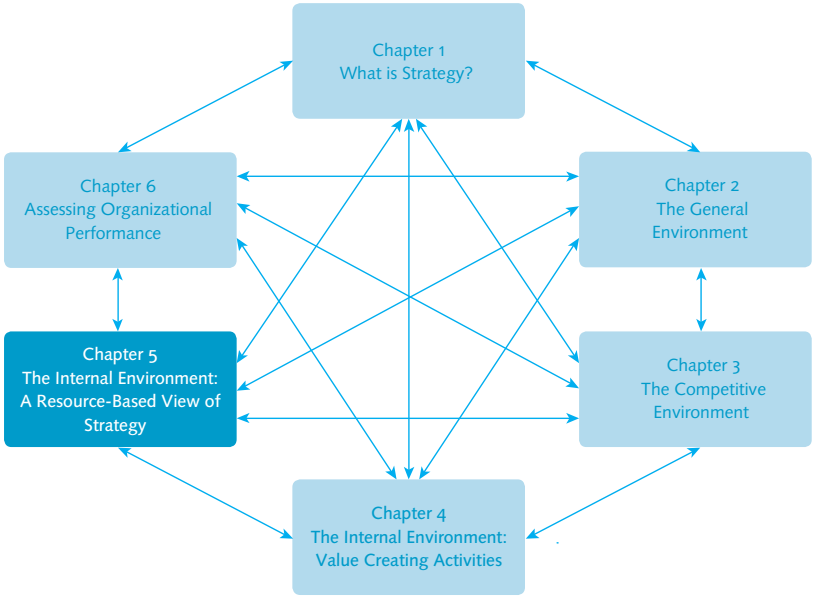
5 The Internal Environment: A Resource-Based View of Strategy



Learning Objectives

After completing this chapter you should be able to:

- Discuss the resource-based view of strategy
- Explain the role of resources, competencies and capabilities in helping an organization achieve a sustainable competitive advantage
- Explain how the resource-based view can guide strategy
- Evaluate the importance of knowledge management within organizations

5.1 Introduction

The previous chapter was devoted to an analysis of the internal environment and how the organization might usefully analyse its value creating activities. In order to help assess the importance of the firm's internal environment we placed our discussion in the context of the factors which account for an organization's performance. In **Chapter 3** we saw that the answer to the question 'What drives an organization's performance?' was rooted in an understanding of an organization's markets and industry. This 'positioning approach' accepts the importance of an organization's resources but argues that in formulating strategy an analysis of the competitive environment is a more appropriate starting point.

What determines an organization's performance will continue to be our backdrop as we evaluate an alternative approach to this question. We have already noted that a criticism made about the positioning approach is that it fails to answer this question adequately. In this chapter we will explore a radically different perspective which suggests that relative firm performance, and therefore profitability, is determined by an organization's resources and competencies. This has been termed the resource-based view of the firm.

- In Section 5.2 we continue the debate on differential firm performance by introducing the resource-based view of strategic management. We evaluate the role of resources, core competencies, and distinctive capabilities in helping the organization to achieve a competitive advantage.
- Section 5.3 considers some of the attributes an organization's resources must possess in order for them to provide it with a source of a sustainable competitive advantage. We also briefly discuss the *make or buy* decisions facing organizations.
- In Section 5.4 we discuss some of the criticisms of the resource-based view.
- The chapter ends in Section 5.5 with a discussion of the importance of knowledge management and how tacit knowledge might provide a competitive edge in the knowledge economy.

5.2 The Resource-Based View of Strategy

The resource-based view of strategy has a long antecedent, with links stretching back to Edith Penrose (1959). However, it is more commonly associated with the work of Prahalad and Hamel (1990), Rumelt (1991), Barney (1991), Grant (1991), and Peteraf (1993). The resource-based view also deals with the competitive environment facing the organization but takes an 'inside-out' approach, i.e. its starting point is the organization's *internal* environment. As such, it is often seen as an alternative perspective to Porter's (1980) five forces framework, examined in **Chapter 3**, which takes the industry structure (outside-in) as its starting point.

RESOURCE-BASED VIEW

emphasizes the internal capabilities of the organization in formulating strategy to achieve a sustainable competitive advantage in its markets and industries

The **resource-based view** emphasizes the internal capabilities of the organization in formulating strategy to achieve a sustainable competitive advantage in its markets and industries. If we see the organization as made of resources and capabilities which can be configured (and reconfigured) to provide it with competitive advantage, then its perspective does indeed become inside-out. In other words, its internal capabilities determine the strategic choices it makes in competing in its external environment. In some cases an organization's capabilities may actually allow it to create new markets and add value for the consumer, such as Apple's i-Pod and Toyota's hybrid cars. Clearly, where an organization's capabilities are seen to be paramount in the creation of competitive advantage it will pay attention to the configuration of its value chain activities. This is because it will need to identify the capabilities within its value chain activities which provide it with competitive advantage.

For example, Toyota's much admired manufacturing system manages *inbound logistics* in the form of excellent material and inventory control systems. This ensures that inventory levels are sufficient to meet customer demand by having parts delivered prior to their assembly. If we look at other primary activities in the value chain, such as *operations*, we find automated and efficient plants with embedded quality control systems. This is backed by *marketing and sales* through advertising and dealership networks, and *service* through the use of guarantees and warranties. Toyota's value chain activities, its linkages across them, and its linkages with the value chain of its suppliers are configured in such a way that they provide the Japanese competitor with a core competence or distinctive capability. It is this capability which provides it with competitive advantage and which its competitors have found difficult to match. Toyota is also able to appropriate the added value that is derived from these activities. For instance, Toyota makes more profit than the three largest automobile companies in the USA combined.

If firms in an industry face similar industry conditions we might expect, other things being equal, these firms to exhibit some degree of similarity with respect to profitability. Yet if we compare the profitability of the UK supermarket retailer Tesco with its arch-rival Sainsbury's, we see a great divergence in profitability between firms that compete in the same industry. Porter (1980) argues that it is the industry structure within which organizations compete and how they position themselves against that structure which determines how profitable individual firms will be. In contrast, the resource-based view of strategy points not to industry structure but to the unique cluster of resources and capabilities that each organization possesses (Collis and Montgomery 1995, Stalk *et al*. 1992). Therefore, for proponents of the resource-based school, the answer to why firms within the same industry experience different levels of performance is to be found by looking inside the organization.

