III

THE ANALYSIS OF COMPETITIVE ADVANTAGE

7

The Nature and Sources of Competitive Advantage

One Saturday afternoon in downtown Chicago, Milton Friedman, the famous free-market economist, was shopping with his wife.

"Look, Milton!" exclaimed Mrs. Friedman. "There's a $20 bill on the sidewalk!"

"Don't be foolish, my dear," replied the Nobel laureate. "If that was a $20 bill, someone would have picked it up by now."

—ECONOMIST'S ANECDOTE OF DOUBTFUL AUTHENTICITY

OUTLINE

Introduction and Objectives

In this chapter, we integrate and develop the elements of competitive advantage that we have analyzed in prior chapters. Chapter 1 noted that a firm can earn superior profitability either by locating in an attractive industry or by establishing a competitive advantage over its rivals. Of these two, competitive advantage is the more important. As competition has intensified across almost all industries, very few industry environments can guarantee secure returns; hence, the primary goal of a strategy is to establish a position of competitive advantage for the firm.

Chapters 3 and 5 provided the two primary components of our analysis of competitive advantage. The last part of Chapter 3 analyzed the external sources of competitive advantage: customer requirements and the nature of competition determine the *key success factors* within a market. Chapter 5 analyzed the internal sources of competitive advantage: the potential for the firm's resources and capabilities to establish and sustain competitive advantage.

This chapter looks more deeply at competitive advantage. We focus on the relationship between competitive advantage and the competitive process. Competition provides the incentive for establishing advantage and is the means by which advantage is eroded. Only by understanding the characteristics of competition in a market can we identify the opportunities for competitive advantage.

By the time you have completed this chapter you will be able to:

- Identify the circumstances in which a firm can create a competitive advantage over a rival.
- Understand how responsiveness and innovation can create competitive advantage.
- Predict the potential for competition to erode competitive advantage through imitation.
- Recognize the role of resource conditions in creating imperfections in the competitive process and, therefore, opportunities for competitive advantage.
- Distinguish the two primary types of competitive advantage: cost advantage and differentiation advantage.
- Apply this analysis to assess the potential for a business strategy to establish and sustain competitive advantage given the characteristics of the industry setting.

The Emergence of Competitive Advantage

To understand how competitive advantage emerges, we must first understand what competitive advantage is. Most of us can recognize competitive advantage when we see it: Dell Computer has a competitive advantage in the supply of personal computers, Wal-Mart has a competitive advantage in discount retailing, Toyota has a competitive advantage in making cars. Defining competitive advantage is troublesome. At a basic level we can define it as follows:

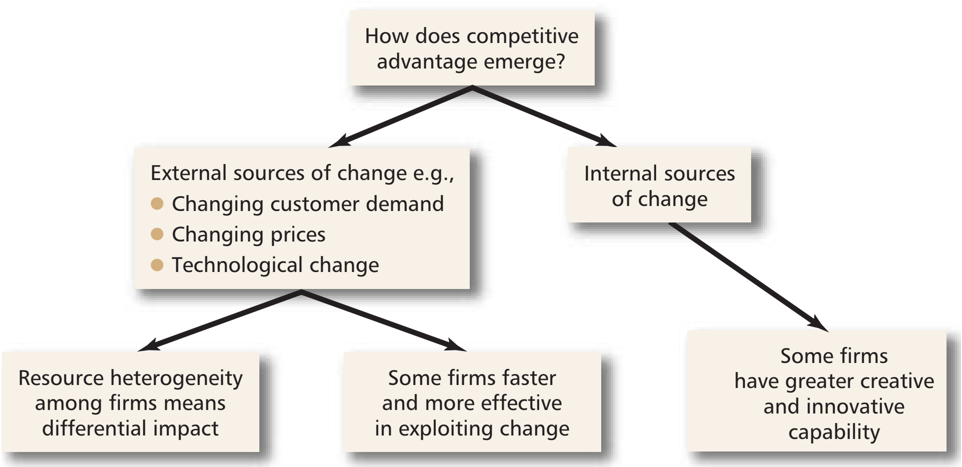
> *When two or more firms compete within the same market, one firm possesses a competitive advantage over its rivals when it earns (or has the potential to earn) a persistently higher rate of profit.*

The problem here is that, if we identify competitive advantage with superior profitability, why do we need the concept of competitive advantage at all? The key difference is that competitive advantage may not be revealed in higher profitability – a firm may forgo current profit in favor of investment in market share, technology, customer loyalty, or executive perks.[1]

External Sources of Change

Differences in profitability between competing firms are a disequilibrium phenomenon[2] – hence, competitive advantage emerges when change occurs. The source of the change may be external or internal to the industry: Figure 7.1 illustrates several sources. For an external change to create competitive advantage, the change must have differential effects on companies because of their different resources and capabilities or strategic positioning. For example, during 2000–3, General Motors' return on equity was 14.4%; Toyota's was 8.8%. During 2004–5, General Motors' ROE was –14.4%; Toyota's was 13.5%. Over the period oil prices had tripled and demand had shifted, increasing to the transitional economies. Toyota, with its fuel-efficient product range and superior distribution in Asia and Eastern Europe, was the advantaged competitor.

