility

completely adapt to the existing environment (fit), but create some slack in the organization (in terms of redundancies in resources and overlapping work roles) and the ambition to go for hardly reachable goals (stretch). Instead of tight fits, management has to look for loose fits in which there is some stretch for change (see Figure 31.2). With this leeway the organization can experiment and unlearn old, inadequate routines. It may result in radical changes initiated by managers with a more entrepreneurial profile (Stevenson and Gumpert 1985).

Still, it is debatable if companies that maximally explore will win the Red Queen race. Exploration can have dysfunctional effects too. 3M, a company with a superior track record in exploration of new opportunities, has found important drawbacks to overinvestment in renewal: patient financial and intellectual resources, an environment that encourages people to work around and even defy their superiors, and a determination to let the company follow where its scientists and customers lead (*Fortune* 1996). The company does not have a clear strategy; the development and introduction of a product merely evolves. Patience, for example, has cost 3M dearly in the magnetic-storage business (diskettes, videotape, and audiotape). Still, 3M held on because the business supported technologies it needed elsewhere. A well-articulated strategy could have helped 3M work its way to a quicker and less drastic resolution of the long-simmering problems in its imaging and electronic storage businesses. Too much exploration creates instability as a consequence of overreactions and excessive information searches. The organization exaggerates the importance of local errors and becomes overresponsive to fads and fashions. Continuous adjustments may waste resources on 'noise' in environmental signals. They result in chaotic organizations that cannot retain a sense of identity and continuity over time (Weick 1979: 215). Chronic exploration destroys the identity or shared idea system

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of the organization. It creates a vicious circle that results in a *renewal trap* characterized by potentially serious problems with conflict of authority unclear responsibilities, inadequate controls, lack of direction and shared ideology, and, consequently, greater scope for chaos and inefficiency (Volberda 1996, 1998). The decline of Apple Computer, once the hip flagbearer of high tech, is illustrative (see Box 31.3).

Box 31.3 Apple's renewal trap: extreme exploration

Apple created the legend of two kids in a garage inventing a computer and then building a company where the old corporate rules

were scrapped: no dress or hair codes, no formal meetings. This anarchic culture facilitated renewal, but also fostered chaos and conflict. It led to many clashes between the creators, or the 'technical wizards', and the experienced managers hired to run marketing and finance. Year after year, key decisions such as licensing the Mac operating system were postponed, reversed, or avoided completely as various executives and factions tried to push their own agendas.

How can firms excel in a Red Queen race of dynamic competition? Figure 31.2 already showed us overexploitation of existing opportunities as well as overexploration of new opportunities are dysfunctional for the firm and lead to a competence trap or a renewal trap. Overexploitation ends in organizational rigidity. By focusing on planning, the organization eliminates all strategic choice. Once an optimal fit is achieved, search for new strategies tends to decline. The organization accumulates repertoires of programmes, and grows insensitive to change signals. The limited search of single-loop learning facilitates the development of a set of 'distinctive competencies' that allow the organization to develop incremental innovations. Its routines and standard operating rules, however, eliminate organizational potential: the organization is doing what it had been doing more efficiently, but is unable to question the appropriateness of its actions. Consequently, planning strategies are reinforced and errors in beliefs and norms remain. The organization is dominated by a tendency towards conservatism, delay in decision-making, and ossification. The accumulated inertia may well be so significant that it threatens the firm's survival when environments change irreversibly.

On the other hand, overexploration ends in chaos. It increases the firm's potential to deal with emergent problems in the form of expanded search and a higher level of curiosity. The associated double-loop learning, which goes together with totally new values and norms, encourages radical innovations. Nonetheless, the focus upon destroying the value of existing approaches may result in instability as a consequence of overreactions and excessive information searches. Continuous adjustment of strategic schemas and reallocations of resources may waste energy

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on 'noise' in environmental signals. Consequently, the firm is transformed into a chaotic organization that cannot retain a sense of identity and continuity over time.

To sum up, extremity in either direction of the paradox between exploration and exploitation creates dysfunction in the form of rigidity or chaos. Only flexible firms that somehow solve the paradox of exploitation versus exploration may win the Red Queen race of dynamic competition. The difficulties of the flexibility paradox are illustrated by the tensions between the two main divisions of KLM Royal Dutch Airlines, the KLM Passenger and KLM Cargo divisions (see Box 31.4). To be flexible, an organization must possess attributes that are simultaneously contradictory, even mutually exclusive (see Figure 31.2).

Both contradictions of the paradox of flexibility are accepted and present. Both operate simultaneously. In her study of high-tech firms in the Silicon Valley, Bahrami (1992) showed that emerging flexible enterprises were able to manage opposing tensions. They facilitated creativity, innovation, and speed while maintaining coordination, focus, and control. They could accommodate opposing tendencies and yet function as coherent and cohesive firms. Similar tensions also seem to confront many established corporations (cf. Bartlett and Ghoshal 1988). Percy Barnevik, former CEO of ABB, describes the firm's challenge as dealing with tensions such as global versus local, big versus small, and centralized versus decentralized. British Petroleum's challenge is how to reinforce corporate control while allowing its constituent businesses much greater speed and response. In this connection, Andrew Grove of Intel introduced the metaphor 'agile giant'; big enough to win global wars of products, technology, and trade, while moving like a small company.

Box 31.4 The tensions between exploitation and exploration within KLM

KLM is a one-system company, that is, its divisions share the same resources, namely airplanes. Within the passenger division, the focus is on exploitation: achieving tight cost reductions by essentially doing more of the same activities. By contrast, within the Cargo division the emphasis is on exploration. This means doing new things in new businesses such as offering an increasing number of added value services to customers (transporting dangerous goods, live animals, or expensive paintings), attracting new customers, and providing non-transport related logistic services (subassembly of components, stock maintenance). According to Jacques Ancher, former Executive Vice President of KLM Cargo, 'Our greatest challenge is to let go; there is no place for a command and control culture. We have to be prepared for mistakes, and be prepared to learn from them. This requires an entirely different mindset to the one we had last year: it demands nothing short of fundamental change.' The KLM board, however, faces the question of how to reconcile exploitation (tight cost reductions) and exploration (new businesses) in one single company. The new cost-cutting programmes initiated by Chairman Leo van Wijk seem inescapable in the airline industry but have the negative effect of eliminating exploration.

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31.4 A Strategic Framework of Flexibility

Although rivalry-reducing strategies and traditional organizational forms have worked well in the relatively stable environments of the past, the globalization of markets, rapid technological change, shortening of product life cycles, and increasing aggressiveness of competitors have radically altered the ground rules for competing in 2002 and beyond. Instead of long, stable periods in which firms can achieve sustainable competitive advantage (static competition), competition is increasingly characterized by short periods of advantage punctuated by frequent disruptions (dynamic or Red Queen competition). The strategic behaviour and underlying organizational forms of successful firms in these hypercompetitive environments (D'Aveni 1994) have received much attention recently.

On the basis of the dynamic theories in strategic management discussed in Section 31.3, we develop an integrated framework that relates competitive environments, type of managerial capabilities, and organizational conditions. In this framework, changing competitive environments require fundamentally new management and organizing principles, resulting in alternative flexible forms (see Figure 31.3). Competitive changes force firms to move more quickly and boldly and to experiment in ways that do not conform to traditional administrative theory. In order not to be competed away by the Red Queen effect, firms have to continuously develop and adapt new sources of advantage, thus being the fastest runner in the Red Queen race. This dynamic process requires new modes of managing and organizing to enable firms to explore new opportunities effectively as well as exploit those opportunities efficiently, to change their strategic focus easily as well as develop some strategic direction, and to change their dominating norms and values as well as correct deviations from essential norms and values. How can firms reconcile these conflicting forces?

The framework proposed here suggests two important tasks required to resolve the paradox of flexibility. First, it is argued that flexibility is a *managerial task*. Can managers respond at the right time in the right way? In this connection, the concern is with the variety and speed of managerial capabilities that endow the firm with flexibility; for example, manufacturing flexibility to expand the number of products the firm can profitably offer in the market or innovation flexibility to reduce the response time for bringing new products to market. Secondly, the framework suggests that flexibility is an *organization design task*. Can the organization react at the right time in the directed way? The concern here is with the controllability or changeability of the organization, which depends on the creation of the right conditions to foster flexibility. For instance, manufacturing flexibility requires a technology with multi-purpose machinery, universal equipment, and an extensive

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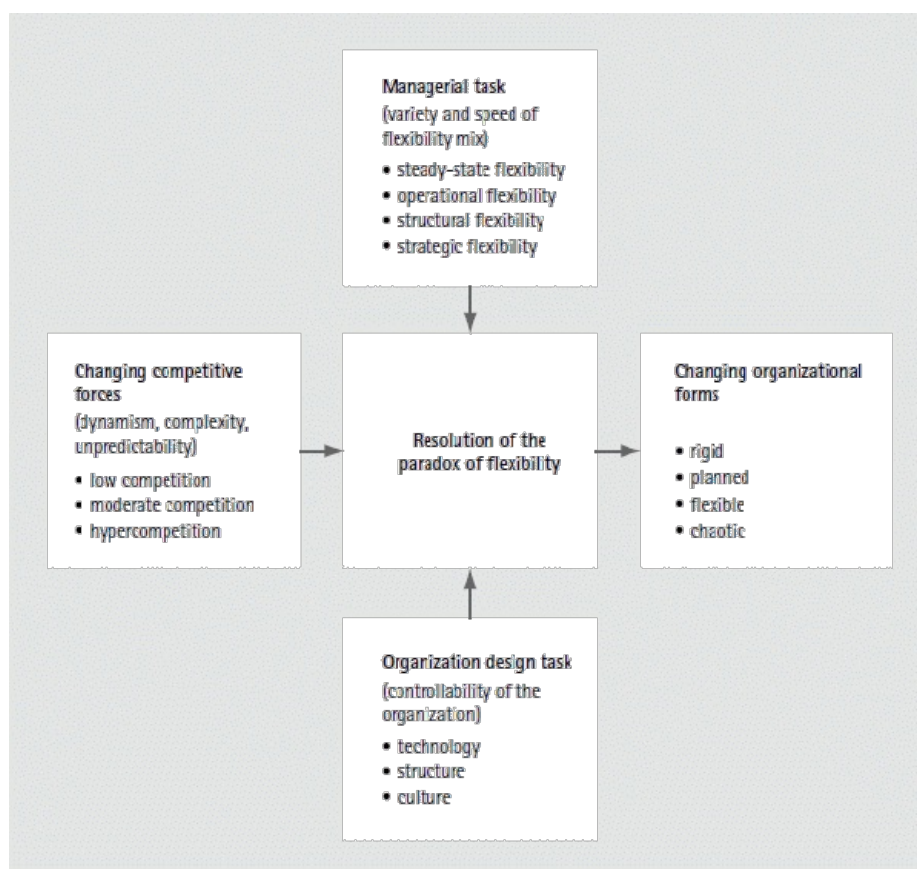


Fig. 31.3 A strategic framework of flexibility

operational production repertoire (cf. Adler 1988). Similarly, innovation flexibility requires a structure of multifunctional teams, few hierarchical levels, and few process regulations (cf. Quinn 1985).

Combining the managerial and organization design tasks involves a process of matching and resolving paradoxes. Management must develop dynamic capabilities that enhance flexibility, and the firm must have an adequate organizational design to utilize those capabilities. Consequently, management must cope with a constructive tension (Kanter 1983) between developing capabilities and preserving organizational conditions, which can be considered the building blocks of flexibility. Different companies put these building blocks together in very different ways. From this framework we can therefore obtain several alternative flexible forms, each of which reflects a particular way of coping with the paradox of change

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and preservation. We will now first elaborate on the management and organization design task of flexibility. Subsequently, we will distinguish various flexible forms.

31.4.1 The Managerial Task: Developing Dynamic Capabilities

As a managerial task, flexibility involves the creation or promotion of capabilities for situations that generate unexpected disturbance. Figure 31.4 shows two core components of this managerial task, variety and speed.

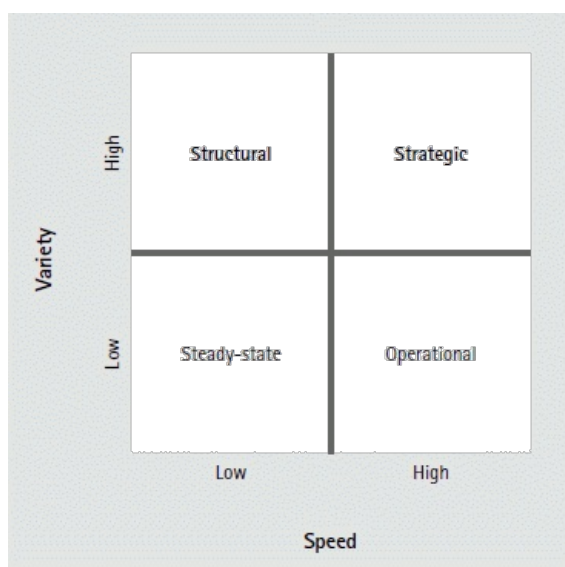


Fig. 31.4 Types of flexibility

Variety of managerial capabilities. Both the currently used arsenal of capabilities and the collection of potential flexibility-increasing capabilities that are not yet activated are important. Currently used capabilities have already been deployed for the purpose of flexibility. The possible emergence of opportunities or threats requires management to have some potential capabilities as insurance against risk (see Scott 1965). Ashby (1964) demonstrated that to be able to respond to all circumstances, a firm must have a variety of capabilities at least as great as the variety of disturbances in the environment. In a turbulent environment, management needs an extensive, multidimensional collection of capabilities. Variety can be in terms of either the quantity (the number) of capabilities or the quality of capabilities (such as temporary versus durable flexibility-increasing capabilities).