As is so often the case, the differences between competing perspectives can be overdone. For example, Amit and Schoemaker (1993) argue that the resource-based view can be seen as a complement to the positioning school. Hamel and Prahalad (1993) concede that Porter's approach which embodies the notion of *strategic fit*, matching an organization's resources to the needs of the external environment, is not so much wrong but more what they refer to as *unbalanced*. For many managers the concept of strategy implies pursuing opportunities that fit the company's resources. Hamel and Prahalad suggest that this approach is not wrong but tends to obscure an approach in which *strategic stretch* supplements strategic fit. They argue that being strategic means creating a chasm between ambition and resources. In other words, an organization with a relatively small amount of resources but with big ambitions can leverage their resources to achieve a greater output for its smaller inputs.

We should keep in mind that both the positioning school (see also Porter 1996) and the resource-based view have its relative merits and its criticisms.

5.2.1 Resources

The resource-based view of competition draws upon the resources and capabilities that reside within an organization, or that an organization might want to develop, in order to achieve a sustainable competitive advantage. **Resources** may be thought of as inputs that enable an organization to carry out its activities. Where organizations in the same industry have similar resources but differing performance we might deduce that they vary in the extent to which they utilize their resources. Resources in and of themselves confer no value to organizations. It is only when they are put to some productive use that value follows. Resources can be categorized as tangible and intangible.

RESOURCES

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Tangible Resources

TANGIBLE RESOURCES

refer to the physical assets that an organization possesses and include plant and machinery, finance and human capital.

Tangible resources refer to the physical assets that an organization possesses and can be categorized as physical resources, financial resources, and human resources. Physical resources include such things as the current state of buildings, machinery, materials, and productive capacity. To add value these physical resources must be capable of responding flexibly to changes in the marketplace. Clearly, organizations with the most up to date technology and processes which possess the knowledge to exploit their potential will be at an advantage. The extent to which an organization can achieve an acceptable return on its capital employed will determine the extent to which it can attract outside capital or financial resources. This will be linked to expectations about its future growth. Its financial resources will include its cash balances, debtors and creditors, and gearing (debt-to-equity ratio).

The total workforce employed and their productivity, as measured by criteria such as profit or sales per employee, form a tangible human resource. In the **knowledge-based economy** the tacit knowledge and specialist skills of many employees form an intangible resource that it is difficult for competitors to imitate. It is interesting to note that it is tacit knowledge that can provide developed nations with a comparative advantage over low-cost manufacturing economies such as China and India.

KNOWLEDGE-BASED ECONOMY

the tacit knowledge and specialist skills of employees which constitute an intangible resource that is difficult for competitors to imitate

Intangible Resources

INTANGIBLE RESOURCES

may be embedded in routines and practices that have developed over time within the organization. They include an organization's reputation, its culture, its knowledge, and its brands

Intangible resources comprise intellectual/technological resources and reputation. Technological resources include an organization's ability to innovate and the speed with which innovation occurs. Intellectual resources include patents and copyrights which themselves may derive from the organization's technological resources. For example, an intangible resource for the manufacturing company, Dyson, is the creative innovation of its founder, James Dyson, which competitors have been unable to successfully imitate (see Case Study: Knowledge Management on p. 145). Organizations with valuable tacit knowledge built up through their culture, processes, and employees possess an intangible resource which cannot readily be transferred.

The reputation or 'goodwill' of an organization is increasingly recognized as a valuable intangible asset which can easily be damaged by ill-thought-out strategies and marketing campaigns. Some organizations, such as Benetton, have made a point of courting debate with their controversial advertising campaigns. In their case it seems to draw supporters and detractors in equal measure while generating useful free publicity. Johnson & Johnson's response to malicious tampering with their Tylenol product (see **Chapter 1**) ensures that it consistently remains top of organizations ranked according to their reputation.[1]

5.2.2 Competencies

Whilst the existence of resources is important, resources *per se* do not confer any benefit on an organization. It is the efficient configuration of resources that provides an organization with **competencies**. A competence is the attributes that firms require in order to be able to compete in the marketplace. In this respect, all firms possess competencies. It is a prerequisite for competing within an industry. However, competencies in and of themselves do not confer any competitive advantage for the organization. It may be useful to think of competencies as deriving from the bundle of resources that a firm possesses. For example, in order to be able to compete in the automobile industry organizations must possess knowledge about design and engine and body manufacture. Without this base knowledge, firms would simply be unable to compete effectively in that industry irrespective of their resources.

COMPETENCIES

can be defined as the attributes that firms require in order to be able to compete in the marketplace

There is a degree of confusion with the plethora of terms that circulate around the resource-based view of strategy. We will try to use common terms with the proviso that even here these may mean different things to different authors. For example, some advocates of the resource-based view use the term core competencies to refer to activities in which the firm can achieve a sustainable competitive advantage. Others use the term **distinctive capabilities** to make the same point.

DISTINCTIVE CAPABILITIES

are important in providing an organization with competitive advantage. They derive from three areas: an organization's *architecture*, *innovation*, and *reputation*

5.2.3 Core Competencies

Prahalad and Hamel (1990) argue that the critical task of management is to create an organization capable of creating products which customers need but have not yet even imagined. To achieve this management must successfully operate across organizational boundaries rather than focus on discrete individual strategic business units (SBUs). Core competencies derive from the collective learning of individual members within an organization and their ability to work across organizational boundaries. Prahalad and Hamel (1990, p. 82) argue:

> *The skills that together constitute core competence must coalesce around individuals whose efforts are not so narrowly focused that they cannot recognize the opportunities for blending their functional expertise with those of others in new and interesting ways.*

Thus a **core competence or strategic capability** can be thought of as a cluster of attributes that an organization possesses which in turn allows it to achieve competitive advantage. It may simply be that the organization has configured its collection of resources in such a way that allows it to compete more successfully. Dell and Benetton clothing are classic examples of firms that have achieved core competence in

CORE COMPETENCE OR STRATEGIC CAPABILITY

a cluster of attributes that an organization possesses which in turn allows it to achieve competitive advantage

the way they configure their respective value chains. Many organizations have tried to copy Michael Dell's example but found his direct-sales model less easy to imitate than might be first thought. (See Case Study: Dell.)

Similarly, the Japanese motor manufacturer Toyota has achieved a core competence in the production of petrol-and-electric hybrid cars (see Strategy Focus: Toyota's Core Competencies). This in no small measure results from their **first-mover advantages**. This refers to organizations which benefit from the learning and experience they acquire as a result of being first in the marketplace. Other motor manufacturers are placed in the unenviable position of playing 'catch-up'. Prahalad and Hamel (1990) point out that many major corporations have had the potential to build up core competencies, but senior management lacked the vision to see the company other than as a portfolio of discrete businesses. This is what Prahalad and Hamel refer to as the *tyranny of the SBU*. They provide three tests that can be applied to core competencies in an organization.