FIGURE 7.1 The emergence of competitive advantage



The extent to which external change creates competitive advantage and disadvantage depends on the magnitude of the change and the extent of firms' strategic differences. The more turbulent an industry's environment, the greater the number of sources of change, and the greater the differences in firms' resources and capabilities, the greater the dispersion of profitability within the industry. In the world tobacco industry, the external environment is comparatively stable and the leading firms pursue similar strategies with similar resources and capabilities. The result is that competitive advantages, as reflected in interfirm profit differentials, tend to be small. The toy industry, on the other hand, experiences rapid and unpredictable changes in demand, technology, and fashion. The leading companies pursue different strategies and have different resources and capabilities. As a result, profitability differences are wide and variable over time.

Competitive Advantage from Responsiveness to Change

The impact of external change on competitive advantage also depends on firms' ability to respond to change. Any external change creates opportunities for profit. The ability to identify and respond to opportunity lies in the core management capability that we call *entrepreneurship*.[3] To the extent that external opportunities are fleeting or subject to first-mover advantage, speed of response is critical to exploiting business opportunity. An unexpected rain shower creates an upsurge in the demand for umbrellas. Those street vendors who are quickest to position themselves outside a busy railroad station will benefit most.

As markets become increasingly turbulent, so responsiveness to external change has become increasingly important as a source of competitive advantage.

- Wal-Mart's ability consistently to outperform Kmart and other discount retailers is based on a business system that responds quickly and effectively to changes in demand. Wal-Mart's distribution and purchasing are driven by point-of-sale data, resulting in low inventories, few stockouts, and few forced markdowns. However, at the heart of Wal-Mart's fast-response capability is the encouragement and rewarding of initiative at all levels of the company.
- Nokia's continued market and profit leadership in mobile phones owes much to its rapid response to changes in technology and customer preferences.

Responsiveness also involves anticipating changes in the basis of competitive advantage. As an industry evolves, companies must adjust their strategies and their capabilities to shifting key success factors. Monsanto showed considerable foresight in building its competitive position to outlive the expiration in 1992 of its patents on its artificial sweetener Nutrasweet. In addition to heavy promotion of the Nutrasweet brand name and its "swirl" logo, Monsanto invested in scale-efficient production facilities, signed long-term exclusive supply contracts with key customers (such as Coca-Cola), and used trade secrets to protect its production know-how.[4]

Responsiveness to the opportunities provided by external change requires one key resource – information – and one key capability – flexibility. Information is necessary to identify and anticipate external changes. This requires environmental scanning. As the pace of change has accelerated, firms are less dependent on conventional analysis of economic and market research data and more dependent on "early warning systems" through direct relationships with customers, suppliers, and competitors. The faster a company can respond in real time to changing market circumstances, the less

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TABLE 7.1 New Product Development Performance by US, Japanese, and European Auto Producers

	Japanese volume producer	US volume producer	European volume producer	European high-end specialist
Average lead time (months)	42.6	61.9	57.6	71.5
Engineering hours (in millions)	1.2	3.5	3.4	3.4
Total product quality index	58	41	41	84

SOURCE: KIM B. CLARK AND TAKAHIRO FUJIMOTO, *PRODUCT DEVELOPMENT PERFORMANCE* (BOSTON: HARVARD BUSINESS SCHOOL PRESS, 1991): 73.

it needs to forecast the future. Short cycle times are a key requirement for fast response capability:

- Dell Computer is a master of speed and agility. A custom order placed at 9 a.m. on Monday can be on a delivery truck by 9 p.m. Tuesday. This permits Dell to customize each computer to the customer's specifications and to operate with under 10 days' inventory, which not only cuts costs but permits Dell to adjust rapidly to changes in market demand and technology.[5]
- The Zara chain of retail clothing stores owned by the Spanish company Inditex has a tightly integrated vertical structure that cuts the time between a garment's design and retail delivery to under three weeks – the industry norm is six to nine months. This allows Zara to identify emerging fashion trends and launch new styles on the market far quicker than its mass-market competitors.[6]

Emphasis on speed as a source of competitive advantage is central to the Boston Consulting Group's concept of *time-based competition*.[7] The premise that speed is the only real source of advantage in today's economy was the primary rationale behind the founding of *Fast Company* magazine in 1995. In automobiles, speed of new product development has been a major advantage of Japanese companies (see Table 7.1). However, only with the advent of the internet, real-time electronic data exchange, and business process reengineering have companies been able to reduce cycle times drastically through radical changes in operations, strategy, and organization.