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For instance, the training of multi-skilled personnel results in a durable improvement in flexibility, whereas the contracting out of certain peripheral activities or 'hire-and-fire' employment practices results in a temporary improvement in flexibility. Temporary flexibility-increasing capabilities lead to a reduction of the potential for use once allocated, but durable flexible capabilities are not restricted in use.

Speed. Management may have the necessary capabilities, but may not be able to activate them in time. Flexibility is not a static

condition, but a dynamic process. Speed is therefore an essential factor of organizational flexibility.

The dynamic capabilities that endow the firm with flexibility are manifested in the '*flexibility mix*'. Considering the variety and speed of dynamic capabilities, we can distinguish four types of flexibility (see Figure 31.4): steady-state, operational, structural, and strategic. Each type represents a simple combination of more/less variety of capabilities and fast/slow response.

Steady-state flexibility (low variety, low speed) consists of static procedures to optimize the firm's performance when the levels of throughput and the nature of throughput remain relatively stable over time. It hardly seems to be a real type of flexibility because under steady-state conditions there is only minor change and a relatively low premium on speed of response to external conditions.

For the other three types of flexibility, a distinction can be made between internal and external flexibility (Ansoff 1965). Internal flexibility is defined as management's capability to adapt to the demands of the environment. External flexibility is defined as management's capability to influence the environment so that the firm becomes less vulnerable to environmental changes. Examples of these types of flexibility are provided in Table 31.2. The table shows that the variety and speed of managerial capabilities may result in various levels of managerial manoeuvring capacity and can be both internal and external.

Operational flexibility (low variety, high speed) consists of routine capabilities that are based on present structures or goals of the organization. It is the most common type of flexibility and relates to the volume and mix of activities rather than the kinds of activities undertaken within the firm. The routines used are directed primarily at the operational activities and are reactive. Operational flexibility provides rapid response to changes that are familiar. Such changes typically lead to temporary, short-term fluctuations in the firm's level of activity. Although the variety in the environment may be high, the combinations of conditions are sufficiently predictable for management to develop routine capabilities to reduce uncertainty.

Operational flexibility can be internal or external. Examples of internal operational flexibility are the variation of production volume, the building up of inventories, and the maintenance of excess capacity. For instance, vertically integrated fashion apparel firms like Benetton or The Limited have developed 'quick-response' capabilities aimed at shortening the manufacturing cycle, reducing

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Table 31.2 Examples of internal and external types of flexibility

	<i>Internal</i>	<i>External</i>
	<i>Internal operational flexibility</i>	<i>External operational flexibility</i>
<i>Routine manoeuvring capacity</i>	<ul style="list-style-type: none"> • variation of production volume • building up of inventories • use of crash teams 	<ul style="list-style-type: none"> • use of temporary labour • multi-sourcing • reserving of capacity with suppliers
	<i>Internal structural flexibility</i>	<i>External structural flexibility</i>
<i>Adaptive manoeuvring capacity</i>	<ul style="list-style-type: none"> • creating multifunctional teams • changing managerial roles • alternations in control systems 	<ul style="list-style-type: none"> • purchasing of components from suppliers with a short delivery time (JIT) • purchasing of subassemblies from suppliers (co-makership) • developing of subcomponents together with suppliers (co-design)
	<i>Internal strategic flexibility</i>	<i>External strategic flexibility</i>
<i>Strategic manoeuvring capacity</i>	<ul style="list-style-type: none"> • dismantling of current strategy • applying new technologies • fundamentally renewing products 	<ul style="list-style-type: none"> • creating new product-market combinations • using market power to deter entry and control competitors • engaging in political activities to counteract trade regulations

inventory levels, and enabling manufacture in response to sales during the season (Richardson 1996). These routine capabilities in rapid learning, communication, and coordination supplant traditional core competencies in design and fashion sense. Rather than bet on a few designs from the most savvy designers, these firms try out many designs, quickly imitate others, and continue to produce what sells. Though product innovations and demand changes are rapid and somewhat unpredictable, introducing new products and responding to changing demands are routine manoeuvring in fashion apparel. New styles and designs do not usually require new types of inputs or process technologies. The object of this kind of internal operational flexibility is a more efficient, less risky operation in a volatile end market. In addition to these internal types, external operational flexibility can be achieved by contracting out certain peripheral activities, using temporary labour to adjust the size of the workforce to shifts in product demand, or obtaining resources from more than one supplier.

Structural flexibility (high variety, low speed) consists of managerial capabilities for adapting the organization structure, and its decision and communication processes, to suit changing conditions in an evolutionary way. When faced with

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revolutionary changes, management needs great internal structural flexibility or intra-organizational leeway to facilitate the renewal or transformation of current structures and processes. Examples of internal structural flexibility are horizontal or vertical job enlargement; the

creation of small production units or work cells within a production line; changes in organizational responsibilities; alterations in control systems; the use of project teams; and the transformation from a functional grouping to a market-oriented grouping with interchangeable personnel and equipment.

Structural flexibility can also be external in terms of inter-organizational leeway in supporting and sheltering new technologies or developing new products or markets. Examples include various forms of JIT purchasing, comakership, co-design, or even joint ventures and other coalignments. By increasing structural relations with outsiders, the organization can engage more easily in new developments. This type of flexibility is perfectly illustrated by Nordvest Forum, a group of 46 small- and medium-sized firms in and around the city of Alesund on the north-west coast of Norway (Hanssen-Bauer and Snow 1996). In order to cope with hypercompetitive environments, these regional firms developed network relationships that expedite the learning process and help the member firms to upgrade their adaptive capacity so that they can compete more effectively in both the national and international marketplaces. More extreme examples of superior external structural flexibility include large dominating firms or strategic centres such as Nike, Nintendo, Sun Microsystems, and Toyota (Lorenzoni and Baden-Fuller 1995). These firms responded to increasing competition by forming tight network organizations in which they perform only a few unique functions along the value chain and outsource the remaining functions to specialist partners. Such relationships can be temporary, as in the case of a past alliance among IBM, Intel, and Microsoft in the computer industry, or it can endure, as in the long-standing relationships between Nike and its production partners in the athletic footwear and apparel industry (see Chapter 22 for a more elaborate treatment of alliances and networks by Faulkner). From the focal firm's standpoint, external structural flexibility raises interesting questions about the relative efficacy of internal versus external avenues towards new products, technologies, and knowledge. When management retains the opportunity to modify the structural relationship and leave a relationship that no longer meets its needs (external structural flexibility), external avenues can be very attractive. If not, internal avenues by means of internal structural flexibility are more appropriate.

Strategic flexibility (high variety, high speed) consists of managerial capabilities related to the goals of the organization or the environment (Aaker and Mascarenhas 1984). This most radical type of flexibility is much more qualitative and involves changes in the nature of organizational activities. It is necessary when the organization faces unfamiliar changes that have far-reaching consequences and needs to respond quickly. The issues and difficulties relating to strategic flexibility are by definition unstructured and non-routine. The signals and feedback received from the environment tend to be indirect and open to multiple interpretations, 'soft' and

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'fuzz'. Because the organization usually has no specific experience and no routine answer for coping with the changes, management may have to change its game plans, dismantle its current strategies (Harrigan 1985), apply new technologies, or fundamentally renew its products. Its response may also be external, for example influencing consumers through advertising and promotions (Mascarenhas 1982), creating new product market combinations (Krijnen 1979), using market power to deter entry and control competitors (Porter 1980), or engaging in political activities to counteract trade regulations. New values and norms are necessary and past experience may not provide any advantage. The creation of new activities in new situations may be very important. For instance, Regional Bell Operating Companies (RBOCs) that were spun off from AT&T developed strategic flexibility from international expansion activities because the international managers in the unregulated side of the business questioned past practices, raised new assumptions about the organization, and promoted significant changes in strategy. The transfer of strategic capabilities from international operations to domestic network operations was helpful in awakening wireline operations to the realities of coming competition and the need for employees to be flexible, strategic thinkers (Smith and Zeithaml 1996).

31.4.2 The Organization Design Task: Creating Adequate Organizational Conditions

The ability to initiate the repertoire of managerial capabilities depends on the design adequacy of organizational conditions, such as the organization's technology, structure, and culture. Those conditions determine the organization's controllability or responsiveness. If management tries to increase the flexibility repertoire beyond the limits of organizational conditions, the controllability of the organization will diminish.

Designing the appropriate organizational conditions requires identifying the type of technological, structural, or cultural changes necessary to ensure effective utilization of managerial capabilities. For many service and manufacturing organizations, recent developments in *technology* have created a range of programmable automation systems and general information systems that seem to afford much greater flexibility potential (Adler 1988; Iltner and Kogut 1995). In this connection, 'technology' refers to the hardware (such as machinery and equipment) and the software (knowledge) used in the transformation of inputs into outputs, as well as the configuration of the hardware and software. The design of technology can range from routine to non-routine, corresponding to the opportunities for routine capabilities. Richardson's study (1996) of fashion apparel firms shows those firms that redesigned their technology by implementing new information technologies

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such as CAD/CAM equipment and EDI developed a much greater potential for operational flexibility.

Increases in controllability might also involve changes in *organizational structure*. Organizational structure comprises not only the actual distribution of responsibilities and authority among the organization's personnel (basic form), but also the planning and control systems and the process regulations of decision-making, coordination, and execution. The structural design of the organization can range from mechanistic to organic (Burns and Stalker 1961), corresponding to the opportunities for adaptive capabilities.

Many large corporations are undertaking organizational restructuring to increase their responsiveness (a more detailed discussion can be found in Chapter 28 by Whittington). For instance, Xerox was able to exploit its superior technological and market capabilities after fundamentally changing its organizational architecture by creating business divisions with self-organizing teams and developing new reward and recognition systems (Howard 1992). Similarly, Smith and Zeithaml (1996) illustrated that the newly developed capabilities of two Regional Bell Operating Companies (RBOCs) could be successfully deployed after drastic restructuring and organizational redesign.

Not only structural changes, but also cultural changes may be necessary to increase the controllability of the firm. *Organizational culture* can be defined as the set of beliefs and assumptions held relatively commonly throughout the organization and taken for granted by its members (Bate 1984). Essential features of such beliefs are that they are implicit in the minds of organization members and to some extent shared (Hofstede 1980). These beliefs may constrain managerial capabilities by specifying broad, tacitly understood rules for appropriate action in unspecified contingencies (Camerer and Vepsalainen 1988). The organizational culture can range from conservative to innovative, depending on the slack within the current norms and value systems for strategic capabilities.

The beliefs and assumptions of the organizational culture also play a central role in the interpretation of environmental stimuli and the configuration of organizationally relevant strategic responses (Johnson 1987). Does the organization see new strategic options? Can it deviate from present patterns? The more innovative the culture, the greater the leeway for strategic flexibility within the organization. Hence, many large Western corporations such as GE, Philips, and ABB have not only restructured themselves, but also tried to change their corporate cultures. After downsizing and delayering, GE started its famous workout programme, best-practice sessions, and change acceleration programme (Tichy and Sherman 1994). In the same way, Philips' Centurion programme started with an efficiency drive but was followed by a cultural revitalizing module initiated by the concern committee, Values and Behaviour (the Philips Way). An even more radical cultural change was attempted by ABB, which developed a 21-page 'Mission, Values, and Policy' booklet referred to inside the company as the policy bible when it formed its global matrix

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structure. Moreover, Craig's (1996) study of two players in the Japanese beer industry reveals that cultural change is also an important issue in Japanese companies. Asahi initiated and Kirin responded to hypercompetition by not only working on their functional structure, but also reconsidering their intolerant culture. Both firms fundamentally changed their corporate culture by corporate identity and empowerment programmes.

31.4.3 A Typology of Alternative Forms for Coping with Hypercompetition

Our strategic framework shows that the managerial task and the organization design task have to be matched with various levels of competition to achieve effective flexibility (see Figure 31.3). From our framework we can obtain four ideal types: the *rigid*, *planned*, *flexible*, and the *chaotic* form. Each type represents a particular way of addressing the flexibility paradox of exploration versus exploitation, and some are more effective than others.

31.4.3.1 The Rigid Form: Strategic Programming

In a rigid organization management has a very restricted flexibility mix dominated by simple procedures (steady-state flexibility). Its choice and variation possibilities are limited; improvisation is forbidden in the organization. The mature technology (routine), the functionalized and centralized structure with many hierarchical layers (mechanistic), and the monotonous and narrow-minded culture (conservative) do not allow potential for flexibility and result in a fragile and vulnerable organization (see Figure 31.5).

In a static, simple, and predictable environment, we often find rigid forms. In such non-competitive environments, firms have established positions that enable them to develop absolute sustainable competitive advantages and generate excessive profit potential. In such environments, there is little need for managers to expend effort on a flexibility mix or for the organizational conditions to generate potential for flexibility. Too much flexibility is a nuisance. Strategy in the rigid form is limited to the development of strategic programmes, which are mainly based on extrapolation of existing trends.