FIRST-MOVER ADVANTAGES

refers to organizations which benefit from the learning and experience they acquire as a result of being first in the marketplace

1. A core competence should provide access to a wide variety of markets. For example, Honda's capabilities in engine design and production have enabled it to leverage its core competencies to compete in markets such as cars, lawnmowers, and powerboats.

2. A core competence should make a significant contribution to the perceived customer benefits of the end products. For example, BMW has distinctive capabilities in engineering which allow it to produce high-quality cars that sell at a premium.

3. A core competence should be difficult for competitors to imitate. For a core competence to have any lasting value to the organization the competitive advantage that derives from its use must be sustainable. In order for that condition to hold, the core competence must be difficult for competitors to imitate. This is the case in the USA with Southwest Airlines; competitors have found that having similar resources to the airline has not enabled them to deconstruct what makes the airline so successful. In the UK, the competitors of the supermarket retailer Tesco have been unable to replicate its success despite having similar resources.

A core competence is enhanced as it is applied and shared across the organization. For Prahalad and Hamel, competencies are the glue that binds businesses together and spur new business development. For example, Toyota's core competencies derive from its ability to blend core competencies across the whole organization. Nonetheless, competencies still need to be protected if the organization is to appropriate the rewards that deride from their use.

STRATEGY FOCUS

Toyota's Core Competencies

The Prius, an electric-and-petrol hybrid car which represents a core competence for Toyota.

It is going awfully fast, and they are not sure where it is leading them, but Toyota's rivals reckon they have no choice but to give chase. The Japanese carmaker is so pleased with the success of its Prius, an electric-and-petrol hybrid car that has sold well in America, that it is pressing ahead with plans to put hybrid engines in a range of other cars and sport-utility vehicles (SUVs). Competitors, ranging from America's General Motors to Germany's BMW and DaimlerChrysler, are scrambling to roll out hybrids of their own. Ford has already announced that it could increase production of hybrid cars tenfold by 2010. Adding a hybrid engine costs thousands of dollars; this puts off many consumers. But Toyota is pressing ahead anyway, confident that, with practice, it can master fuel-saving technologies more quickly than rivals. Since it launched the new Prius in America in 2003, Toyota has sold over 150 000.

The Prius is an odd-looking machine. Some buyers who would never go near a Prius may choose an existing SUV or luxury car over a rival model if it comes with a fuel-saving and eco-friendly hybrid option that is partly subsidised by the maker. Toyota began offering hybrid versions of its Highlander and Lexus SUVs earlier this year. Although Americans love their oversized SUVs, they are heavy machines that guzzle petrol. So buying a hybrid version might ease some of the guilt, even if the savings at the pump do not end up offsetting the higher price. Toyota will also put a hybrid engine into one of its Lexus luxury sedans, and Honda will do the same for its Acura. That will give wealthy greens a chance to tout their eco-friendly credentials without sacrificing style. Honda has just launched a new hybrid version of its popular

Civic in America, and Toyota will begin selling hybrid versions of its Camry sedan in 2007. Overall, Toyota is racing towards its target of selling 1m hybrid vehicles worldwide by 2010.

That is the last thing that its American, European, and Korean rivals want to hear. Many of their executives complain that hybrids are unprofitable and over-hyped. Rivals are upset with Toyota, for setting the agenda so deftly; with themselves, for failing to keep pace; and with consumers, for having the temerity to buy what they do not want to sell. The European carmakers have trumpeted diesel technology as a fuel-efficient and eco-friendly alternative. Toyota also sees merit in diesels—it opened a new diesel-engine plant in Poland last week—but it has no intention of making life easy for its rivals by taking its foot off the hybrid accelerator. So everyone else is now playing catch-up. Toyota may leave them in the dust anyway. While its rivals struggle to integrate hybrid engines into their vehicles, the Japanese giant hopes soon to cut the extra costs of those engines in half.

Source: 'Battery assault' *Economist*, 22 September 2005

5.2.4 Distinctive Capabilities

Kay (1993) argues it is the distinctive capabilities of an organization's resources that are important in providing it with competitive advantage. However, an organization's capabilities are only distinctive when they emanate from a characteristic which other firms do not have. Furthermore, possessing a distinctive characteristic is a necessary but not sufficient criteria for success; it must also be *sustainable* and *appropriable*. For a distinctive capability to be sustainable it needs to persist over time. For a distinctive capability to be appropriable it needs to benefit primarily the organization which holds it rather than its employees, its customers, or its competitors. These distinctive capabilities derive from three areas: *architecture*, *reputation*, and *innovation*. These in turn are linked to relationships between an organization and its stakeholders: its employees, customers, shareholders, and suppliers, as well as a group of collaborating firms to which it may network. It is these relationships which allow an organization's resources to provide it with distinctive capabilities through the conduit of its architecture, reputation, and innovation.

An organization's architecture comprises the system of relational contracts which exist inside and outside the organization. We can differentiate between internal architecture, which refers to an organization's relationships with its employees, and between employees, and external architecture, which refers to its relationships with its customers and suppliers. In addition, an organization may engage in relationships with other firms working in related activities; this form of architecture is referred to as networks. There is a myth about great leaders of organizations which detracts from the reality of organizational behaviour. Organizations depend far less on individual

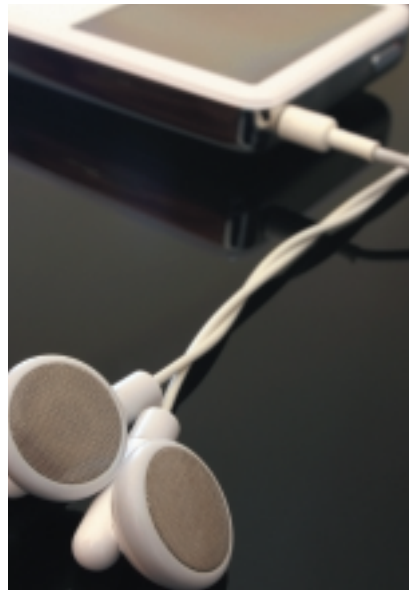
leaders and groups than they do on their established structures, dominant styles, and organizational routines—what might be termed their existing ways of working. It is these organizational routines that have developed over time and are continually used in changing competitive conditions that allow the organization to get the best out of their ordinary employees. As Kay (1993, p. 69) states, 'Architecture does not create extraordinary organizations by collecting extraordinary people. It does so by enabling very ordinary people to perform in extraordinary ways'.