Competitive Advantage from Innovation: "New Game" Strategies

The changes that create competitive advantage may be internal as well as external. Internal change is generated by innovation. Innovation not only creates competitive advantage, it provides a basis for overturning the competitive advantage of other firms. Schumpeter's view of the competitive process as "a gale of creative destruction" viewed market leadership being destroyed by innovation rather than eroded by imitation. Innovation is typically thought of in its technical sense: the new products or processes that embody new ideas and new knowledge. In a business, however, innovation includes new approaches to doing business – *strategic innovation* – including new business models (see Strategy Capsule 7.1).

STRATEGY CAPSULE 7.1

Gary Hamel on the Quest for New Business Models

In *Leading the Revolution*, Gary Hamel, chairman of the consulting firm Strategos and visiting professor at London Business School, argues that the age of continuity is over and we have now entered the age of revolution where the value of incumbency is being eroded and those companies that embrace discontinuous change will be the winners. The revolutionaries will win through innovatory business concepts embodied in new business models:

> *In the new economy, the unit of analysis for innovation is not a product or a technology – it's a business concept. The building blocks of a business concept and a business model are the same – a business model is simply a business concept that has been put into practice. Business concept innovation is the capacity to imagine dramatically different business concepts or dramatically new ways of differentiating existing business concepts. Business concept innovation is thus the key to creating new wealth. Competition within a broad domain – be it financial services, communications, entertainment, publishing, education, energy, or any other field – takes place not between products or companies, but between business models.*

Source: G. Hamel, *Leading the Revolution* (Boston: Harvard Business School Press, 2000).

What does "strategic innovation" involve? Most commonly it involves creating value for customers from novel experiences, products, or product delivery or bundling. The competition in the retail sector is driven by a constant quest for new retail concepts and formats. This may take the form of: bigger stores with greater variety (Toys-R-Us, Home Depot); augmented customer service (Nordstroms); novel approaches to display and store layout (Sephora in cosmetics).

Strategic innovation may also be based on redesigned processes and novel organizational designs:

- In the US steel industry, Nucor achieved unrivaled productivity and flexibility by combining new process technologies, flat and flexible organizational structures, and innovative management systems. Since 1997, it has been the biggest steel producer in the US.
- Southwest Airlines' point-to-point, no-frills airline service using a single type of plane and flexible, nonunion employees has made it the only consistently profitable airline in North America and the model for budget airlines throughout the world.
- Nike built its large and successful businesses on a business system that totally reconfigured the traditional shoe-manufacturing value chain. To begin with, Nike does not manufacture shoes – indeed, it manufactures little of anything. It designs, markets, and distributes shoes, but its primary activity is the

coordination of a vast and complex global network involving design and market research (primarily in the US), the production (under contract) of components (primarily in Korea and Taiwan), and the contract assembly of shoes (in China, Philippines, India, Thailand, and other low-wage countries).

- Apple Computer's resurgence during 2003–6 is the result of its reinvention of the recorded music business by combining an iconic MP3 player with its iTunes music download service.

How do we go about formulating innovative strategies? Are new approaches to competing and delivering superior value the result of pure creativity, or are there analyses and ways of thinking that can lead us in the right direction? The management literature suggests several approaches:

- McKinsey & Company's concept of *new game strategy* involves reconfiguring the industry value chain in order to change the "rules of the game." Strategy Capsule 7.2 outlines a successful new game strategy.
- Charles Baden-Fuller and John Stopford argue that strategic innovation often involves delivering unprecedented customer satisfaction through combining performance dimensions that were previously viewed as conflicting. For example, Toyota's "lean production system" combines low cost, high quality, and innovative product differentiation. Richardson, a Sheffield-based cutlery manufacturer, uses process technology, innovatory design, and an entrepreneurial culture to supply kitchen knives that combine low price, sharpness, durability, and attractive designs.[8]
- Kim and Mauborgne's *blue ocean strategy* emphasizes the attractions of creating new markets. Blue oceans may comprise entirely new industries (Apple's pioneering of the personal computer industry), or recreating existing industries (Cirque du Soleil in the circus business).[9]
- Gary Hamel argues that strategic innovation extends beyond new products, new markets and new technologies. Innovations in management – Procter & Gamble's invention of brand management, General Electric's unique approach to management development, Toyota's lean production system – are the strongest foundation for competitive advantage.[10]