31.4.3.2 The Planned Form: Strategic Planning

The *planned form* also has a narrow flexibility mix, but its variety of routines and organizational responsiveness are less limited than in the rigid organization. The flexibility mix consists mainly of specific rules and detailed procedures, which are sophisticated and complex and require an extensive information-processing

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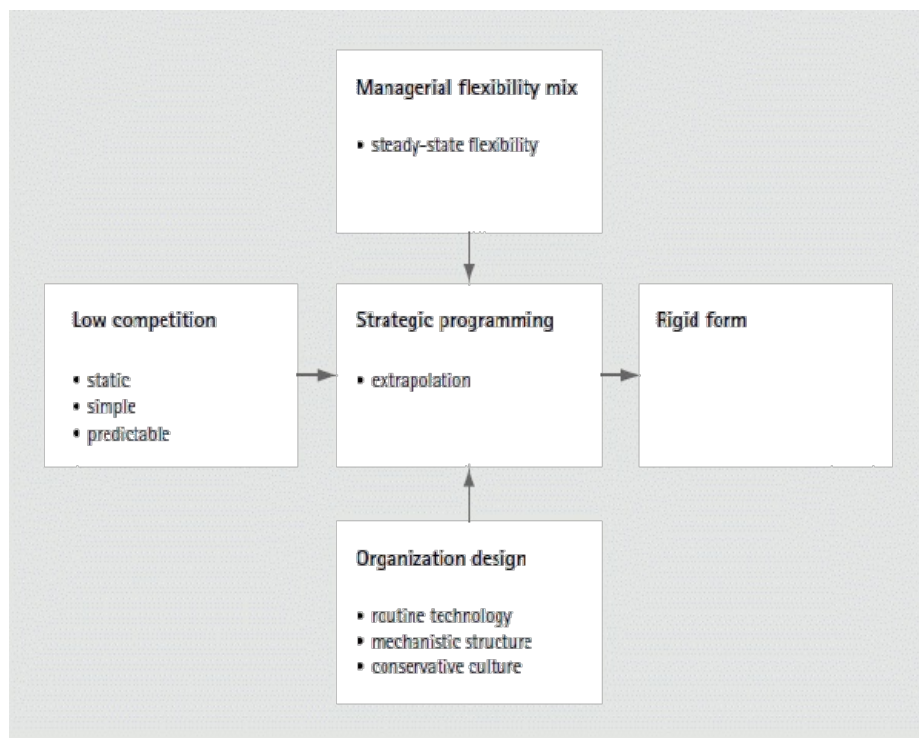


Fig. 31.5 The rigid organization form

capacity. Moreover, for every possible change, management has developed a certain routine (superior operational flexibility). The rigidity of this organizational form is not a result of the technology or the basic organizational structure, but of strong process regulations such as standardization, formalization, and specialization, and very detailed planning and control systems. Also, the shared cultural beliefs and assumptions of its members give very little leeway for deviant interpretations of the environment, and dissonance is potentially threatening to the organization's integrity. This form resembles the 'ideal-type' bureaucracy of Weber (Perrow 1986). As long as the organization encounters no unexpected changes, its controllability is high. However, if changes occur that are not anticipated in the planning repertoire and are threatening to the idea system shared by its members, the result is a situation known as '*strategic drift*' in which consciously managed incremental changes do not necessarily keep pace with environmental changes (Johnson 1988: 88). The incremental changes result only in further attempts by the firm to perfect its process regulations and basic beliefs and assumptions. These attempts increase organizational inertia, and rigidity sets in.

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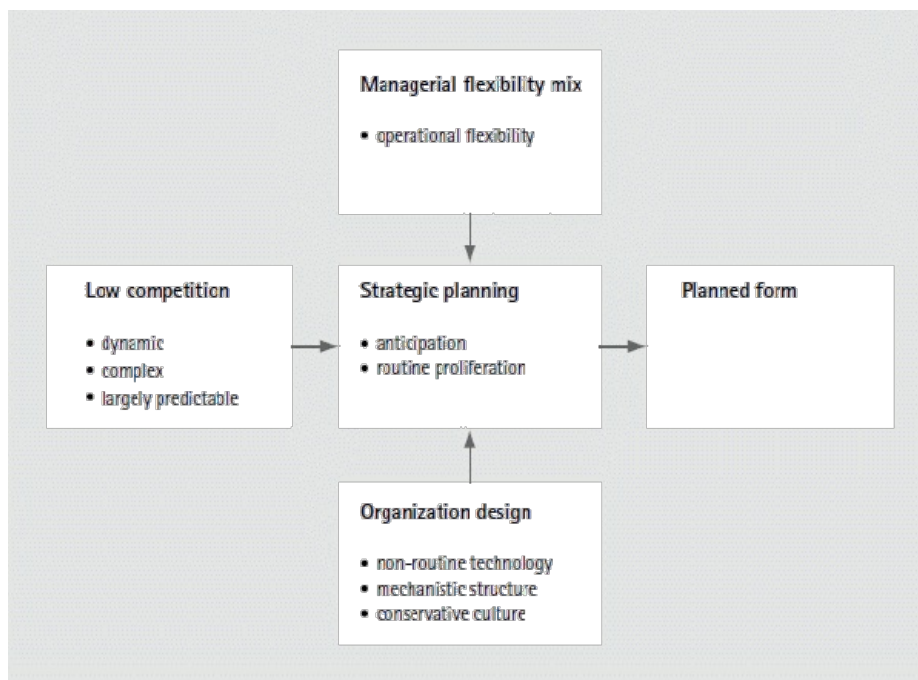


Fig. 31.6 The planned organization form

The planned form is very adequate for firms coping with moderate competition. For survival in such dynamic and complex but largely predictable environments, managers must activate many sophisticated routines to cope with complex changes. They need a potential for operational flexibility originating from a non-routine technology. In such moderately competitive environments, firms seek to establish stable 'oligopolies' by implicit collusion or developing sustainable competitive advantages (D'Aveni 1994: 224). The creation of strong entry and mobility barriers can reduce intra-industry rivalry. Competition may be characterized by relatively long periods of incremental, competence-enhancing changes (Tushman and Anderson 1986). Although competitive changes can be very dynamic and complex, they may be predictable to a large extent and various routines (ranging from simple to sophisticated) can be developed. Management therefore needs an extensive information-processing capacity to anticipate complex changes and to facilitate the development of routines (see Figure 31.6). Strategic management in the planned firm involves scanning the environment (think on *early warning systems*), reducing rivalry and systematically developing strategic plans.

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31.4.3.3 The Flexible Form: Adaptive Strategies

In contrast to the planned form, the *flexible form* has an extensive flexibility mix dominated by strategic and structural flexibility. In addition, its ability to change its organizational conditions is reasonably high. It effectively adapts to disturbances without the organization losing its distinctiveness. Resistance to signals of threat to the idea system is low; the innovative culture helps the firm to constructively incorporate new perspectives. They can be implemented easily through adaptations within the current (non-routine) technology and (organic) structure. At the same time, it develops some dominance over its environment to preserve its identity, and effects a balance between exploration and exploitation.

Flexible forms are effective in fundamentally unpredictable environments, which may also be dynamic and complex (see Figure 31.7). In such hyper-competitive environments, management must activate both strategic flexibility and structural flexibility, which originate from innovative culture and organic structure. The escalating degree of competition results in short periods of advantage punctuated by frequent disruptions, which are associated with departures from current approaches that reduce the value of established commitments and competence and require fundamentally new capabilities. While the

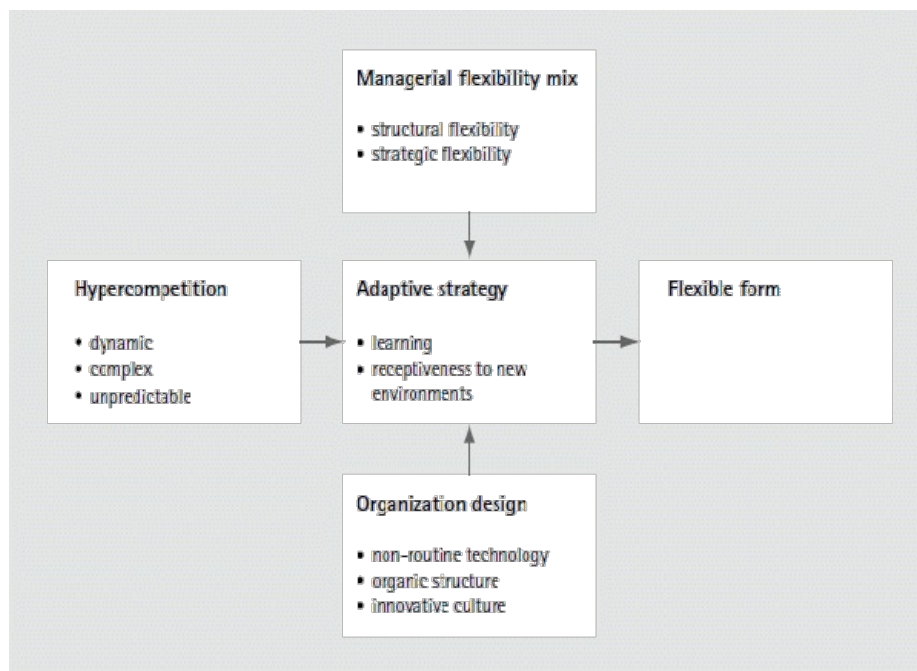


Fig. 31.7 The flexible organization form

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liability-of-newness problem plagues new firms confronting moderate competition within well-established markets, the liability of age and tradition seriously constrains established successful firms confronting hypercompetition (Stinchcombe 1965; Tushman and Anderson 1986). Hypercompetition is facilitated by the disequilibrium-creating activities of firms that are capable of breaking new ground, pioneering new fields, promoting radical innovation, and partially or completely transforming the organization in the process. Instead of building on current routines as a part their operational flexibility, such firms develop high levels of structural and strategic flexibility.

Strategic management in such flexible firms requires intelligence-gathering and information-processing directed towards enhancing the receptiveness to new environments and increasing the learning capacity of management. The signals and feedback received in such unpredictable environments are very indirect and open to multiple interpretations. Extrapolation or other conventional management tools are not useful in this context. The problems are by definition unstructured and non-routine and the scarce information is very soft and fuzzy. New values and norms are necessary and past experience may not provide any advantage. It involves a change in the criteria of evaluation; past practices need to be questioned, new assumptions about the organization have to be raised, and significant changes in strategy have to be considered.

31.4.3.4 The Chaotic Form: Spontaneous Strategies

Finally, the *chaotic form* has a very extensive flexibility mix dominated by strategic flexibility, but is totally uncontrollable (see Figure 31.8). In organizations with this form, the possibilities for variation are unlimited because there is no anchorage within a set of basic organizational conditions. The innumerable initiatives for change are impossible to implement. Chaotic organizations have no distinct technology, stable administrative structure, or basic shared values stemming from their organizational culture. Consequently, the environment can push a chaotic organization in any direction. A chaotic organization's lack of administrative stability is caused by *strategic neglect*, which denotes the deliberate tendency of managers not to pay attention to the administrative structure of the organization (Burgelman 1983: 234–7). As a consequence of the lack of strong strategic orientation and a stable structure managers' decision-making capacity is greatly reduced. Decisions are delayed although the situation requires an immediate decision.

On the basis of our framework, we can argue that flexible modes are most likely to prosper in dynamic rugged landscapes with many peaks as sketched out by the Red Queen, planned modes in sloping hilly landscapes with moderate competition, while rigid modes seem only to survive in quiet valleys with stable competition. The chaotic mode seems to be locked in a Red Queen race, without being able to sustain competitive advantages. The chaotic mode tries to move faster than the company

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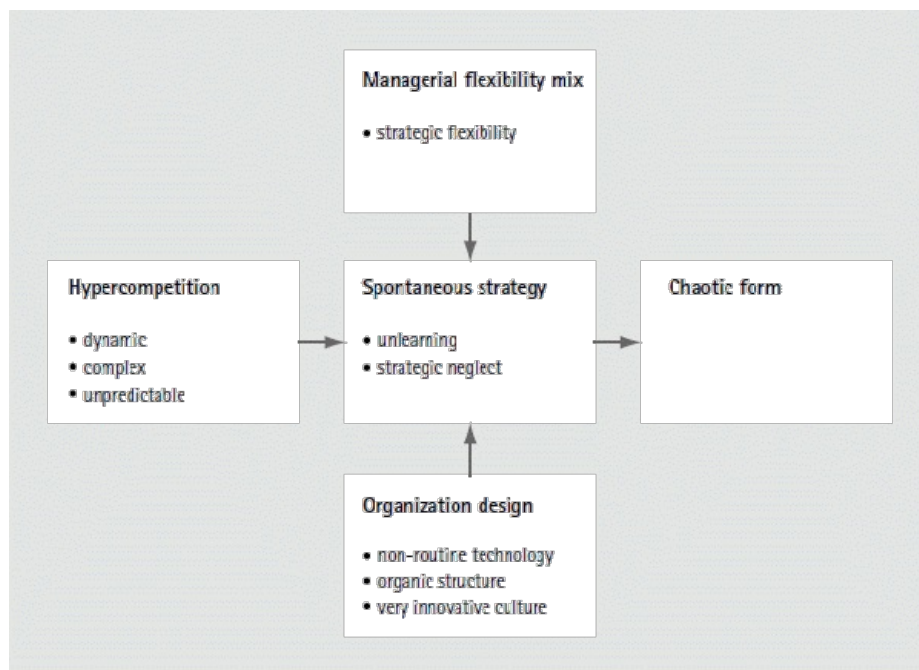


Fig. 31.8 The chaotic organization form

can actually do. Management overreacts to competitive change and the organization is unable to respond. Although the chaotic form has a negative connotation, this mode can however be helpful for regulated firms that are confronted with increasing competition. To unlearn old routines and existing monopolistic mindsets, the chaotic mode can be an effective temporary alternative. In particular, resource-rich firms can use chaotic forms to quickly develop new capabilities in their unregulated business.

31.5 Single Trajectories of Revitalization

In the previous chapter, we developed a strategic framework that distinguishes the building blocks needed to analyse and discover new flexible forms. Various alternative

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forms enable firms to initiate or respond successfully to different kinds of competition. None of these forms, however, creates a permanent solution. Shift may occur in the level of competition, and the organization has to prevent itself from overshooting and becoming extremely rigid or chaotic. On the basis of the extensiveness of the flexibility mix (simple routines versus dynamic capabilities) and the controllability or responsiveness of the organization (low versus highly controllable), we can distinguish various trajectories for coping with changing levels of competition (see Figure 31.9).