However, because a distinctive architecture is based upon the output of all employees rather than a few individuals, it allows the added value created to be more readily appropriated by the organization. In the same way, for a distinctive architecture to be sustainable the relational contracts that an organization enters into must be difficult for its competitors to identify and imitate. The relationships will inevitably be implicit, complex, and subtle, based in and around the organization. This lack of formalization inhibits imitation and ensures that architecture remains a source of competitive advantage. Architecture, then, refers to the ability of the organization to create organizational knowledge which is more than just the sum of individual employees. It includes an organization's ability to respond effectively to changes taking place in its external environment, as well as its exchange of information both within and outside the company.

Reputation as a source of distinctive capability is particularly important in those markets where consumers can only ascertain the quality of a product from their long-term experience. An example would include the use of a firm of architects. An organization's reputation is built up through its reliable relationships, which may have taken considerable time to nurture and develop. However, once this element of trust is achieved, it can provide the organization with a distinctive capability. A reputation for providing good-quality products and services endows an organization with competitive advantage which can be used to secure repeat business and charge premium prices. In addition, such a reputation can be leveraged when entering related markets, as witnessed by Sony across the consumer electronics industry. Indeed, reputation can be used to help facilitate a more successful entry into unrelated markets, as seen with Virgin and the Easy group. In independent tests,[2] Johnson & Johnson scores higher than any other organization on reputation, which in no small measure results from their insistence that managers conduct themselves responsibly and their credo of putting the customer first.

An organization's ability to innovate successfully is also a source of distinctive capability which is sustainable and appropriable. For example, it may produce innovative products such as Apple with its *i-Tunes* and *i-Pod*. In a survey of senior executives around the world to find the 50 most innovative companies (BusinessWeek 2007a), Apple came top for the third year running. Apple's unrivalled innovation in product design and functionality is proving a hard act for competitors to follow. It remains at the forefront of the digital media with its iPod portable music and video players and

iTunes online stores. Rather than sit back complacently, Apple entered the mobile phone market in 2007 with the introduction of its iPhone. This constant innovation and product development keeps competitors guessing about which products Apple will bring out next and provides a source of sustainable competitive advantage as competitors struggle to imitate their success (see Strategy Focus: Steve Jobs).



Apple's ability to innovate with products such as the i-Pod has provided a route for competitive advantage.

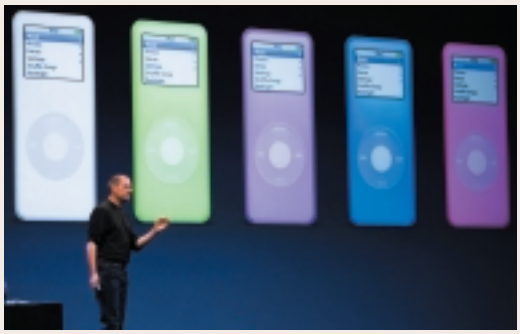
In many respects the competitive advantage that appears to emanate from innovation may be seen to derive from an organization's architecture. An organization may develop innovative processes which are embedded within the routines of the organization and therefore difficult for competitors to copy. By seeking patents and copyrights, organizations can protect innovative products and ensure that they appropriate the value deriving from their use. The use of patents and copyrights may not suit hypercompetitive markets, as we saw in **Chapter 3**. In such a marketplace, D'Aveni (1999) argues for continuous new product development which allows you to stay one step ahead of competitors. The deliberate cannibalization of a successful product by its successor ensures that the firm is able to appropriate the rewards from its innovations.

The concern for innovation is not limited to organizations. The US Department of Commerce formed an advisory committee in 2007 to look at how best to measure innovation initiatives. It is made up of individuals who include Steve Ballmer of Microsoft, IBM's Sam Palmisano, an entrepreneur, and members of the academic community including a professor of economics at Harvard. The 15-strong panel is intended to represent the diversity of the US economy. Innovation is defined by the panel as the design, invention, development, and/or implementation of new or altered products, services, processes, systems, organizational structures, or business

models for the purpose of creating new value for customers and financial returns for the firm (BusinessWeek 2007b). The ultimate aim of the advisory is not simply to develop new metrics for innovation but to try to ensure that US businesses remain competitive in a global environment.

STRATEGY FOCUS

Steve Jobs—Innovation



Steve Jobs launching the iPod nano.

One morning, about a year ago, a doctor told Steve Jobs that a cancerous tumour in his pancreas would kill him within months, and that it was time to start saying his goodbyes. Later that night, an endoscopy revealed that the tumour could be cut out. But for one day Steve Jobs, the boss of Apple Computer, as well as Pixar, the world's most successful animation studio, stared death in the face. The experience seems to have invigorated him. Last week he announced a new mobile phone from Motorola that has iTunes, Apple's music software, pre-installed; and the 'iPod nano', a new digital music-player that is thinner than a pencil, but still holds 1000 songs. His hold on downloaded and portable music now seems overwhelming. iTunes sells 2m songs a day and has a world market share of 82 per cent—he reckons that it is the world's second-largest Internet store, behind only Amazon. And the iPod has a market share of 74 per cent, with 22m sold. For a man who helped launch the personal-computer era in 1976 with the Apple I, but then had to watch Microsoft's Bill Gates walk away with, in effect, the monopoly on PC operating systems (Apple's market share in computers today is less than 3 per cent), this must be some vindication.

The interesting event occurred when he was 30 in 1985 and got fired from his own company, after Apple's board turned against him. He was 'devastated'. His career seemed dead. He did something uninterrupted success might have made impossible: he became more creative. In 1986 he started two new companies, NeXT, a computer-maker that was always too far ahead of its time, and Pixar, an animation studio that went on to have a series of box-office hits. A decade later, ironically enough, NeXT was bought by Apple, and Jobs was brought back to run the company he had founded.

New toys on the way

His rivals in Silicon Valley, Redmond (Microsoft), Tokyo (Sony), Seoul (Samsung), and other places now simply take it for granted that he has a top-secret conveyor belt that will keep churning out best-selling wonders like the iPod. Hollywood and music studios are also increasingly frightened. The music studios, which barely took him seriously when he launched iTunes in 2001, are pressuring him to change his 99-cents-per-song flat rate for music. For somebody famous in large part for a spectacular defeat—to Bill Gates and Microsoft—all this must feel like a new lease of life, in every respect.

Source: 'The resurrection of Steve Jobs' *Economist*, 15 September 2005

In an article entitled 'Strategy and the delusion of grand design', Kay (2000) summarizes *distinctive capability* as the characteristics of a company that either cannot be copied by competitors or can only be copied with great difficulty. As we have seen, these will include such things as patents and copyrights, a strong brand image, patterns of supplier or customer relationships, and skills, knowledge, and routines that are often embedded within the organization and therefore are difficult for a competitor to unravel. It is these distinctive capabilities that are the basis of sustainable competitive advantage. The task then is to identify and match these distinctive capabilities with the needs of the marketplace.