Sustaining Competitive Advantage

Once established, competitive advantage is subject to erosion by competition. The speed with which competitive advantage is undermined depends on the ability of competitors to challenge either by imitation or innovation. Imitation is the most direct form of competition; thus, for competitive advantage to be sustained over time, barriers to imitation must exist. Rumelt uses the term *isolating mechanisms* to describe "barriers that limit the *ex post* equilibration of rents among individual firms."[11] The more effective these isolating mechanisms are, the longer competitive advantage can be sustained against the onslaught of rivals. In most industries the erosion of the competitive advantage of industry leaders is a slow process. Even over periods of a decade and more, interfirm profit differentials tend to persist, with little change in the identities of the leaders and the laggards.[12]

STRATEGY CAPSULE 7.2

Reconfiguring the Value Chain for New Game Strategies: Savin and Xerox

For most of the 1970s, Xerox possessed a near monopoly position in the North American market for plain-paper copiers. Xerox's dominance rested, first, upon the wall of patents that the company had built over several decades and, second, on the scale economies and reputation that its market dominance conferred. The first company to compete effectively with Xerox during the late 1970s was Savin. The basis of Savin's challenge was an approach that sought not to imitate Xerox's success but to compete in an entirely different manner.

Savin developed and patented a new low-cost technology. Its product design permitted the use of standardized parts that could be sourced in volume from Japan. Assembly was also undertaken in Japan. The result was a product whose cost was about half that of Xerox's. To avoid the costs of leasing and the need for a costly direct sales force, Savin distributed through existing office equipment dealers.

The principal differences between the approach of Savin and that of Xerox can be seen by comparing the main activities of the companies:

Value chain activity	Xerox	Savin
Technology and design	Dry xerography High copy speed Many features	Liquid toner Low copy speed Few features and options
Manufacture	Most manufacturing (including components) in house	Machines sourced from Ricoh in Japan
Product range	Wide range of machines	Narrow range of machines for different volumes and uses
Marketing	Machines leased to customers	Machines sold to customers
Distribution	Direct sales force	Distribution through dealers
Service	Directly operated service organization	Service by dealers and independent service engineers

Source: Roberto Buaron, "New-Game Strategies," *McKinsey Staff Paper* (March 1980); reprinted in *On Strategy* (McKinsey Quarterly Anthologies, 2000): 34–6.

To identify the sources of isolating mechanisms, we need to examine the process of competitive imitation. For one firm successfully to imitate the strategy of another, it must meet four conditions:

- *Identification*. The firm must be able to identify that a rival possesses a competitive advantage.
- *Incentive*. Having identified that a rival possesses a competitive advantage (as shown by above-average profitability), the firm must believe that by investing in imitation, it too can earn superior returns.
- *Diagnosis*. The firm must be able to diagnose the features of its rival's strategy that give rise to the competitive advantage.

FIGURE 7.2 Sustaining competitive advantage: types of isolating mechanism

REQUIREMENT FOR IMITATION	*ISOLATING MECHANISM*
Identification	—*Obscure* superior performance
Incentives for imitation	—*Deterrence*: signal aggressive intentions to imitators —*Preemption*: exploit all available investment opportunities
Diagnosis	—Rely on multiple sources of competitive advantage to create "*causal ambiguity*"
Resource acquisition	—Base competitive advantage on resources and capabilities that are *immobile* and *difficult to replicate*

- *Resource acquisition*. The firm must be able to acquire through transfer or replication the resources and capabilities necessary for imitating the strategy of the advantaged firm.

Figure 7.2 illustrates these stages and the types of isolating mechanism that exist at each stage.

Identification: Obscuring Superior Performance

A simple barrier to imitation is to obscure the firm's superior profitability. In the 1948 movie classic *The Treasure of the Sierra Madre*, Humphrey Bogart and his partners went to great lengths to obscure their find from other gold prospectors.[13] The Mongolian Gold Rush of 2002–3 also featured secretive behavior as companies with good initial test results sought to acquire exploration rights on nearby properties.[14]

Avoiding competition through avoiding disclosure of a firm's profits is much easier for a private than a public company. For Mars Ltd., the nondisclosure of financial results may help the firm in protecting its highly profitable pet food and confectionery businesses.