31.5.1 The Natural Trajectory of Routinization: Decreasing Levels of Competition

The most likely trajectory firms go through is a transition from a chaotic state to flexible, planned, and rigid forms (see Figure 31.9). During this process of decreasing levels of competition, management's increased capacity to process information facilitates the proliferation of routines, thus creating natural trajectories. These trajectories correspond with those in Nelson and Winter's evolutionary theory

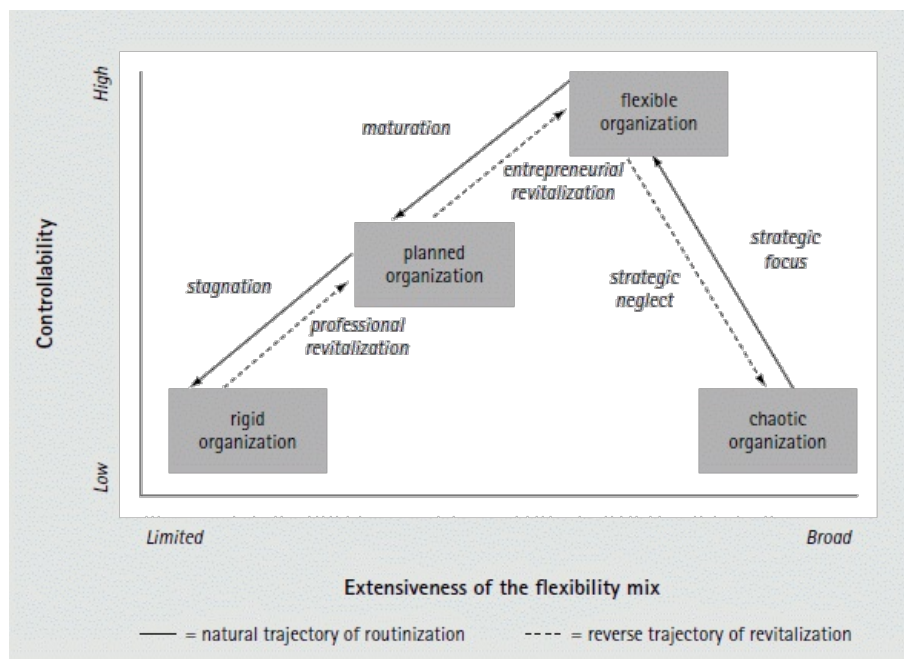


Fig. 31.9 A typology of alternative flexible forms for coping with hypercompetition

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(1982), which holds that radical change becomes less possible as the organization ages. The natural trajectory of routinization suggests that starting entrepreneurial firms and new ventures operate chaotically in order to develop new capabilities. This state of loose and unsettled relationships is organic and responds easily to environmental change, but necessarily has slack and is inefficient (Utterback and Abernathy 1975: 641). To 'get off the ground', this form must be sufficiently well organized to change from a chaotic state of random, disconnected, and uncoordinated impulses. This transition requires a capacity for achieving some degree of *strategic focus*.

As the level of competition decreases, the flexible organization faces a crisis. It must become more efficient in its operations to extract greater benefit from the changes that it introduced previously, and to exploit its existing knowledge and opportunities. These change efforts are particularly important if the organization is to stay ahead of its imitators and other competitors, which are busy enhancing their competencies. The transition from a flexible form towards a planned form can be portrayed as a process of *maturation* (Miller and Friesen 1980: 285). Maturation requires a greater need for the firm to professionalize and institutionalize its intelligence-gathering and information-processing functions, and to integrate efforts of its decision-makers by formal means (process regulations). Whereas managers in the flexible form may have gathered information quite informally on their own, the firm must now set up systems and departments to gather certain types of information routinely and to disseminate this information to appropriate decision-makers.

However, in the process of adapting and refining the organizational conditions to efficiently exploit time and response opportunities, the planned organization runs the risk of losing its strategic and structural flexibility as it concentrates increasingly on accumulating and optimizing a large number of operational procedures and routines (operational flexibility). In such circumstances, it may become progressively more rigid. In this progression toward *stagnation* (Miller and Friesen 1980: 283–4), the routinization and systematization of organizational conditions bring bureaucratic momentum, traditions, and resistance to change. These all play an important role in boosting conservatism. As a result, the rigid form is characterized by a reduced emphasis on product-market innovation, risk-taking, and proactiveness. The rigid form has pursued the development of specialized routines at the cost of decreased flexibility and innovative capacity.

Many large corporate giants such as GE, IBM, and Philips realized years ago that they went too far with this process of routinization and created extremely rigid organizations. They want to be revitalized in more flexible or even chaotic forms. Many theorists doubt, however, that large, established firms can self-consciously change themselves very much or very often, or that conscious initiatives by management are likely to succeed. They argue that older, larger corporations must die off, like dinosaurs, to be succeeded by a new breed better adapted to its

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environment, in much the same way that has characterized biological evolution. Others, like Kanter (1994) and Baden-Fuller and Stopford (1994), have demonstrated that mature firms can become flexible enough to balance corporate discipline with entrepreneurial creativity. In fact, there are many routes mature corporations might take to effect this goal. On the basis of our typology, we will provide a more systematic analysis of alternative trajectories directed towards 'revitalization' of mature or declining organizations. Such trajectories are most likely to be effective in extremely turbulent environments.

31.5.2 The Reversed Trajectory of Revitalization: Escalating Levels of Competition

For many organizations, the transition from a chaotic state towards a rigid organization can be regarded as a natural trajectory. A transition in the reverse direction can also be perceived as a trajectory, though it may not be as easy to achieve or seem as 'natural' as the former process (see also Chapter 29 by Williamson on strategy innovation). Such trajectories of revitalization, initiated for creating temporary disequilibria, are most likely to be effective under situations of hypercompetition. Some likely trajectories are considered based on flexibility studies within the Dutch Postbank, Philips Semiconductors, and the Dutch National Gas Corporation (see Figure 31.10)

The dangers for rigid organizations in non-competitive environments stem from their increasing vulnerability to the occurrence of major change in their environments, and from the exhaustion of profitable opportunities obtainable in these niches. As these organizations are confronted by low and diminishing returns from established product lines and rapidly escalating competition from numerous rivals in the same field, they must seek to exploit opportunities flowing from more unstable environments, or attempt to generate major innovations. Confronted with escalating levels of competition, they face the task of shifting back towards the flexibility mix and the organizational conditions of the planned organization. This transition, or *professional revitalization*, involves the comprehensive and often dramatic movement away from traditions, conservatism, and rigidity and towards adaptiveness, vigilance, and diversification (Miller and Friesen 1980: 281). Such a trajectory was evident within the Administrative Department of the Dutch National Postbank, which was recently privatized. In the past, its main line of business had been retail banking because of restrictions imposed by the Dutch government. It provided mostly standardized services to more than six million account holders. After it was deregulated, it intended to provide more customized services as a part of corporate banking. It was confronted, however, with increasing national and international competition, new information technologies in banking, increased pressure on interest margins, and the introduction of new banking-related services.

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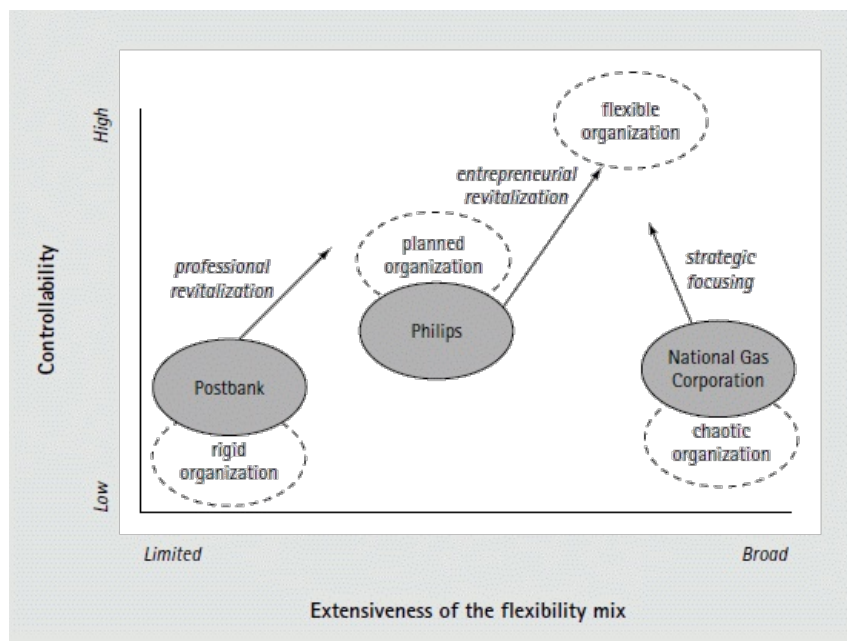


Fig. 31.10 Single trajectories of revitalization

The Administrative Department of Corporate Accounts, which was bureaucratically organized for a non-competitive environment, had to adopt a more comprehensive flexibility mix dominated by operational flexibility, which in turn originated from a more adaptive technology (broadly applicable information systems) and a larger operational production repertoire by employees.

When professional revitalization proves inadequate, the planned organization must transform itself further into a more flexible form.

Although planned forms have developed a great number of complex routine capabilities, they are seriously handicapped when confronted with hypercompetition. This change in the composition of the flexibility mix can be realized only if the organization moves towards even more flexible or multi-purpose technologies, develops a more organic structure, and adopts a more heterogeneous, open, and externally oriented culture. Such efforts help to promote asymmetry within the previous organizational form while propelling the organization towards the creation of new temporary advantages better suited to hypercompetitive environments. This process of *entrepreneurial revitalization* is promoted by such changes as new leadership composed of visionary entrepreneurs, reduction of process regulations (specialization, formalization), loose organizational forms (grouping by target market, flat structure, and broad management tasks), a more open external orientation, and a high tolerance for ambiguity.

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A transition of entrepreneurial revitalization occurred within Philips Semiconductors. The rapidly escalating competition in cost and quality (price erosion and unforeseen volume developments) and in timing and know-how (introduction of plastic diodes, release of higher voltages version, new crystal types, and the advance of integrated circuits in the application markets) forced the firm to increase its structural and strategic flexibility to more easily exploit unknown opportunities in those hypercompetitive areas. It effected this entrepreneurial revitalization by radically transforming itself from a bureaucratic, conservative company into an innovative and responsive one (see Figure 31.10). Managers initiated autonomous task groups, created interdisciplinary marketing-production-development teams, used less formal planning and control systems, developed a unique logo for the plant, and organized social events, special training, and a news bulletin for employees. The combination of these efforts made the transformation possible.

If the organization successfully transforms itself, it faces the opposite danger of overshooting its target and becoming chaotic. For example, the R&D Department of the Dutch National Gas Corporation had unlimited potential for flexibility, but managers could not capitalize on it. In other words, the department was too flexible. The department had many initiatives for new research, but it could not implement them because it had no clear administrative structures or shared values stemming from its culture. Nor did it have adequate information about man-hours, costs, or technical progress per project. The schizophrenia of the department resulted in distorted information that managers could not use to make appropriate decisions. Consequently, various environmental forces (board, internal clients) could force the department in any direction. This *strategic neglect* resulted in a lack of decisiveness about research priorities, a fragmented structure, and a loose constellation of subcultures. As Kanter (1988: 195) pointed out, creating change requires some stability. Organizational structures and cultures must allow continuity and preserve the organization in the midst of change. In particular, Kanter proposed that strong social ties and strong beliefs in fundamental values create stability for the organization. If successful revitalization is not anchored in stability, it runs the danger of provoking chaos.

31.6 Dual Trajectories of Revitalization in Multi-unit Organizations

So far, our typology was applied to a division or business unit with only one line of business. However, evidence of corporate transformations in regulated companies

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suggests that if multiple levels or multiple parts are considered, dual trajectories of transformation for coping with hypercompetition can be found in a single company. We will consider these dual trajectories because they illustrate how large, established firms can create flexibility to cope successfully with increasing competition.

31.6.1 Dual Trajectories within American Baby Bells

Building on our typology, Smith and Zeithaml (1996) found two different trajectories within the same Regional Baby Bells Operating Company (RBOC). Before 1984, local telephone service activities were protected within the rigid organizational form and natural monopoly status of AT&T. After divestiture, the RBOCs shifted their core activities into more planned modes, but in their unregulated business they created more chaotic modes. In other words, the two distinct areas followed two different trajectories: professional revitalization of core telephone activities, and strategic neglect and subsequent focusing of early chaotic international activities (see Figure 31.11).