Kay points out a contradiction inherent in the question 'How do organizations create distinctive capabilities?', since if distinctive capabilities can be replicated they fail to be distinctive capabilities. What is truly irreproducible has three sources: (1) market structure that limits entry; (2) a company's history which by definition will require time to replicate; (3) tacitness in relationships—the routines and behaviours—which cannot be copied since the participants themselves are unsure how they work. Therefore organizations would do well to identify what distinctive capabilities they already possess rather than what distinctive capabilities they would like to have. We will have more to say on this topic when we examine sustainable competitive advantage below.

www.oxfordtextbooks.co.uk/orc/henry
For a discussion of Kay's distinctive capabilities go to the Online Resource Centre and see the Key Work feature.

Grant (1991) distinguishes between resources and capabilities. He sees resources as inputs into the production process. These include capital equipment, the skills of

individual employees, patents, brands, finance, and so on. On their own these resources are rarely productive. To be productive requires the cooperation and coordination of teams (or bundles) of resources. A capability is the capacity for a team of resources to perform some task or activity. Therefore resources are the source of an organization's capability. And it is capabilities that are the main source of its competitive advantage.

Grant (1991) proposes a framework for strategy formulation comprising five stages.

1. Identify and classify the organization's resources. Appraise strengths and weaknesses relative to those of your competitors. Identify opportunities for better resource utilization.

2. Identify the organization's capabilities, i.e. what it can do better than its rivals. Identify the resource input to each capability, and the complexity of inputs.

3. Appraise the rent-generating potential of resources and capabilities by (a) their potential for sustainable competitive advantage, and (b) the appropriability of their returns.

4. Select a strategy which best exploits the organization's resources and capabilities relative to the opportunities that exist in the external environment.

5. Identify whether any resource gaps exist which need to be filled. Invest in improving the organization's resource base.

There are two fundamental reasons for making the resources and capabilities of the firm the foundation for its strategy. First, internal resources and capabilities provide the basic direction for a firm's strategy and, second, resources and capabilities are the primary source of profit for the firm.

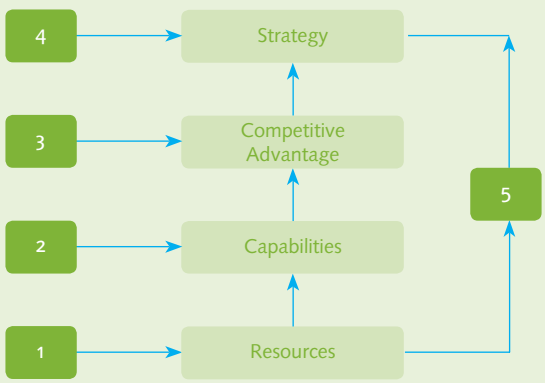


FIGURE 5.1

A resource-based view of strategy analysis.
Adapted from R.M. Grant (1991) The resource-based theory of competitive advantage: implications for strategy formulation, *California Management Review*

5.3 Identifying Sustainable Competitive Advantage

Barney (1991) argues that all the resources that the firm has access to may not be strategically relevant, since some may actually prevent an organization from conceiving and implementing a valuable strategy. Also, some resources may lead it to implement strategies that reduce its effectiveness and efficiency. A competitive advantage arises when an organization is implementing a value-creating strategy that is not also being implemented by current or potential competitors. A **sustained competitive advantage** occurs when an organization is implementing a value-creating strategy that is not being implemented by current or potential competitors *and* when these competitors are unable to duplicate the benefits of this strategy.

SUSTAINED COMPETITIVE ADVANTAGE

occurs when an organization is implementing a value-creating strategy that is not being implemented by competitors and when these competitors are unable to duplicate the benefits of this strategy

The use of the term *sustainability* here does not refer to permanence. Rather, it implies that a competitive advantage will not be competed away because competitors are unable to duplicate it. The competitive advantage may indeed be eroded by structural changes within the industry such that what was once a competitive advantage in one industry setting may not transcend industry changes. It then becomes a weakness or an irrelevance. This has resonance with the concept of *creative destruction*, highlighted by Joseph Schumpeter, which causes economies to advance through transformational changes. An organization's resource must have four attributes to provide the potential for a sustainable competitive advantage: (1) it must be valuable, (2) it must be rare, (3) it must be difficult to imitate; (4) there should be no strategic substitute for this resource. We can explore each of these in detail.

VALUABLE AND RARE RESOURCES

provide a means of competitive advantage. However, if the organization is to achieve sustainable competitive advantage it is necessary that competing organization cannot copy these resources

1. **Valuable resources** Organizational resources can only be a source of competitive advantage or sustainable competitive advantage when they are valuable. Resources are valuable when they enable a firm to formulate and implement strategies that improve its *efficiency and effectiveness*. Environmental models such as *Porter's five forces* (discussed in **Chapter 3**) and *SWOT analysis* (discussed in **Chapter 4**) seek to identify the organization's resources which can exploit opportunities and/or neutralize threats. It is in this sense, of exploiting opportunities and mitigating threats and thereby improving efficiency and effectiveness, that some attributes the organization possesses can be called a resource. The resource-based view goes further in suggesting the additional characteristics these resources must possess if they are to provide sustainable competitive advantage. Clearly, there are links between the work of Porter and the resource-based view, and differences between the two approaches can be overstated.

2. **Rare resources** If valuable organizational resources reside within a large number of competitors or potential competitors then they cannot be a source of sustainable competitive advantage. The reason is that each competitor

would have the capability to exploit that resource in the same way. The same analysis also applies to bundles of valuable organizational resources since some strategies require a mix of resources to be implemented. A valuable resource for implementing a strategy is undoubtedly leadership, but if this resource is not rare then many organizations will also be able to formulate and implement the same strategies. That a resource is valuable is a necessary but not sufficient condition for sustainable competitive advantage.

3. **Can the resource be imitated?** Valuable and rare resources provide a means of competitive advantage. However, if the organization is to achieve sustainable competitive advantage it is necessary that competing organizations cannot copy these resources. Where resources can easily be imitated, competitors will simply compete away an organization's ability to generate above-average returns. An example is the dot.com companies of the 1990s, some of whom had innovative ideas and gained a competitive advantage largely by first-mover advantages. Unfortunately, others quickly followed, acquiring the resources to imitate their strategies and eroding any lasting value. An organization's resources will be difficult to imitate if it embodies a *unique location*, *path dependency*, *causal ambiguity*, and *social complexity*.

Unique location An organization based in a unique location will be able to add value to its products which allows it to generate superior returns. The unique location it possesses is a resource that is difficult to imitate. French wines have long experienced a competitive advantage through the uniqueness of their climate, soil and expertise handed down through generations.