The desire to avoid competition may be so strong as to cause companies to forgo short-run profits. The *theory of limit pricing*, in its simplest form, postulates that a firm in a strong market position sets prices at a level that just fails to attract entrants.[15]

Deterrence and Preemption

A firm may avoid competition by undermining the incentives for imitation. If a firm can persuade rivals that imitation will be unprofitable, it may be able to avoid competitive challenges. In Chapter 4 we discussed strategies of deterrence and the role of signaling and commitment in supporting them.[16]

As we have seen, reputation is critically important in making threats credible. Brandenburger and Nalebuff argue that in the aspartame market, Nutrasweet's aggressive price war against the Holland Sweetener Company deterred other would-be entrants.[17]

A firm can also deter imitation by preemption – occupying existing and potential strategic niches to reduce the range of investment opportunities open to the challenger. Preemption can take many forms:

- Proliferation of product varieties by a market leader can leave new entrants and smaller rivals with few opportunities for establishing a market niche. Between 1950 and 1972, for example, the six leading suppliers of breakfast cereals introduced 80 new brands into the US market.[18]
- Large investments in production capacity ahead of the growth of market demand also preempt market opportunities for rivals. Monsanto's heavy investment in plants for producing Nutrasweet ahead of its patent expiration was a clear threat to would-be producers of generic aspartame.
- Patent proliferation can protect technology-based advantage by limiting competitors' technical opportunities. In 1974, Xerox's dominant market position was protected by a wall of over 2,000 patents, most of which were not used. When IBM introduced its first copier in 1970, Xerox sued it for infringing 22 of these patents.[19]

The ability to sustain competitive advantage through preemption depends on the presence of two imperfections of the competitive process. First, the market must be small relative to the minimum efficient scale of production, such that only a very small number of competitors is viable. Second, there must be first-mover advantage that gives an incumbent preferential access to information and other resources, putting rivals at a disadvantage.

Diagnosing Competitive Advantage: "Causal Ambiguity" and "Uncertain Imitability"

If a firm is to imitate the competitive advantage of another, it must understand the basis of its rival's success. In most industries, there is a serious identification problem in linking superior performance to the resources and capabilities that generate that performance. Consider the remarkable success of Wal-Mart in discount retailing. It is easy for Kmart to point to the differences between Wal-Mart and itself. As one Wal-Mart executive commented: "Retailing is an open book. There are no secrets. Our competitors can walk into our stores and see what we sell, how we sell it, and for how much." The difficult task is to identify which differences are the critical determinants of superior profitability. Is it Wal-Mart's store locations (typically in small towns with little direct competition)? Its tightly integrated supply chain? Its unique management system? The information system that supports Wal-Mart's logistics and decision-making practices? Or is it the culture that combines rural American values of thrift, simplicity, and hard work with company traditions of family-like unity, customer attentiveness, and entrepreneurial drive?

The problem for Kmart and other wannabe Wal-Marts is what Lippman and Rumelt refer to as *causal ambiguity*.[20] The more multidimensional a firm's competitive advantage and the more each dimension of competitive advantage is based on complex bundles of organizational capabilities rather than individual resources, the more difficult it is for a competitor to diagnose the determinants of success. The outcome of causal ambiguity is *uncertain imitability*: where there is ambiguity associated with the causes of a competitor's success, any attempt to imitate that strategy is subject to uncertain success.

Acquiring Resources and Capabilities

Having diagnosed the sources of an incumbent's competitive advantage, the imitator can mount a competitive challenge only by assembling the resources and capabilities necessary for imitation. As we saw in Chapter 5, a firm can acquire resources and capabilities in two ways: it can buy them or it can build them. The period over which a competitive advantage can be sustained depends critically on the time it takes to acquire and mobilize the resources and capabilities needed to mount a competitive challenge.

There is little to add here to the discussion of transferability and replicability in Chapter 5. The ability to buy resources and capabilities from outside factor markets depends on their transferability between firms. Even if resources are mobile, the market for a resource may be subject to transaction costs – costs of buying and selling arising from search costs, negotiation costs, contract enforcement costs, and transportation costs. Transaction costs are greater for highly differentiated (or "idiosyncratic") resources.[21]

The alternative to buying a resource or capability is to create it through internal investment. As we noted in Chapter 5, where capabilities are based on organizational routines, accumulating the coordination and learning required for their efficient operation can take considerable time.