The traditional wireline activities could be initially characterized as rigid because they still operated in highly regulated environments, had received a windfall local

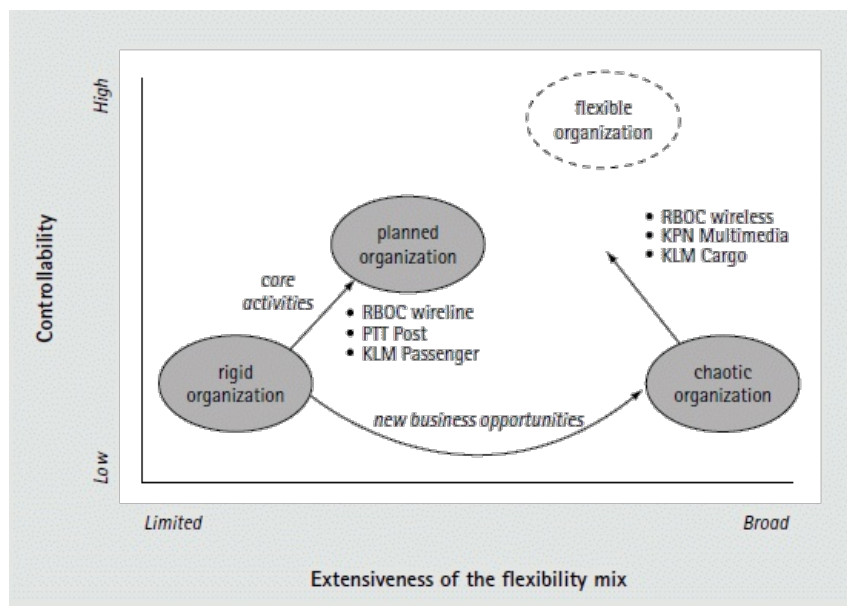


Fig. 31.11 A dual-trajectory revitalization for multi-unit firms facing extreme competition

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rate in 1984, and held a monopoly in local service. In the early 1990s the management efforts of two RBOCs resulted in a transition from extreme rigidity towards a more planned organizational form (reduction of domestic regulations, establishing incentive-based rate making) in the regulated side of the RBOCs' business. While managers in these two firms were trying to understand their new regulatory environment, they had neglected many of their more speculative unregulated activities, such as international expansion. Lack of supervision allowed chaotic forms, but top management intervention and focusing enabled international managers in these firms to develop some flexible modes with a high level of strategic flexibility: fast start-ups of new, international entrepreneurial ventures, flexibility in bidding on deals and partner selection, and learning about technologies such as a digital cellular and bypass operations. These 'marketing mavericks' and 'corporate renegades' led the development of new learning and new capability development from international activities. They determined that they could not continue to manage with their existing monopolistic mindset, in which they controlled all aspects of the business, and that they had to learn to react quickly to changes in international opportunities.

The fact that these two RBOCs now complain about their 'split brain' personality is not surprising given their two trajectories: one through chaos and another through a more planned mode. Within both RBOCs, the flexibility in international activities contrasted with the more planned nature of the rest of their activities. One RBOC solved this paradox by knitting the regulated and unregulated sides into an integrated whole (synthesis), whereas the other accepted the paradox by splitting the company in two (spatial separation) to increase both parts' chances for survival. In the integrated RBOC, the cross-fertilization was helpful in awakening the wireline operations to the realities of coming competition (Smith and Zeithaml 1996: 395). The CEO of this organization tried to change the conservative culture under which the regular side of the business had operated for many years by integrating the learning, experiences, and capabilities of managers of unregulated activities into the regulated activities. The CEO of the other RBOC believed that its regulated and unregulated units would have better chances of developing appropriate types of flexibility by refocusing their activities rather than meshing them together.

Recently, many large corporations (e.g. AT&T, Nedloyd, ITT, Unisys, Vendex) have split up into separate parts in order to separate well-developed planned core activities from new flexible growth activities. Other large established corporations have split off flexible parts of their rigid or planned core, such as EDS from CM, Eastman Chemical from Eastman Kodak, and Sprint Cellular from Sprint. Many other large established corporations will probably also divest because it seems that shareholders value extreme spatial separation of planned and flexible forms more than some kind of balanced corporation.

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31.6.2 Dual Trajectories for Coping with Increasing Competition: TNT Post and KLM

The dual-trajectory model of organizational transformation may be of value to other regulated companies, such as electronic utilities, railway, and post companies that must address dramatically changing competitive forces. In increasingly competitive environments (e.g. the introduction of competition in a nearly monopolistic industry), areas of chaos should perhaps be created or tolerated by top

management, while core activities should move along a revitalization path. Similar trajectories were found in the Dutch PTT Post (see Box 31.5).

Box 31.5 Dual migration paths within the Dutch PTT Post

The Dutch PTT Post, in the meantime TNT Post, was one of the largest divisions of KPN and made up of several business units (letters, parcel service, mediaservice, international, EMS, logistics, philately) and joint ventures (Post Offices, GD Express Worldwide, Interpost Group of Companies). It was preparing itself for the transition from a highly regulated environment to a more competitive one. To revitalize its core activities and exploit new growth opportunities, it initiated several change projects such as Mail 2000, Tele-present, and New Formulas for the Post Office network. In the Mail 2000 project it worked together with A. T. Kearny on improving its competencies in physical transport and distribution of mail, still its core business. By automating the sorting process and reducing the number of sorting hubs, it increased the steady-state and operational flexibility of its primary process. In the Post Office project, it adopted a McDonald's formula to focus on the client. Despite this professional revitalization of its core activities, it realized, however, that the amount of mail it will deliver will further decrease due to other communication means, that its margins will diminish, and that wages and inflation increase. To compensate for decreasing revenues and increasing costs of the traditional planned post organization, it needed new growth areas. To develop these areas, it started various chaotic projects such as the tele-present project with outside partners, VNU (a Dutch publishing firm) and RTL (a European media-service company). In this project it helped develop a new service: clients could give orders to send gifts, a kind of tele-shopping. The service was located in a new developed business unit, namely mediaservice. It required the development of a call centre, a tele-present information system, warehousing (PTT Logistics), and distribution (Parcel Service). For PTT Post, this project formed an entry avenue into the electronic super-highway and the development of data distribution capabilities. In addition, this venture was the forerunner of a multi-mall project, in which clients could order products in a virtual store. Nonetheless, in the consolidation of this project, the corporate management of KPN decided to position Tele-present in the KPN Multimedia Division, which is a 50–50 per cent joint venture of PTT Post and PTT Telecom. In order to develop data warehousing and distribution capabilities, PTT Post could learn much from the PTT Telecom Division, which had already coped with tough competition for several years.

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This dual trajectory can also be found in less regulated companies such as KLM, which faces extreme competition (see Box 31.6). While KLM's Passenger Division is working on a trajectory of professional revitalization (continuously improving service levels, reducing overall costs, and increasing operational flexibility in terms of flight capacity and personnel), its Cargo Division went through a radical transformation from a rigid to an extremely chaotic organizational mode (offering an increased number of value-added services to customers, attracting new customers, and

Box 31.6 Radical transformation of KLM Cargo

KLM Cargo, a division of KLM Royal Dutch Airlines, is one of the world's leading air cargo carriers. It intends to rank among the top three customer-driven suppliers of high-quality transport, distribution, and information services worldwide. It has embarked on a radical change programme, turning itself inside out in the process, to fulfil this mission.

A major step in this endeavour occurred in 1989 with the development of the KLM corporate programme Vision '93, which led to the reconfirmation of the airline's core activities and the creation of two divisions: passenger and cargo. In 1994 KLM Cargo launched the 'Division in Transition' programme, which incorporated not only issues of strategy and structure but the determination to effect behavioural change throughout the organization. Until then, KLM's main cargo activities were made up of predominantly generic transport services, which are packaged and supplied to the end-user. The margin on these generic services has been slowly eroded: carriers can provide these services only if the highest priority is given to efficiency. Moreover, KLM Cargo did not know who its clients were, and their customers—the freight forwarding agents—frequently turned out to be their competitors. KLM Cargo's new strategy was therefore based on end-customers that are prepared to pay extra for value-added products, the exact nature of which differs from client to client. This move towards an organization that will be able to offer yet more added value to clients required a shift from Air Network, which offers a distributed network with a central hub, to Air Logistics or even Full Logistics. Essentially, all providers of base commodities (airlines, truckers, shipping lines) find that the further they move downstream towards the customer, the more their perspectives need to shift from mono-modal to multi-modal, and from basic transportation services to more complete logistics service options.

In realizing this fundamental change, the creation of an entirely different mindset was most important. It now had to

perceive itself as provider of integrated logistics instead of an airline operator with only transport and distribution services. This unlearning of its old strategic schema and relearning of a new one required it to invest heavily in flexible capabilities to provide a variety of customized added-value services. Furthermore, it decided to fundamentally redesign the organization. Thus, it flattened the organization and arranged its functions into three disciplines (Operations, Sales, and Customer Service), five business units (Cargo Service Centres, which perform handling activities; Mail; IT; Logistics; and a Special Cargo Unit, which is responsible for such cargoes as perishables, valuables, and live animals); and seven staff departments. The obvious reason for this structural change was to get closer to customers, cutting down the bureaucracy, and empowering people to act innovatively and swiftly.

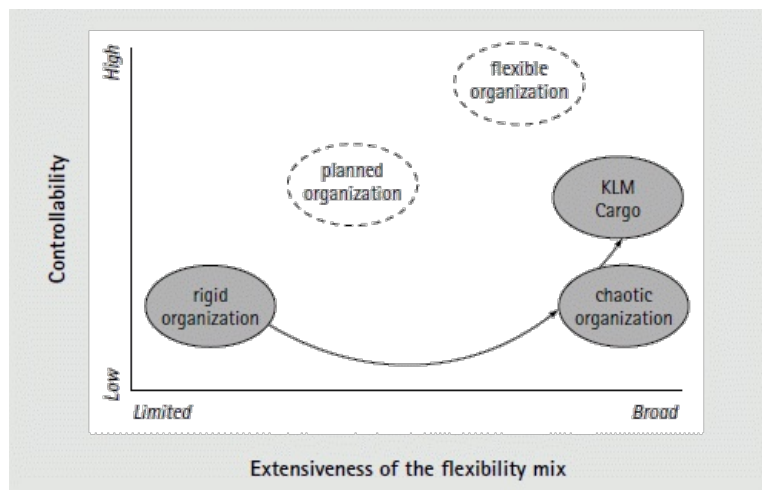


Fig. 31.12 KLM Cargo: a trajectory of radical transformation

In less than one year, it had managed to change its geographic hierarchical structure into a flat dual structure with central functional departments and autonomous business units. Everybody had to reapply for new management positions and managers often had to move from one continent to another. Furthermore, it created self-organizing teams in the factory. In order to facilitate these fundamental changes, management organized awareness courses, training seminars, and interactive workshops.

While this radical change from a rigid towards a chaotic state created momentum for change, however, it also caused some major problems. First, the applicability of both information systems and the skill repertoire of employees (rigidity of technology) to new services was very limited. Moreover, the splitting of the Division into functional departments (Sales, Operations, and Customer Service) and five business units (Cargo Service Centre, Mail, IT, Logistics, and Special Cargo) resulted in large sequential interdependencies and fights about who owns the customer. Furthermore, there was much resistance from lower-level managers who were not involved in the change process (cultural values). In order to exploit its newly developed capabilities, management standardized the service portfolio (commodities, specialties, and customized) and developed a more transparent structure in which a new department of business systems was responsible for more efficient coordination. In addition, management tightened its strategic vision and developed a code of conduct for communicating the common cultural values in KLM Cargo. After the transformation, KLM Cargo could be positioned somewhere between the flexible and the chaotic mode (see Figure 31.12).

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providing non-transport related logistic services) and is now slowly shifting towards a more flexible mode (categorizing the service portfolio, a more transparent structure, tightening the strategic vision, and developing Cargo values and a code of conduct).

For these dual trajectories to succeed, top managers must be able to tolerate the presence of initially chaotic modes so that learning takes place. On the other hand, they should have some business intuition of when to intervene, focus on certain activities, give additional resources, or terminate activities.

Moreover, one may ask when it is appropriate for management to choose a sequential revitalization from a rigid to a planned to a flexible mode, and when it should choose to radically transform the organization from a rigid to a chaotic to a flexible mode. Our data suggest that a radical transformation is less time-consuming, but more risky because the scope of change is large and the content of change is most difficult (Baden-Fuller and Volberda 1997). It requires the organization to transform quickly and in a holistic manner, which carries severe dangers. There is a risk that the organization will disintegrate into chaos. Sequential revitalization will therefore be most effective when the firm is not concerned with speedy reaction. By contrast, radical transformation will be more effective when there is a pressing need for the organization to respond collectively.

31.7 Reconfiguring the Multi-unit Firm: New Permanently Flexible Corporations

How can firms win the Red Queen race of permanent change and increasing competition? From our typology, trajectories of organizational 'success and failure' in meeting various levels of competition were obtained. In the old mode of competition in which firms' attention is directed towards reducing the level of competition, a natural trajectory of routinization is most likely. In the new mode of rapid, escalating hypercompetition, a trajectory of revitalization is more likely to be successful. To be front runner in the hypercompetitive environments of the Red Queen, firms must continuously increase the variety and speed of their flexible capabilities as well as their organizational responsiveness. Of course, we have to realize that both trajectories have their pitfalls.

The risk of a trajectory of routinization is that it will transform the firm into a rigid form as a result of strategic drift. The surplus of operational flexibility, consisting of sophisticated routines, creates inertia in the form of a very mechanistic structure

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and a very narrowly focused culture. Growing resistance in an organization to 'deviant' interpretations of the environment reflects a tendency towards 'overbalance' of the rigid form. On the other hand, a trajectory of revitalization risks turning a firm into a 'chaotic form' as a result of 'strategic neglect'. The surplus of structural and strategic flexibility in this situation can lead to unfocused actions with dysfunctional results. The chaotic form's lack of administrative structures, sense of direction, shared beliefs, and institutional leadership is characteristic of a tendency towards 'underbalance' of the chaotic form.

How should multi-unit firms reconcile the conflicting forces of exploitation and exploration? They have to cope with different levels of competition at the same time and need efficient exploitation as well as superior exploration (see Chapter 19 by Prahalad and Doz). In terms of our typology, these organizations need properties of the flexible, planned, or even chaotic forms at the same time or in different portions of the corporation. Is there a more permanent solution? We distinguish in this section four corporate responses for combining in some way the elements of exploration and exploitation (see Figure 31.13): opposition (network corporations), spatial separation (dual corporations), temporal separation (oscillating corporations), and synthesis (balanced corporations).