French wines are an example of competitive advantage through unique location: their climate, soil, and expertise handed down through generations.

Path dependency Competitors will find it extremely difficult to replicate resources that an organization possesses as result of the path it has followed to arrive at its current position. In effect, path dependency can be seen as the unique experiences an organization has acquired to date as a result of its tenure in business. Competitors simply cannot acquire these resources on the open market and therefore cannot copy the firm's value-creating strategy.

PATH DEPENDENCY

is a way of describing the unique experiences a firm has acquired to date as a result of its tenure in business

CAUSAL AMBIGUITY

exists when the link between the resources controlled by an organization and its sustainable competitive advantage is not understood or only partially understood

Causal ambiguity Causal ambiguity exists when the link between the resources controlled by an organization and its sustainable competitive advantage is not understood or is only partially understood. Therefore competitors are unsure as to which resources to acquire and, if required, how to configure them. This issue becomes a sustainable competitive advantage when the organization itself is unsure of the exact source of its competitive advantage. The strategies of Dell and Southwest Airlines are cases in point; competitors simply cannot imitate their success because they are unable to replicate their resource combinations or their unique history.

SOCIAL COMPLEXITY

an organization's resources may be difficult to imitate because they may be based on complex social interactions. These may exist between managers in the organization, a firm's culture, and a firm's reputation with its suppliers and customers

Social complexity A final reason why an organization's resources may be difficult to imitate is because they may be based on complex social interactions. These may exist between managers in an organization, in an organization's culture, and in its reputation with its suppliers and customers. When it is known how these socially complex resources add value to the firm, there is no causal ambiguity between the resources and competitive advantage of the organization. However, the fact that competitors may know, for example, that the culture within an organization improves efficiency does not mean that they can readily imitate that culture.

SUBSTITUTABILITY

implies that there must be no strategically equivalent valuable resources that are themselves not rare or can be imitated. Two valuable firm resources (or bundles of resources) are strategically equivalent when they can be exploited separately to implement the same strategies

4. **Substitutability** Substitutability implies that there must be no strategically equivalent valuable resources that are themselves not rare or that can be imitated. Two valuable firm resources (or bundles of resources) are strategically equivalent when they can be exploited separately to implement the same strategies. Substitutability can take at least two routes. First, although it may not be possible for a firm to imitate another firm's resources exactly, it may be able to substitute a similar resource that allows it to formulate and implement identical strategies. For example, an organization may seek to copy a competitor's top management team. Although this will not be done exactly as the teams will be different, they may be seen as strategic equivalents and therefore as substitutes. Second, very different firm resources can be strategic substitutes. In one organization an inspirational leader may have a clear vision of future consumer trends. In a competing organization a similar vision about the future may require focus groups, and teams of managers thinking, sharing, and debating what the future might hold. The two firm resources may be strategically equivalent, and thus substitutes for one another.

The Case Study on Dell illustrates the difficulty that competitors face in trying to imitate Michael Dell's direct-sales business model. Although the model appears transparent, in reality there exists substantial causal ambiguity and social complexity that makes it very difficult to imitate.

CASE STUDY 5.1

Dell

Michael Dell's Money-making Machine has Further Scope for Growth

AS TECHNOLOGY executives go, Michael Dell is not, you might say, as colourful as some of his peers. Larry Ellison of Oracle has his huge new yacht and his fighter jet; Jeff Bezos of Amazon is funding a space-rocket start-up; Bill Gates of Microsoft has his enormous, high-tech house and a penchant for Leonardo manuscripts; Steve Jobs of Apple somehow combines counter-cultural cool with business smarts and a second job as a movie mogul. What about Mr Dell? He has four kids, a wife and three dogs, he shrugs. And no, he does not invest in rockets. His company, the world's largest maker of personal computers, is fashioned in Mr Dell's own forthright, no-nonsense image. It does not make sexy products—but, thanks to its straightforward direct-sales model, its brutally efficient lean-manufacturing approach and its unrivalled expertise in logistics and supply-chain management, it does make an enormous amount of money.

The way Dell makes and sells PCs is, in fact, the antithesis of the way Apple makes and sells its iPod music-players, which are arguably the sexiest technological devices around at the moment. Dell's PCs are based on industry-standard technologies. They are sold direct, through Dell's website. And the company's efficiency allows it to offer low prices, squeezing out less competitive rivals while still making a profit. The iPod, by contrast, is based on proprietary standards, is sold through Apple's glitzy chain of retail stores, and is priced at a premium to rival players. This week Dell launched a new music-player, the DJ Ditty, as a challenge to Apple. As you would expect, it is cheap, powerful, but not terribly exciting. 'Tape-backup drives are a far bigger business for us, or LCD projectors', says Mr Dell. Such products, along with storage-area networks, servers, and other bits of corporate-computing gear—only 15 per cent of Dell's sales are to consumers—may not be as glamorous, but are far more lucrative.

Dell's ability to churn out profits in a predictable and reliable manner has made it a favourite among investors. Look at the last 10 years of sales data in the firm's 15 biggest markets—a total of 150 data points—and you will find that it increased its market share in 144 cases, says Mr Dell. That is strong evidence, he says, that his firm's business model 'works everywhere, in a multitude of market conditions'. But might the Dell machine be in danger of running out of steam? Last month, Dell announced that, despite record earnings, its second-quarter sales had grown by a mere 14.7 per cent, rather than the 16–18 per cent it had forecast, and that sales in the current quarter would also be slightly lower than expected. Its share price immediately fell by nearly 10 per cent, and has since declined further.

The case against Dell was made most strongly by Laura Conigliaro, an analyst at Goldman Sachs, who downgraded Dell from 'outperform' to 'neutral'. Dell is unlikely to return to reliable double-digit revenue growth in future, she argues. It faces increasing competition from Asian vendors such as Acer and Lenovo, and a widening gap between unit growth and revenue growth. And it is a far less nimble company than it used to be. 'The company has now come up short of revenue expectations four quarters in a row, with each quarter's miss caused by a different combination of market conditions and execution miscues', she wrote. In short, Dell is a victim of its own success: its scale means it is running out of room for growth, cannot respond quickly to changing market conditions, and no longer deserves to be valued at a premium to its rivals. Really?

Room for Growth, Outside America

Mr Dell says he has heard all this before, 'maybe ten thousand or twenty thousand times'. Back in the 1990s, he recalls, critics claimed there were limits to the firm's direct-sales model, and suggested that Dell would never be able to make laptops or servers. 'People say the sky has fallen, that it's the beginning of the end', he says. 'I don't agree. There are lots of markets with room to grow'. This week Kevin Rollins, who took over from Mr Dell as chief executive officer in 2004, said the company hopes to double or even triple its market share in Europe, which is around 13 per cent, compared with 32 per cent in America. Sales in The Netherlands, for example, are growing by 40 per cent a year.