Businesses that require the integration of a number of complex, team-based routines may take years to reach the standards set by industry leaders. GM's attempt to transfer Toyota-style, team-based production from its NUMMI joint venture at Fremont, California, to the GM Van Nuys plant 400 miles to the south involved complex problems of learning and adjustment that remained unsolved two years after the program had begun.[22]

Conversely, where a competitive advantage does not require the application of complex, firm-specific resources, imitation is likely to be easy and fast. In financial services, many new products such as money market checking accounts, exchange traded funds, zero coupon bonds, interest rate swaps, and other derivatives require resources and capabilities that are widely distributed among banks. Hence, imitation of financial innovations is swift. Despite the boom in the demand for personal organizers in the 1990s, the originator, Filofax, faced many imitators. In 2001, Filofax was sold for a mere £17 million.

First-mover Advantage

A firm's ability to challenge an incumbent depends on the extent and the sources of first-mover advantage in the market. The idea of first-mover advantage is that the initial occupant of a strategic position or niche gains access to resources and capabilities that a follower cannot match. The simplest form of first-mover advantage is a patent or copyright. First movers can also gain preferential access to scarce resources. For example, Starbucks has taken prime locations in shopping malls and airports for its coffee shops. First movers may also be able to use the profit streams from their early entry to build resources and capabilities more rapidly than latecomers.[23]

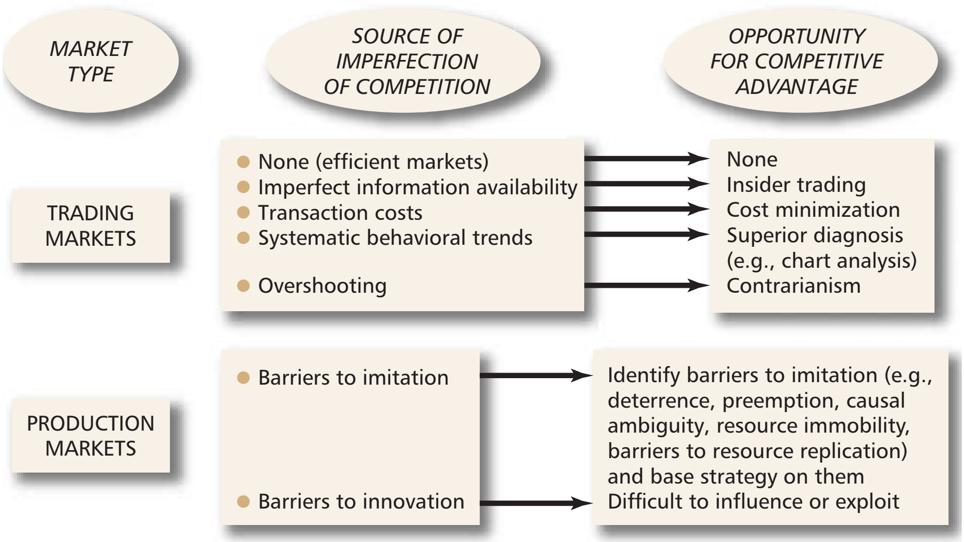
We shall return to the issue of first-mover versus follower advantages when we consider competitive advantage in emerging and technology-based industries (Chapter 11).

Competitive Advantage in Different Market Settings

Profiting from competitive advantage requires that the firm first establishes a competitive advantage, and then sustains its advantage for long enough to reap the rewards. To identify opportunities for establishing and sustaining competitive advantage requires that we understand the competitive process in the specific market. For competitive advantage to exist, there must be some imperfection of competition. To understand these imperfections in the competitive process, we need to identify the types of resources and capabilities necessary to compete and the circumstances of their availability.

Our initial discussion of the nature of business in Chapter 1 identified two types of value-creating activity: trading and production. Trading involves arbitrage across space (trade) and time (speculation). Production involves the physical transformation of inputs into outputs. These different types of business activity correspond to different market types: trading markets and production markets (see Figure 7.3). We begin with a discussion of a special type of trading market: an efficient market.

FIGURE 7.3 Competitive advantage in different industry settings: trading and production



Efficient Markets: The Absence of Competitive Advantage

In Chapter 3, we introduced the concept of perfect competition. Perfect competition exists where there are many buyers and sellers, no product differentiation, no barriers to entry or exit, and free flow of information. In equilibrium, all firms earn the competitive rate of profit, which equals the cost of capital. The closest real-world examples of perfect competition are financial and commodity markets (for example, the markets for securities, foreign exchange, and grain futures). These markets are sometimes described as *efficient*. An *efficient market* is one in which prices reflect all available information. Because prices adjust instantaneously to newly available information, no market trader can expect to earn more than any other. Any differences in *ex post* returns reflect either different levels of risk selected by different traders or purely random factors (luck). Because all available information is reflected in current prices, no trading rules based on historical price data or any other available information can offer excess returns: it is not possible to "beat the market" on any consistent basis. In other words, competitive advantage is absent.