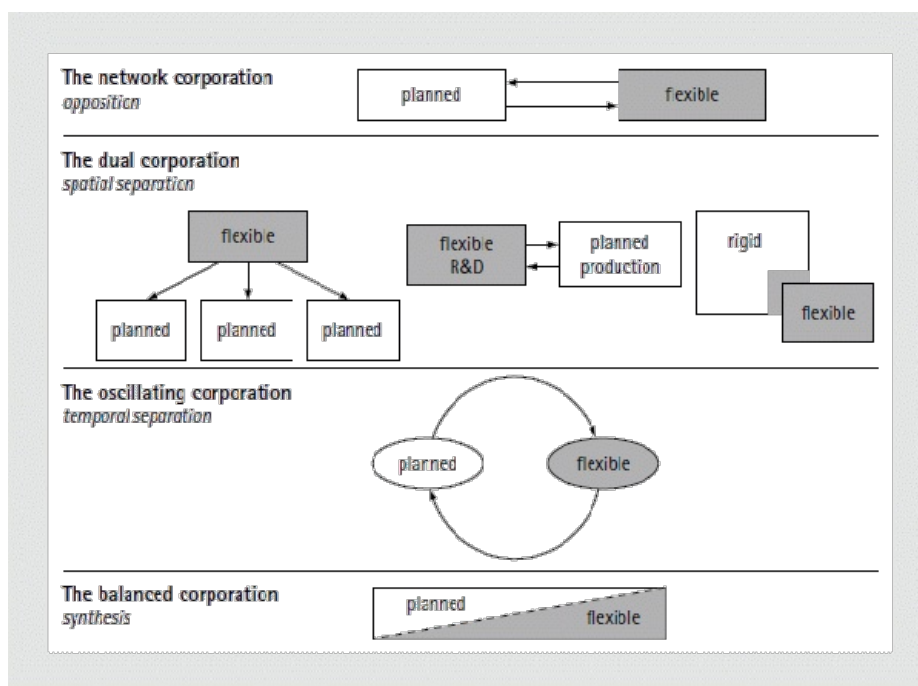


Fig. 31.13 Permanent flexible multi-unit firms

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31.7.1 Opposition: The Network Corporation

Most corporations find it difficult to combine the discipline of a planned form with the openness of a flexible form. The network corporation accepts the tension between change and preservation, but believes that the opposition between exploitation of routines (planned mode) and exploration of new flexible capabilities (flexible mode) cannot be solved within the firm. Thus, it outsources the problem of change or preservation to others (Baden-Fuller and Volberda 1997). It is essentially a broker of planned, flexible, or even chaotic organizational modes linked in a variety of complex ways (Miles and Snow 1986). Resolving the paradox of change and preservation can take place in the network because there is no longer a clear distinction between competition outside the organization and cooperation inside (see Figure 31.13 (a)). Rather, the partners in the network experience both competition and cooperation. Competition is a driving force for change, but cooperation helps ensure resources and stability. This view was also espoused by Ouchi (1981) in his discussions of clans of organizations. The social pressures to aspire to higher achievement and the resources of the network provide industrial clans with powerful mechanisms for resolving the flexibility paradox of change and preservation. However, the same features which give these networks strength, especially the strong social bonds, can also slow radical change. That is, corporate networks run the risk of becoming tight networks in which there is no real opposition or constructive tension between change and preservation.

Many will recognize this corporate network form as an approach that has been embraced by a small, but growing number of highly successful companies over the past decade. The UK-based Amstrad, which has battled successfully against much larger firms in the consumer electronics and computer industries, is illustrative. It has built market share for an expanding range of high-tech durables that are developed and manufactured with heavy dependence on outsourced components, subassemblies, and other inputs (Bartlett 1993). Another example is Nike, which has strategic flexibility in capabilities focused tightly on product design and marketing, and externalizes almost all 'planned' manufacturing and distribution functions. To achieve flexibility in what they do without incurring high costs or losing efficiency, these central firms create alliances among smaller naturally flexible firms (Lorenzoni and Baden-Fuller 1995).

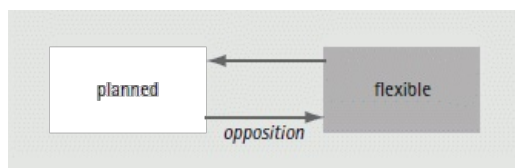


Fig. 31.13(a) The network corporation

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31.7.2 Spatial Separation: The Dual Corporation

In the network, participating firms do not solve the exploration/exploitation paradox but focus on one of its two components. Another way to deal with the flexibility paradox is to solve it within the corporation by simultaneously developing flexible and planned modes in different portions of the corporation. In these 'dual' corporations, one horn of the paradox operates at one level of analysis, while the other horn operates at a different level. Spatial separation can occur by level, function, and/or location. Level differences are related to hierarchy (e.g. top versus middle versus front-line managers), functional differences are caused by the distinctive functions performed, processes applied, or knowledge used (e.g. marketing, production, engineering) and location differences are influenced by geography or business unit (see Figure 31.13(b)).

An example of a *level* distinction can be found in the traditional M-form, in which top management operates in a flexible mode and has a high absorptive capacity for exploring new business opportunities (Chandler 1962). In this setting, the divisions operate best in the planned mode for maximally exploiting these business opportunities; they change only as a result of the strategic intent of top management. The new corporate form of GE emerging from Jack Welch's redesign efforts is a more sophisticated version of such a hierarchically divisionalized structure (Miles, Coleman, and Creed 1995). Yet, we can also think of corporations in which the strategic exploration of new opportunities takes place at the lowest level; interactions with the market and demanding clients cause front-line managers to call into question their norms, objectives, and basic policies. Corporate management operates in the planned mode, which permits it to persist in its set policies and achieve formulated objectives, which change as a result of autonomous behaviour of front-line managers. This reversed hierarchy can be found in 3M.

Separation by *function* can be found in nearly all corporations. Usually, production departments operate in a rigid or planned mode for reasons of efficiency and scale, marketing departments operate in a more flexible mode since they are exposed to various customer

demands, while R&D departments that are engaged in highly unpredictable research projects operate in a chaotic mode. More extreme

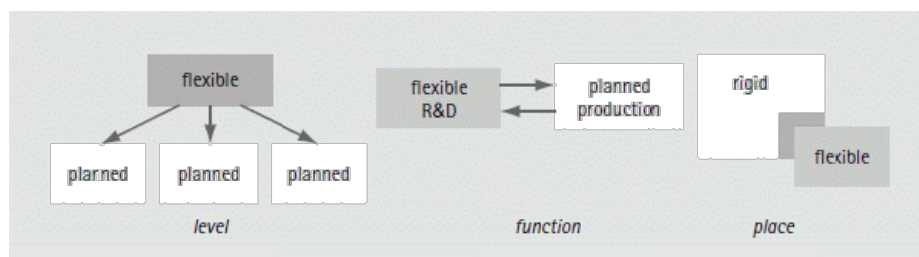


Fig. 31.13(b) The dual corporation

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examples of functional separation for solving the flexibility paradox can be found in Honda and KLM Cargo. In order to make functional tensions visible, Honda broke itself apart in a far more radical fashion than had ever occurred in its industry (Pascale 1990). R&D and Engineering were split into two separate companies. While Honda Motor Company (with sales and manufacturing) is the parent, and primary customer, each of the three companies now has its distinct identity and specific organizational mode. The tensions between these companies, each highly independent, yet interdependent, are not suppressed, but serve as the engine of change and renewal.

Similarly, KLM Cargo decided to split its Cargo Factory (handling, warehouse management, and flight network control), in which volume and efficiency are most important, from the business units, in which service, market penetration, and the development of new logistic services dominate. The functional separation allows each business unit to respond to various well-defined markets, but still share in processes and technologies.

Yet, dividing a corporation into its functional parts can result in dysfunctional tensions and a fragmented organization that has lost its synergies. In Honda, the shared culture is strong enough to handle stress without tearing. In KLM Cargo, the lack of this increased the need for setting rules and guidelines on how to use shared assets. Management thus decided to create a new unit, Cargo Business Systems, which is responsible for coordination, systemization, and organization of the core processes.

A third way of spatial separation is by *location*. In almost every diversified firm, one sees asymmetry between high-growth businesses and older, mature operations. That is, mature divisions confronted with moderate competition operate in a planned mode, whereas some new divisions developed to create or counter hyper-competitive disruption may operate in a flexible or even chaotic mode (cf. Galunic and Eisenhardt 1996). We can distinguish separation by location in different degrees, varying from the creation of skunk works (Peters and Waterman 1982), corporate ventures (Fast 1979; Burgelman 1983) to even completely new venture departments. At the simplest level, we can think of isolating a flexible unit from a rigid operating core. This principle was applied at IBM when the IBM PC was developed, as the mainframe logic was strongly preserved in IBM's culture and prevented entry into the new PC market. While at first IBM was very successful with this isolation strategy, it found that transferring these new capabilities from the flexible mode to the rigid operating core was very difficult. IBM could not exploit these capabilities in its operating core because it lacked communication channels and common mental frames. Similarly, Eastman Kodak, Philips, and Xerox have had only modest success from their internal venturing and new business development programmes.

A more complicated form of separation involves the continuous splitting off of groups into separate organizations. Hewlett Packard, Johnson & Johnson, and

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Origin are examples of corporations that have developed a system of small, semi-autonomous units, and encourage entrepreneurs to pursue their ideas in new separate divisions, while the older, more established divisions provide continuity and stability (Mintzberg and Westley 1992). Overall, the organization appears to be in a perpetual stage of adaptation, never really rigid or planned as long as new units are being regularly spun off from the older ones. This process is best described as a regular cell fission, characterized by ongoing entrepreneurial revitalization. However, the downside to this cell structure is that such corporations may become overly divisionalized, and have problems with exploiting synergies across certain businesses. Because of continuous fission, these organizations lose their identity and become uncontrollable.

Approaches of spatial separation by location seem to assume that the parent organization can continue to operate in a planned fashion, while a flexible sub-unit of the organization is permitted to undertake pioneering (e.g. R&D) endeavours. Nonetheless, to the extent that the relevant environment for the organization as a whole has been transformed from moderate competition towards hypercompetition, the

crisis confronts the entire organization and requires a comprehensive response, not a partial one. Although the creation of a separate flexible unit accelerates progress in new areas of opportunity, it often leads to problems of morale, disruption, and reassimilation (MacMillan 1985). Consequently, exploiting the new opportunities can be slow and frustrating (cf. Burgelman 1983). Sometimes, a dramatic corporate-wide transformation may be necessary to temporarily explore new flexible capabilities. The limitations of spatial separation brings us to temporal separation as a way to survive in a Red Queen race of increasing competition.

31.7.3 Temporal Separation: The Oscillating Corporation

Whereas opposition and spatial separation consider exploration and exploitation occurring contemporaneously, temporal separation resolves the flexibility paradox over time. Periods of operational flexibility and tight organizational conditions (planned mode) are alternated with periods of strategic and structural flexibility and loose organizational conditions (flexible mode). In this perspective, the oscillating corporation is being sequentially manipulated into the flexible mode that stimulates the proposal of radical innovations and then back into the planned mode, which enhances adoption of incremental innovations (see Figure 31.13(c)). In periods of change, there are radical transformations across the whole organization.

In making the distinction between the two different phases, almost all recognize that during periods of preservation, a firm can develop some new operational capabilities alongside the exploitation of the specialized routines. This process

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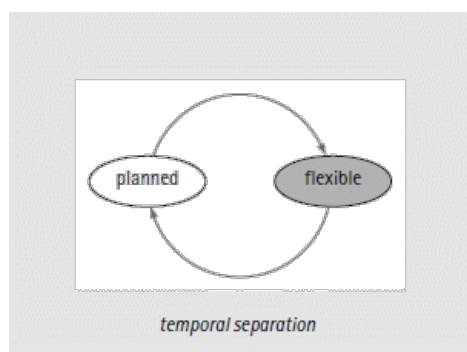


Fig. 31.13(c) The oscillating corporation

will be one of incremental development. However, there will be moments where change and preservation cannot co-exist; these will occur when the trajectory becomes competence-destroying (Tushman and Anderson 1986). At such moments, the organization cannot simultaneously exploit the old and develop the new, but has to 'choose' (perhaps unconsciously) between radical change and slow decline.

For small entrepreneurial firms, this dynamic alternation between flexible and planned organizational modes is part of their existence and competitive advantage. Their lack of tight commitments and relatively low sunk costs enable them to easily undertake radical change. For large corporations, complete transformations are much more complicated and nearly impossible. Nonetheless, Kanter (1994) used case histories from companies such as Kodak and Apple Computer to argue that US corporate giants can learn to change. In addition, using examples of mature UK firms (Richardson, Edwards, and Hotpoint), Baden-Fuller and Stopford (1994) observed that although triggers for change may have to come from many quarters and may take time to gather speed, the state of the whole organization can change from rigidity to flexibility. Case histories of large capital-intensive corporations such as DSM Chemicals, Shell, and Unilever that operate in cyclical industries also give us examples of firms that have been successful in managing alternate cycles of convergence and divergence. However, the periods of change for these companies were infrequent and relatively short as compared to periods of preservation. In Unilever, for instance, over the last twelve years there have been three periods of sharp upheaval followed by periods of comparative stability (cf. Maljers et al. 1996). By contrast, for corporations facing more hypercompetitive environments, the exploitation of capabilities becomes extremely difficult, while the periods of change are more frequent (cf. D'Aveni 1994). Instead of long, stable periods in which corporations can achieve sustainable competitive advantage, hypercompetition is increasingly characterized by short periods of advantage punctuated by frequent

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disruptions. As an illustration, Microsoft initiates a corporate redesign every eight months in order to remain competitive because in the software industry, the fully flexible company of today will be the rigid organization of tomorrow. In the process of frequent change,

however, oscillating corporations have to prevent themselves from 'overshooting' and becoming extremely rigid or chaotic.