Dell's worldwide market share of around 19 per cent means there is also room for growth in other regions, notably Asia. But won't low-cost Asian vendors be difficult for Dell to elbow aside? No, says Mr Dell. The firm is, in effect, an Asian vendor itself, with factories in China and Malaysia. Dell is more efficient than Lenovo, he says, and more profitable, thanks to its direct-sales model. Other growth areas are printers, storage systems, and services. In printing, profit margins are unusually high, notes Mr Dell. 'We'll fix that', he says, just as the company did when it undercut the high-margin incumbents in the server business. Dell's services arm, meanwhile, which installs and manages computers for large companies, now represents 10 per cent of its business, and is growing twice as fast as its PC division.

What of the charge that Dell's size means it is less responsive to shifts in demand? Mr Dell makes a point of making regular visits to the company's call-centres—and even takes a few calls himself—to make sure that he still understands consumer demand. On one of these visits, the deluge of calls received convinced him that the company had gone too far in slashing the prices of its consumer PCs—a move that had compensated for slowing demand from the American government, but hurt the firm's margins. Mr Dell enjoys his spells in the call-centre—they are, he says with relish, 'lots of fun'.

Evidently Mr Dell's idea of fun is different from that of his peers, with their yachts, planes, and spaceships. Like his firm, he is predictable rather than glamorous. But that is the way investors like it, and he intends to keep things that way.

Source: 'Technology's Mr Predictable' *Economist*, 22 September 2005

Questions

1. Identify the resources and core competencies of Dell?
2. Why do competitors find it so difficult to imitate Dell's direct-sales model given that its products are based on standard industry technology?

5.3.1 Make or Buy Decision

The recognition of an organization's core competence or activities that it performs exceptionally well can be the basis for its decision to provide a product or service itself, or to outsource it. If the organization is to focus on its core competencies as the basis of its sustainable competitive advantage, then the corollary of this is that activities which do not constitute a core competence for the firm can be given to outside firms who can provide these at a lower cost. This decision is intrinsically linked with an understanding of the activities contained within the firm's value chain. For example, British Airways recognize that the provision of in-flight meals and services add little value to their overall activities and that they have no core competencies in these functions. As a result they realize that this function can be best attended to by outside catering organizations. The make or buy decision, or what is more appropriately termed *transaction costs*, will be discussed in greater detail in **Chapter 8**.

5.4 Criticisms of the Resource-Based View

Most would agree that the resource-based view of the firm represents a leap forward in strategic management. There are clear links and complementarity with the work of Michael Porter and the positioning school, and equally sharp departures. Whether one would go so far as classifying the resource-based view as a new paradigm within strategic management is a matter of debate. Furthermore, although there are benefits to the resource-based view of strategy, it is not without criticisms. A common criticism made of the resource-based view is that it says very little on the important issues of how resources can develop and change over time. Similarly, the dynamic role played by individuals within organizations is often assumed to be self-evident and therefore seldom addressed. Others have argued that the resource-based view of strategy lacks detail and is therefore difficult for organizations to implement (Priem and Butler 2001). A more detailed road map is required if it is to prove useful to organizations. Lastly, we are back in the realm of deliberate strategies (see **Chapter 1**) with no formal recognition of emergent strategies and the role that these might play.

5.5 Knowledge Management

The Internet has given rise to talk of a new economy which plays by different rules to the old economy. Whereas in the old economy an organization's capital assets are crucially important, in the new economy intellectual assets predominate. The real question regarding the Internet is: does it represent a new paradigm or new way of doing business? Porter (2001) disagrees with those who argue that the Internet represents a new way of doing business. He points out that it is the established organizations that are benefiting from their use of the Internet to improve their product offerings and strategy. Whilst the Internet may simply be conducive to aiding existing business practices it has undoubtedly helped with the wide dissemination of knowledge.

KNOWLEDGE MANAGEMENT

refers to processes and practices through which organizations generate value from knowledge

Grant (2005) argues that much current thinking about resources and capabilities has been shaped by an interest in **knowledge management**. (See Case Study: Knowledge Management at Dyson which illustrates how the knowledge capability that resides within the Dyson organization is being used to re-enter the washing machine market.) Much of the literature has been dominated by organizational learning. It has exhorted firms to become learning organizations and offered remedies for teaching smart people how to learn. We will say more on these issues in **Chapters 10** and **11**. Grant

suggests that the single most important contribution of knowledge management is the recognition that different types of knowledge have different characteristics. We might also add that, unlike other resources, knowledge tends not to be depleted with use. Furthermore, the leveraging of knowledge across organizational boundaries is an active pursuit of most corporations in their search for sustainable competitive advantage. This search can also be achieved by the organization entering into strategic alliances (see **Chapter 9**).

CASE STUDY 5.2

Knowledge Management at Dyson

James Dyson has been doing a lot of pondering recently about the differences between washing machines and vacuum cleaners. For a decade, he has nurtured an ambition to become as big a force in appliances to clean people's clothes as those to clear the debris from their carpets. While his foray in floor cleaners has turned out to be a big success, Mr Dyson has so far struggled to make a mark when it comes to machines for washing. Aged 59, Mr Dyson is one of Britain's best-known entrepreneurs. He has an army of fans, some of whom are competitors. Hans Straberg, chief executive of Electrolux, the Swedish company that is the world's second biggest maker of domestic appliances, says Mr Dyson 'has done a great job', while Sir Anthony Bamford, chairman and owner of the JCB excavator company, says 'James has been a fabulous success. Britain needs more people like him'.

But among the problems Mr Dyson faces trying to make headway in washing machines—an industry with global annual sales of some £15bn and with big competitors including Whirlpool of the US and Japan's Matsushita—are the fundamental differences between these and vacuum cleaners. Mr Dyson gained success in vacuum cleaners through high price and stylish machines that featured a new way of sucking up dirt without a bag, which appealed to consumers' desire to try something new. Washing machines, however, are considered by many to be extremely dull. Whether they will pay significantly extra for a new design—even if its performance is better—is open to question.

'I think James will have to do something very unusual if he is to replace the success he has had with vacuum cleaners in washing machines', says Graham White, head of the UK operations of Candy, the Italian white goods producer whose UK brands include Hoover. Others say that the complexity of manufacturing washing machines—which feature a host of sophisticated mechanisms including pumps and motors that have to work reliably—is a lot higher than for the relatively simple design of a vacuum cleaner. Six years ago Dyson unveiled a novel type of washing machine—called the 'Contrarotator' because it featured two drums spinning in

opposite directions. The machine was very expensive, retailing at more than £500, or twice the price of a standard washing machine sold in the UK.