The absence of competitive advantage in efficient markets can be linked to resource availability. If financial markets are efficient, it is because only two types of resource are required to participate – finance and information. If both are equally available to all traders, there is no basis for one to gain competitive advantage over another.

Competitive Advantage in Trading Markets

For competitive advantage to exist, imperfections (or "inefficiencies") must be introduced into the competitive process. Focusing on the relatively simple case of trading markets, let us introduce different sources of imperfection to the competitive process, showing how these imperfections create opportunities for competitive advantage, and how the imperfections relate to the conditions of resource availability.

Imperfect Availability of Information Financial markets (and most other trading markets) depart from the conditions for efficiency because of imperfect availability of information. Competitive advantage, therefore, depends on superior access to information. The most likely source of superior information is privileged access to private information. Trading on the basis of such information normally falls within the restrictions on "insider trading." Though insider information creates advantage, such competitive advantage tends to be of short duration. Once a market participant begins acting on the basis of insider information, other operators are alerted to the existence of the information. Even though they may not know its content, they are able to imitate the behavior of the market leader. A commonly followed strategy in stock markets is to detect and follow insider transactions by senior company executives.

Transaction Costs If markets are efficient except for the presence of transaction costs, then competitive advantage accrues to the traders with the lowest transaction costs. In stock markets, low transaction costs are attained by traders who economize on research and market analysis and achieve efficient portfolio diversification. Studies of mutual fund performance show that, on average, managed funds underperform index funds and the amount of that underperformance is roughly equal to the additional expenses incurred by the managed funds.[24]

Systematic Behavioral Trends If the current prices in a market fully reflect all available information, then price movements are caused by the arrival of new information and follow a random walk.[25] If, however, other factors influence price movements, there is scope for a strategy that uses an understanding of how prices really do move. Some stock market anomalies are well documented, notably the "small firm effect," the "January effect," and "weekend effects."[26] More generally, there is evidence that prices in financial markets follow systematic patterns that are the result of "market psychology," the trends and turning points of which can be established from past data. Chart analysis uses hypotheses concerning the relationship between past and future price movements for forecasting. Standard chartist tools include Elliott wave theory, Gann theories, momentum indicators, and patterns such as "support and resistance levels," "head and shoulders," "double tops," "flags," and "candlesticks." Despite mixed evidence on the success of chart analysis in financial markets,[27] systematic behavioral trends do occur in most markets, which implies that competitive advantage is gained by traders with superior skill in diagnosing such behavior.

Overshooting One well-documented behavioral aberration is the propensity of market participants to overreact to new information, with the result that prices overshoot.[28] Such overreaction is typically the result of imitative behavior resulting in the creation of bandwagon effects. On the assumption that overshooting is temporary and is eventually offset by an opposite movement back to equilibrium, then advantage can be gained through a contrarian strategy: doing the opposite of the mass-market participants. Two of the world's richest men, Warren Buffett (number 2) and Prince Alwaleed bin Talal Alsaud (number 8), are prominent contrarians. Both have made their fortunes by opposing market forces and acquiring large stakes in temporarily depressed companies.

Competitive Advantage in Production Markets

The transitory nature of competitive advantage in trading markets is a result of the characteristics of the resources required to compete: finance and information. Finance is a relatively homogeneous resource that is widely available. Information, although highly differentiated, is transferable easily and at very low cost; hence, the competitive advantage it offers tends to be fleeting.

Production markets are quite different. Production activities require complex combinations of resources and capabilities, and these resources and capabilities are highly differentiated. The result, as we have noted, is that each producer possesses a unique combination of resources and capabilities. The greater the heterogeneity of firms' endowments of resources and capabilities, the greater the potential for competitive advantage. In the European airline industry, the growing diversity of companies – state-owned airlines (e.g. Alitalia), privately owned international airlines (British Airways), budget airlines (Ryanair), regional carriers (Skyways) and charter airlines (Monarch) – has expanded opportunities for competitive advantage and widened the profit differentials between them.

Differences in resource endowments among firms also have an important impact on the process by which competitive advantage is eroded. Where firms possess very similar bundles of resources and capabilities, imitation of the competitive advantage of the incumbent firm is most likely. Where resource bundles are highly differentiated, competition is likely to be less direct. Using different resources and capability, a firm may substitute a rival's competitive advantage.[29] For example:

- Canon substituted for Xerox's technical service capability in copiers by developing high-reliability copiers that needed little service.
- Online discount brokers have used the internet to substitute for networks of retail offices of established brokerage companies, such as Merrill Lynch and Charles Schwab, and online research to substitute for the established brokers' research departments.