31.7.4 Synthesis: The Balanced Corporation

The corporate responses to the flexibility paradox considered so far leave each of the two extremes basically intact. We must ask whether there are corporate forms that make a synthesis of flexible and planned organizational modes at the same time and at the same level possible (see Figure 31.13(d)).

Applying the insights of our strategic framework of flexibility, a balanced corporation can choose to compensate for its mechanistic structure by encouraging and promoting cultural heterogeneity. Consequently, the firm will experience a constructive tension between strategic change and structural preservation. If, on the other hand, an organization wants to compensate for the proven structural flexibility of its organic structure, it can seize upon the various devices used to solidify and extend a more homogeneous cultural pattern. Doing so will result in a tension between structural change and strategic preservation. Some large corporations such as 3M, HP, and Motorola have developed structures and cultures to achieve this balancing act (see Box 31.7). Against their minimal structures, they developed a strong culture dominated by corporate values like trust, respect for individuals, uncompromising integrity, and teamwork.

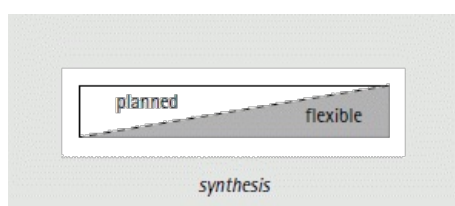


Fig. 31.13(d) The balanced corporation

Box 31.7 Balancing acts in 3M, HP, and Motorola

3M, for example, continually reassesses the barriers to flexibility that tend to develop over time. In order to overcome core rigidities, 3M has a formal goal of having 30 per cent of its sales derived from products that are new or have been substantially modified in the past four years. HP and Motorola are also pursuing structures and cultures that are more focused on building new competencies. Like 3M, these companies decentralize decision-making at the team and divisional level, and encourage spin-off projects. In addition, they constantly seek ways of making their current technology obsolete in order to push the innovation envelope of their assets. For example, 70 per cent of HP's sales is represented by products introduced or substantially modified in the past two years. Similarly, the development of the Motorola Integrated Radio Services is projected to effectively supplant Motorola's lucrative cellular handset business.

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Other corporate forms that come close to the balanced corporation are the hybrid forms. An example of such hybrid forms is the hypertext organization (Nonaka and Takeuchi 1995). Based on successful Japanese companies, the hypertext organization is a parallel structure that combines the steady-state flexibility of a hierarchical bureaucracy with the strategic flexibility of the flat, cross-functional task force. For instance, Sharp has a hierarchical business layer, but the company exploits its project-team layer, which is a completely independent, parallel structure when it comes to new-product development. Even more complicated and diffuse is Olivetti's platform corporation in which there is the coexistence of a multiplicity of organizational forms (Ciborra 1996): managers may operate within two or more organizational modes at the same time. The firm has much latitude for surprise and change, but retains the underlying bedrock of the collective cognitive schemas of participating managers.

Weick (1982), however, noted that compromise responses might be detrimental to the total flexibility of the corporation because they usually dominate other alternatives, since they are often acceptable to those with competing interests. Should these corporations have to cope with a changed environment, they might not be able to develop the right responses, since they have retained only composite alternatives. Superior flexible firms have to continually reflect on their exploration/exploitation ratio in order not to fail as a result of chronic forms of exploitation or exploration in the Red Queen race. We have showed various options to remain permanently flexible.

31.8 Strategic Flexibility in the New Landscape of the Twenty-First Century

In this chapter, we described successful and unsuccessful ways to win the Red Queen race of dynamic competition. As is clear from the empirical studies in this chapter, however, there will never be one best way to achieve flexibility in hypercompetitive environments. The

trajectories discussed indicate that firms can arrive at the

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flexible form through strategic focusing of the chaotic mode or through entrepreneurial revitalization of the planned mode. In addition, the flexible form itself can be achieved in different ways, thus suggesting equifinality. There are several equally good ways to match high variety and speed of managerial capabilities with an adequate organization design to resolve the constructive tension between developing capabilities and preserving stability within the organizational conditions.

The intention of this chapter is to develop theory on strategic flexibility and stimulate debate that goes beyond theory about traditional strategy in stable competition. Since a dramatic and far-reaching shift has occurred in the nature of competition in most industries, bureaucracy is no longer the appropriate form of organization and the emergence of new organizational forms can be expected (Lewin and Stephens 1993). We should consider what forms might characterize flexible organizations in the twenty-first century. In these new forms strategy means not reducing rivalry and proliferating routines, but rather learning from competitors and developing new capabilities. What will these future flexible firms that combine still higher levels of exploration and exploitation look like?

Many (cf. Clegg 1990; Kanter, Stein, and Jick 1992) have predicted that the future will be dominated by small flexible firms that will be predominantly service- or information-oriented and apply automated production and computer-based technology, informal and decentralized structures, and loose and tolerant cultures. Our framework and typology, however, suggest a much larger variety of effective flexible forms over which managers exercise some choice. Moreover, we think that planned or even rigid modes will still exist. They will, however, be viable only as long as they are part of network or dual corporations in which the forces of stability are counterbalanced by change. These units will be most effective when the organization needs to contain the risk of change and is not concerned with speedy reactions. Nonetheless, our typology seems to suggest that successful firms will generally move along a diagonal of increasing variety and speed of managerial capabilities together with higher levels of organizational responsiveness (see Figure 31.14). In this connection, the oscillating and balanced corporation, which allow the whole organization to adjust to competitive change more holistically and quickly, seem to be more promising. Without constant adaptation, however, the fully flexible firm of today will become the rigid firm of tomorrow. Firms must continuously increase the variety and speed of their flexible capabilities as well as their organizational responsiveness. Doing so requires innovation in managerial capabilities (flexible manufacturing, JIT, multi-sourcing, quick-response, product development capabilities) together with innovations in organization design (CAD/CAM, FMS, delayering, teaming, empowerment, corporate identity).

But how can firms reinvent themselves as they move along the flexibility trajectory? Unfortunately, most managers try only to copy existing successful forms rather than create new flexible forms. Consequently, their firms can at best be as good as their competitors, but never outperform them. The conceptual underpinnings of

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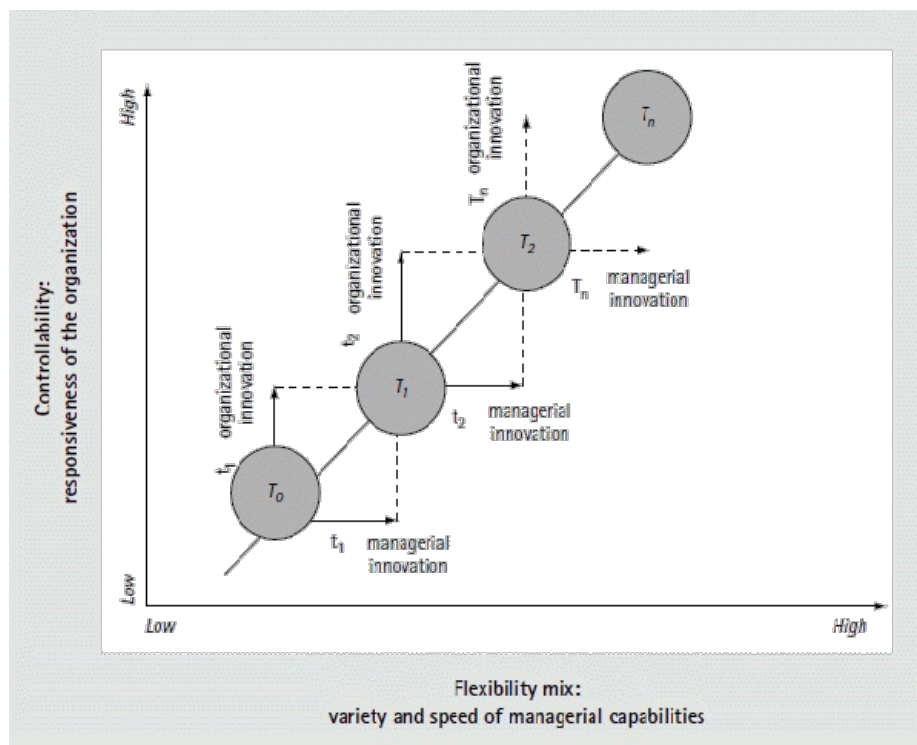


Fig. 31.14 The flexibility trajectory of successful firms of the twenty-first century

the viability of new flexible forms in situations of hypercompetition has not been discussed properly. Nevertheless, the strategic framework and typology of alternative flexible forms developed in this chapter may provide researchers a useful guide for the discovery of effective strategies and organizational forms in the new world of hypercompetition. Moreover, managers and practitioners can use our framework and typology proactively in order to build flexible firms of the future. The superior strategic flexibility of these new forms may open up new sources of competitive advantage. Competitive advantages of firms tend to be competed away quite quickly because many are players in a Red Queen race. Long-term superior performance is achieved not through static strategies aimed at providing sustainable competitive advantage, but by strategic flexibility in order to continuously develop and adapt new dynamic sources of advantage, and thus being the fastest runner in the Red Queen race.

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References

- Aaker, D. A., and Mascarenhas, B. (1984). 'The Need for Strategic Flexibility'. *Journal of Business Strategy*, 5/2 (Fall): 74–82. [Link](#)
- Adler, P. S. (1988). 'Managing Flexible Automation'. *California Management Review*, Spring: 34–56.
- Andrews, K. R. (1971). *The Concept of Corporate Strategy*. Homewood, Ill.: Dow Jones-Irwin.
- Ansoff, H. I. (1965). *Corporate Strategy*. New York: McGraw-Hill.
- (1978). 'The Changing Shape of the Strategic Problem', in D. E. Schendel and C. W. Hofer (eds.), *Strategic Management: A New View of Business Policy and Planning*. Boston/Toronto: Little, Brown & Company, 30–44.
- (1980). 'Strategic Issue Management'. *Strategic Management Journal*, 1: 131–48. [Link](#)
- Ashby, W. R. (1964). *An Introduction to Cybernetics*. London: Methuen.
- Baden-Fuller, C., and Stopford, J. M. (1994). *Rejuvenating the Mature Business*. Boston: Harvard Business School Press.
- and Volberda, H. W. (1997). 'Strategic Renewal: How Large Complex Organizations Prepare for the Future'. *International Studies of Management & Organization*, 27/2: 95–120.
- Bahrami, H. (1992). 'The Emerging Flexible Organization: Perspectives from Silicon Valley'. *California Management Review*, Summer: 33

–52.

Bartlett, C. A. (1993). 'Strategic Flexibility, Firm Organization, and Managerial Work in Dynamic Markets', in *Advances in Strategic Management*, Vol. 9. Greenwich, Conn.: JAI Press, 293–8.

——— and Ghoshal, S. (1988). 'Organizing for Worldwide Effectiveness'. *California Management Review*, Fall: 54–74.

——— (1993) 'Beyond the M-Form: Toward a Managerial Theory of the Firm'. *Strategic Management Journal*, 14/Special Issue: 23–46. [Link](#)

Bate, P. (1984). 'The Impact of Organizational Culture on Approaches to Organizational Problem-Solving'. *Organization Studies*, 5/1: 43–66. [Link](#)

Bettis, R. A., and Prahalad, C. K. (1995). 'The Dominant Logic: Retrospective and Extension'. *Strategic Management Journal*, 16/1: 5–14. [Link](#)

Bourgeois, L. J., III, and Brodwin, David, R. (1984). 'Strategic Implementation: Five Approaches to an Elusive Phenomenon'. *Strategic Management Journal*, 5: 241–64. [Link](#)

Bower, J. L. (1970). *Managing the Resource Allocation Process*. Boston: Harvard Business School Press.

Boynton, A. C., and Victor, B. (1991). 'Beyond Flexibility: Building and Managing the Dynamically Stable Organization'. *California Management Review*, Fall: 53–66.

Braybrooke, D., and Lindblom, C. E. (1970). *A Strategy of Decision: Policy Evaluation as a Social Process*. New York: Free Press.

Burgelman, R. A. (1983). 'A Process Model of Internal Corporate Venturing in the Diversified Major Firm'. *Administrative Science Quarterly*, 28/June: 223–44. [Link](#)

——— (1994). 'Fading Memories: A Process Theory of Strategic Business Exit in Dynamic Environments'. *Administrative Science Quarterly*, 39: 24–56. [Link](#)

Burns, T., and Stalker, G. M. (1961). *The Management of Innovation*. London: Tavistock.

Burton, R. M. (1984). 'Variety in Strategic Planning: An Alternative to the Problem-Solving Approach'. *Columbia Journal of Business*, Winter: 92–8.

end p.994

——— and Naylor, T. H. (1980). 'Economic Theory in Corporate Planning'. *Strategic Management Journal*, 1/3: 249–63. [Link](#)

Business Week (1996). 'The Fall of an American Icon'. 5 Feb.: 32–9.

Carroll, L. (1946). *Through the Looking Glass and What Alice Found There*. New York: Grosset & Dunlap.

Camerer, C., and Vepsäläinen, A. (1988). 'The Economic Efficiency of Corporate Culture'. *Strategic Management Journal*, 9: 115–26. [Link](#)

Chaffee, E. E. (1985). 'Three Modes of Strategy'. *Academy of Management Review*, 10/1: 89–98. [Link](#)

Chandler, A. D., Jr. (1962). *Strategy and Structure*. Cambridge, Mass.: MIT Press.