However, even in the product's best year for sales in 2002, according to market research data, the Contrarotator accounted for sales of only 18 000 units in the UK, out of total washing machine sales of some 2.2m a year. In 2005, the number of Contrarotators sold slumped to 2500. Counting only those sales of 'up-market' washing machines retailing at above £500, the Dyson product chalked up a creditable 21 per cent share of the market in 2002. But by 2005—when the machine was quietly withdrawn—this figure had fallen to 2 per cent.

Mr Dyson insists instead that a new type of washing machine—now being worked on by a research and development team at Dyson's headquarters in Malmesbury, Wiltshire—will be better than the first one. Mr Dyson says: 'We will develop a new machine and then see how many people want to buy it. I am sure it can be a success'. Mr Dyson had to show a lot of perseverance in vacuum cleaners. In the early 1990s he faced huge scepticism that he would make headway in this field. But in the past year the company's sales reached £470m, roughly two-thirds of which came from outside the UK, while pre-tax profit for the year was £103m, up 32 per cent on 2004. Almost all the sales come from vacuum cleaners—a product in which Dyson has built large sales in the US and Japan.

The recent picture has been less good in the UK, where total sales of vacuum cleaners have fallen in the past 2 years due to fierce price competition and a squeeze on household spending. Dyson's market share by value in the UK vacuum cleaner business—where it is still the market leader—has fallen from about 44 per cent in 2002 to about 37 per cent last year, according to industry data. Four years ago the company controversially closed its UK factory, axing 620 jobs, opting to make its products in Malaysia where manufacturing costs are lower. Even so, staff numbers in the UK (including 420 R&D people) now total 1400, not far short of the 1800 the company employed in the UK in 2002.

Mr Dyson describes himself not as an entrepreneur but rather as someone pursuing a 'gentlemanly hobby'. He adds: 'I am basically interested in building new machines for myself. I am not really interested in business for its own sake'. But Mr Dyson knows that if he is [to] replicate his floor-care achievements in the different field of washing machines, he still has a lot to prove.

Source: 'A 10-year struggle to clean up in appliance market—James Dyson hopes to repeat his vacuum cleaner success with washing machines' *Financial Times*, 27 June 2006

Questions

1. How difficult is it for a competitor to imitate the resources and capabilities that reside inside the Dyson organization?
2. Identify what, if any, are the *distinctive capabilities* that exist within Dyson?
3. To what extent are intangible resources sufficient for an organization to achieve competitive advantage?

Nonaka and Takeuchi (1995) differentiate between knowledge that can be seen as *tacit* and knowledge that can be seen as *explicit*. Explicit knowledge or 'knowing about' is revealed through communication and can be readily transferred. Examples might include company accounts, or how to put up a tent. It is precisely because explicit knowledge is so readily transferred that it requires some form of protection, such as copyright, if it is to remain within the organization. Tacit knowledge or 'know-how,' in contrast, cannot be codified. It is highly personal, and difficult to formalize and disseminate to others. It is revealed through its application and acquired through practice. It consists of mental models, beliefs, and perspectives. No matter how many times one explains how to ride a bicycle to a four-year-old he will only acquire the knowledge through practice. Transfer of tacit knowledge can be slow, costly, and uncertain. Tacit knowledge will require individuals to coalesce around the provider of that knowledge if it is to be *eventually* acquired.

For the organization, managing knowledge will require an understanding of its characteristics. If organizations are to learn and grow they need to be able to share tacit knowledge effectively. However, managing this tacit knowledge throughout all areas of the organization is a daunting task. If an organization is to learn in ways that benefit its performance, individuals and groups within the organization must be willing to modify their behaviour accordingly. What is apparent is that the knowledge-based economy is here to stay. Therefore the question for organizations is not *Should we?* but *How do we?*

Summary

The resource-based view has shaken up strategic management by questioning industry selection and positioning which results in organizations pursuing similar strategies. Instead, this approach emphasizes the organization's own set of resources and capabilities as a determinant of competitive advantage.

In this chapter we have explored and delineated resources, core competencies, and distinctive capabilities in order to identify how competitive advantage might be achieved. We also looked at the issue of sustainable competitive advantage. There is slight confusion among the terms used by different adherents to the resource-based view but, as we have seen, this is readily overcome. Where Prahalad and Hamel discuss core competence, Kay uses the term distinctive capabilities; both are a means of achieving sustainable competitive advantage. Grant distinguishes between resources and capabilities and proposes a five-stage framework for strategy formulation. We examined four attributes an organization's resources must possess in order to provide it with the potential for sustainable competitive advantage. We also addressed some of the criticisms of the resource-based view which relate to difficulties that organizations may experience in trying to implement this approach. We concluded the chapter with a discussion of knowledge management and the challenges facing organizations as they try to manage tacit knowledge.

We end by arguing that Porter's industry analysis remains important and the choice should not be seen as one of *either/or* but rather one of complementarity. Organizations cannot neglect the industries within which they operate, but neither can they afford to focus slavishly upon it at the expense of their internal resources and miss opportunities to establish sustainable competitive advantage.

Review Questions

1. Evaluate the key differences between Porter's five forces framework and the resource-based view of competition.

2. What do you believe is the contribution of the resource-based view to strategic management?

Discussion Questions

1. To what extent does the resource-based view represent a new paradigm within strategic management?

2. What is the role of knowledge within modern corporations and how can it be managed effectively?

Research Topic

Identify the internal resources and capabilities that reside within British Airways. Evaluate whether these provide the airline with a sustainable competitive advantage?

Recommended Reading

A good introduction to the resource-based view is provided by:

- **Barney, J.** (1991). Firm resources and sustained competitive advantage. *Journal of Management*, **17**(1), 99–120.

An article that is widely credited with popularizing the views of the resource-based approach is:

- **Prahalad, C.K.** and **Hamel, G.** (1990). The core competence of the organization. *Harvard Business Review*, **68**(3), 79–91.

For an explanation of how organizations with fewer resources but bigger aspirations than their competitors can compete successfully, see:

- **Hamel, G.** and **Prahalad, C.K.** (1993). Strategy as stretch and leverage. *Harvard Business Review*, **71**(2), 75–84.

For a detailed discussion of distinctive capabilities, see:

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

www.oxfordtextbooks.co.uk/orc/henry
Test your understanding of this chapter with online questions and answers, explore the subject further through web exercises, and use the weblinks and journal abstracts to provide a quick resource for further research.

online resource centre

Notes

[1] See www.harrisinteractive.com for a list of companies and their reputation quotient (the Reputation Index).

[2] See www.harrisinteractive.com.

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