Ciborra, C. U. (1996). 'The Platform Organization: Recombining Strategies, Structures, and Surprises'. *Organization Science*, 7/2: 103–18. [Link](#)

Clegg, S. R. (1990). *Modern Organizations—Organization Studies in the Postmodern World*. London: Sage Publications.

Craig, T. (1996). 'The Japanese Beer Wars: Initiating and Responding to Hypercompetition in New Product Development'. *Organization Science*, 7/3: 302–21. [Link](#)

D'Aveni, R. (1994). *Hypercompetition: Managing the Dynamics of Strategic Maneuvering*. New York: Free Press.

Davidow, W. H., and Malone, M. S. (1992). *The Virtual Corporation*. New York: Harper Collins.

Fast, N. D. (1979). 'The Future of Industrial New Venture Departments'. *Industrial Marketing Management*, 8: 264–73. [Link](#)

Fortune (1994). 'GM's \$11,000,000,000 Turnaround', 17 Oct.: 30–42.

——— (1995). 'GM: Some Gain, Much Pain'. 20 May: 46–50.

——— (1996). '3M Fights Back', 5 Feb.: 42–7.

Financial Times (1998). 'Strategic Advantage', John Kay, 5 Aug.

Fredrickson, J. W. (1983). 'Strategic Process Research: Questions and Recommendations'. *Academy of Management Review*, 8/4: 565–75. [Link](#)

Galunic, D. C. and Eisenhardt, K. M. (1996). 'The Evolution of Intracorporate Domains: Divisional Charter Losses in High-Technology, Multi-divisional Corporations'. *Organization Science*, 7/3: 255–82. [Link](#)

Grant, R. (1996). 'Prospering in Dynamically-Competitive Environments: Organizational Capability as Knowledge Integration'. *Organization Science*, 7/4: 375–87. [Link](#)

Guth, W. D. and Ginsburg, A. (1990). 'Corporate Entrepreneurship'. *Strategic Management Journal*, 11: 5–15.

Hamel, G. (1996). 'Strategy as Revolution'. *Harvard Business Review*, July–Aug.: 69–82.

——— and Prahalad, C. K. (1994). *Competing for the Future*. Boston: Harvard Business School Press.

Handy, C. (1995). *The Age of Unreason*. London: Arrow Business Books.

Hanssen-Bauer, J., and Snow, C. (1996). 'Responding to Hypercompetition: The Structure and Processes of a Regional Learning Network Organization'. *Organization Science*, 7 (4): 413–27. [Link](#)

Harrigan, K. R. (1985). *Strategic Flexibility*. Lexington, Mass.: Lexington Books.

Hofstede, G. (1980). 'Motivation, Leadership and Organization: Do American Theories Apply Abroad?' *Organizational Dynamics*, Summer: 42–63. [Link](#)

Howard, R. (1992). 'The CEO as Organizational Architect: An Interview with Xerox's Paul Allaire'. *Harvard Business Review*, 70/5: 106–21.

end p.995

Itami, H. (1987). *Mobilizing Invisible Assets*. Cambridge, Mass.: Harvard University Press.

Ittner, C. D., and Kogut, B. (1995). 'How Control Systems Can Support Organizational Flexibility', in E. Bowman and B. Kogut (eds.), *Redesigning The Firm*. New York: Oxford University Press, 155–80.

Johnson, G. (1987). *Strategic Change and the Management Process*. Oxford: Basil Blackwell.

——— (1988). 'Rethinking Incrementalism'. *Strategic Management Journal*, 9/Sept: 75–91. [Link](#)

Kanter, R. M. (1983). *The Change Masters*. New York: Simon & Schuster.

——— (1988). 'When a Thousand Flowers Bloom: Structural, Collective, and Social Conditions for Innovation in Organization'. in B. M. Staw and L. L. Cummings (eds.), *Research in Organizational Behavior*, Vol. 10. Greenwich, Conn.: JAI Press, 169–211.

——— (1994). *When Giants Learn to Dance: Mastering the Challenge of Strategy, Management and Careers in the 1990s*. London: Routledge (Reprint).

——— Stein, B. A., and Jick, T. D. (1992). *The Challenge of Organizational Change: How Companies Experience It and Leaders Guide It*. New York: Free Press.

Kauffman, S. A. (1995). 'Technology and Evolution: Escaping the Red Queen Effect'. *McKinsey Quarterly*, No. 1: 118–29.

Krijnen, H. G. (1979). 'The Flexible Firm'. *Long Range Planning*, 12/Apr.: 63–75. [Link](#)

Learned, E. P., Christensen, C. R., Andrews, K. R., and Guth, W. (1969). *Business Policy: Text and Cases*. Homewood, Ill: R. Irwin.

Leonard-Barton, D. (1992). 'Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development'. *Strategic Management Journal*, 13/Special Issue: 111–25. [Link](#)

Levinthal, D. A., and March, J. G. (1993). 'The Myopia of Learning'. *Strategic Management Journal*, 14/ Special Issue: 95–112. [Link](#)

Levitt, B., and March, J. G. (1988). 'Organizational Learning'. in W. R. Scott (ed.). *Annual Review of Sociology*, Vol. 14. Palo Alto, Calif: Annual Reviews, 319–40.

Lewin, A. Y., and Stephens, C. U. (1993). 'Designing Postindustrial Organizations: Combining Theory and Practice', in G. P. Huber and W. H. Glick (eds.), *Organizational Change and Redesign*. New York: Oxford University Press, 393–409.

——— and Volberda, H. W. (1999). 'Prolegomena on Coevolution: A Framework for Research on Strategy and New Organizational Forms'. *Organization Science*, 10/5: 569–82.

Lindblom, C. E. (1959). 'The Science of "Muddling Through"'. *Public Administration Review*, 19/ Spring: 79–88. [Link](#)

Linneman, R. E., and Chandran, R. (1981). 'Contingency Planning'. *Managerial Planning*, Jan./Feb.

Lorenzoni, G., and Baden-Fuller, C. (1995). 'Creating a Strategic Center to Manage a Web of Partners'. *California Management Review*, 37/3: 146–63.

MacMillan, I. G. (1985). 'Progress in Research on Corporate Venturing: 1985'. Working Paper, NY University, Center for Entrepreneurial Studies.

Maljers, F., Baden-Fuller, C, and Van den Bosch, F. (1996). 'Maintaining Strategic Momentum: The CEO's Agenda'. *European Management Journal*, 14/6: 555–61. [Link](#)

March, J. G. (1991). 'Exploration and Exploitation in Organizational Learning'. *Organization Science*, 2: 71–87. [Link](#)

——— and Simon, H. (1958). *Organizations*. New York: Wiley.

Mascarenhas, B. (1982). 'Coping with Uncertainty in International Business'. *Journal of International Business Studies*, 13/2: 87–98. [Link](#)

Miles, R. E., and Snow, C. C. (1986). 'Organizations: New Concepts for New Forms'. *California Management Review*, 28/3 (Spring): 62–73.

end p.996

——— Coleman, H. J., Jr., and Creed, W. E. D. (1995). 'Keys to Success in Corporate Redesign'. *California Management Review*, 37/3: 128–45.

Miller, D., and Chen, M. (1994). 'Sources and Consequences of Competitive Inertia: A Study of the U.S. Airline Industry'. *Administrative Science Quarterly*, 39: 1–23. [Link](#)

——— and Friesen, P. (1980). 'Archetypes of Organizational Transition'. *Administrative Science Quarterly*, 25/2: 268–300. [Link](#)

Mintzberg, H. (1973). 'Strategy-Making in Three Modes'. *California Management Review*, 16/2 (Winter): 44–53.

——— (1978). 'Patterns in Strategy Formation'. *Management Science*, 24: 934–48. [Link](#)

——— (1994). *The Rise and Fall of Strategic Planning*. New York: Free Press.

——— and Waters, J. A. (1985). 'Of Strategies, Deliberate and Emergent'. *Strategic Management Journal*, 6: 257–72. [Link](#)

——— and Westley, F. (1992). 'Cycles of Organizational Change'. *Strategic Management Journal*, 13: 39–59. [Link](#)

Nelson, R. R., and Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press.

Nonaka, I., and Takeuchi, H. (1995). *The Knowledge-Creating Company*. New York: Oxford University Press.

Ouchi, W G. (1981). *Theory Z: How American Business Can Meet the Japanese Challenge*. Reading, Mass.: Addison-Wesley.

Pascale, R. T. (1984). 'Perspectives on Strategy: The Real Story behind Honda's Success'. *California Management Review*, 26/3: 47–86.

——— (1990). *Managing on the Edge*. London: Penguin Books.

Pennings, J. M. (1985). 'Introduction: On the Nature and Theory of Strategic Decisions', in J. Pennings (ed.), *Organizational Strategy and Change*. San Francisco: Jossey Bass, 1–34.

Penrose, E. T. (1959). *The Theory of Growth of the Firm*. New York: Wiley.

Perrow, C. (1986). *Complex Organizations: A Critical Essay*. (3rd edn) New York: Random House.

Peters, T. J., and Waterman, R. H., Jr. (1982). *In Search of Excellence*. New York: Warner Books.

Poole, M. S., and Van de Ven, A. H. (1989). 'Using Paradox to Build Management and Organization Theories'. *Academy of Management Review*, 14/4: 562–78. [Link](#)

Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.

Porter, M. E. ——— (1991). 'Towards a Dynamic Theory of Strategy'. *Strategic Management Journal*, 12: 95–117. [Link](#)

Porter, M. E. ——— (1996). 'What is Strategy?'. *Harvard Business Review*, Nov.–Dec: 61–78.

Quinn, J. B. (1980). *Strategies for Change: Logical Incrementalism*. Homewood, Ill: Richard D. Irwin.

——— (1985). 'Managing Innovation: Controlled Chaos'. *Harvard Business Review*, 63/3: 73–84.

——— (1992). *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry*. New York: Free Press.

Richardson, J. (1996). 'Vertical Integration and Rapid Response in Fashion Apparel'. *Organization Science*, 7/4: 400–12. [Link](#)

Sanchez, R. (1993). 'Strategic Flexibility, Firm Organization, and Managerial Work in Dynamic Markets', in *Advances in Strategic Management*, Vol. 9. Greenwich, Conn.: JAI Press, 251–91.

end p.997

——— (1995). 'Strategic Flexibility in Product Competition'. *Strategic Management Journal*, 16/Special Issue: 135–60. [Link](#)

Scott, B. W. (1965). *Long-Range Planning in American Industry*. New York: American Management Association.

Smircich, L., and Stubbart, C. (1985). 'Strategic Management in an Enacted World'. *Academy of Management Review*, 10/4: 724–36. [Link](#)

Smith, A. D., and Zeithaml, C. (1996). 'Garbage Cans and Advancing Hypercompetition: The Creation and Exploitation of New Capabilities and Strategic Flexibility in Two Regional Bell Operating Companies'. *Organization Science*, 7/4: 388–99. [Link](#)

Starbuck, W. H. (1983). 'Organizations as Action Generators'. *American Sociological Review*, 48: 91–102. [Link](#)

Stevenson, H. H., and Gumpert, D. E. (1985). 'The Heart of Entrepreneurship'. *Harvard Business Review*, 64/Mar.–Apr.: 85–94.

Stinchcombe, A. L. (1965). 'Social Structure and Organizations'. in J. G. March (ed.), *Handbook of Organizations*. Chicago: Rand McNally, 142–93.

Teece, D. J., Pisano, G., and Shuen, A. (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18: 509–33. [Link](#)

Thompson, J. D. (1967). *Organizations in Action*. New York: McGraw-Hill Book Company.

Tichy, N. (1983). *Managing Strategic Change*. New York: Wiley & Sons.

——— and Sherman, S. (1994). *Control Your Destiny or Someone Else Will*. New York: Harper Business.

Tushman, M. L., and Anderson, P. (1986). 'Technological Discontinuities and Organizational Environments'. *Administrative Science Quarterly*, 31: 439–65. [Link](#)

Utterback, J. M., and Abernathy, W. J. (1975). 'A Dynamic Model of Process and Product Innovation'. *Omega*, 3/6: 639–56. [Link](#)

Van Cauwenberg, A., and Cool, K. (1982). 'Strategic Management in a New Framework'. *Strategic Management Journal*, 3: 245–64.



Volberda, H. W. (1996). 'Toward the Flexible Form: How to Remain Vital in Hypercompetitive Environments'. *Organization Science*, 7/4: 359–74.

——— (1997). 'Building Flexible Organizations for Fast-moving Markets'. *Long Range Planning*, 30/2 (Apr.): 169–83.

——— (1998). *Building the Flexible Firm: How to Remain Competitive*. Oxford: Oxford University Press.

——— and Baden-Fuller, C. (1998). 'Strategic Renewal and Competence Building: Four Dynamic Mechanisms', in G. Hamel, C. K. Prahalad, H. Thomas, and D. O'Neal (eds.), *Strategic Flexibility: Managing in a Turbulent Environment*. Chichester: Wiley, 371–89.

——— and Elfring, T. (2001). *Rethinking Strategy*. London: Sage.

Weick, K. E. (1979). *The Social Psychology of Organizations* (2nd edn). Reading, Mass.: Addison-Wesley.

——— (1982). 'Management of Organizational Change among Loosely Coupled Elements', in P. S. Goodman and Associates (eds.), *Change in Organizations: New Perspectives in Theory Research, and Practice*. San Francisco: Jossey-Bass, 375–408.

Wernerfelt, B. (1984). 'A Resource-Based View of the Firm'. *Strategic Management Journal*, 5: 171–80.

Wrapp, H. E. (1967). 'Good Managers Don't Make Policy Decisions'. *Harvard Business Review*, 45/5 (Sept.–Oct): 91–9.

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