Since substitute competition can come from many directions – alternative resources, technological innovations, new business models – it is difficult to counter. The key is to persuade potential competitors that substitution is unlikely to be profitable. This can be achieved through committing the firm to continuous improvement, locking in customers and suppliers, and market deterrence.[30]

Industry Conditions Conducive to Emergence and Sustaining of Competitive Advantage In analyzing the potential for creating and sustaining advantage in production markets, I have focused on the role of interfirm differences in resources. However, the characteristics of the industry also play a role in determining the means by which competitive advantage emerges and is eroded.

Thus, the opportunities for establishing competitive advantage in production markets depend on the number and diversity of the sources of change in the business environment. Industries subject to a wide range of unpredictable external changes offer a multiplicity of opportunities for competitive advantage. Consider the wireless telecommunication services. The industry is subject to a vast array of dynamic forces – regulatory change, technological change, changing customer preferences, to mention but a few. All of these forces offer opportunities for competitive advantage. The complexity of the industry also determines the variety of opportunities for competitive advantage: complex products such as IT consulting offer greater scope than cement.

The extent to which competitive advantage is eroded through imitation will also depend on the characteristics of the industry. For example:

- *Information complexity*. The more difficult it is to diagnose the basis of the success of advantaged firms, the more difficult it is to imitate their success. Industries where competitive advantage is based on complex, multilayered capabilities tend to have more sustainable competitive advantages. In movie production, the long-established leadership of studios such as Paramount, Columbia (Sony), Universal, Fox, and Disney reflects the difficult-to-diagnose secrets of producing "blockbuster" movies, even though the individual resources (scripts, actors, technicians, and directors) can be hired from the market.
- *Opportunities for deterrence and preemption*. Industries where the market is small (relative to the minimum efficient scale of production), essential resources are scarce or tightly held, or economies of learning are important, allow first movers to establish and sustain competitive advantage by preemption and deterrence.
- *Difficulties of resource acquisition*. Industries differ according to the availability of strategically important resources. In the bicycle messenger business in London or New York, competitive advantage is easily eroded because the key resources (cyclists, wireless communication, and marketing) are easily acquired. The securities underwriting business (whether for IPOs or corporate bond issues) offers more sustainable advantages because the key resources and capabilities (market expertise, reputation, relationships, retail distribution links, and massive financial reserves) are difficult to assemble.

Types of Competitive Advantage: Cost and Differentiation

A firm can achieve a higher rate of profit (or potential profit) over a rival in one of two ways: either it can supply an identical product or service at a lower cost, or it can supply a product or service that is differentiated in such a way that the customer is willing to pay a price premium that exceeds the additional cost of the differentiation. In the former case, the firm possesses a cost advantage; in the latter, a differentiation advantage. In pursuing cost advantage, the goal of the firm is to become the cost leader in its industry or industry segment. Cost leadership requires that the firm "must find and exploit all sources of cost advantage . . . [and] . . . sell a standard, no-frills product."[31] Differentiation by a firm from its competitors is achieved "when it provides something unique that is valuable to buyers beyond simply offering a low price."[32] Figure 7.4 illustrates these two types of advantage.

The two sources of competitive advantage define two fundamentally different approaches to business strategy. A firm that is competing on low cost is distinguishable from a firm that competes through differentiation in terms of market positioning, resources and capabilities, and organizational characteristics. Table 7.2 outlines some of the principal features of cost and differentiation strategies.

By combining the two types of competitive advantage with the firm's choice of scope – broad market versus narrow segment – Michael Porter has defined three generic strategies: cost leadership, differentiation, and focus (see Figure 7.5). Porter views cost leadership and differentiation as mutually exclusive strategies. A firm that attempts to pursue both is "stuck in the middle":

> *The firm stuck in the middle is almost guaranteed low profitability. It either loses the high-volume customers who demand low prices or must bid away its profits to get this business from the low-cost firms. Yet it also loses high-margin business – the cream – to the firms who are focused on high-margin targets or have achieved differentiation overall. The firm that is stuck in the middle also probably suffers from a blurred corporate culture and a conflicting set of organizational arrangements and motivation system.*[33]

In practice, few firms are faced with such stark alternatives. Differentiation is not simply an issue of "to differentiate or not to differentiate." All firms must make

FIGURE 7.4 Sources of competitive advantage

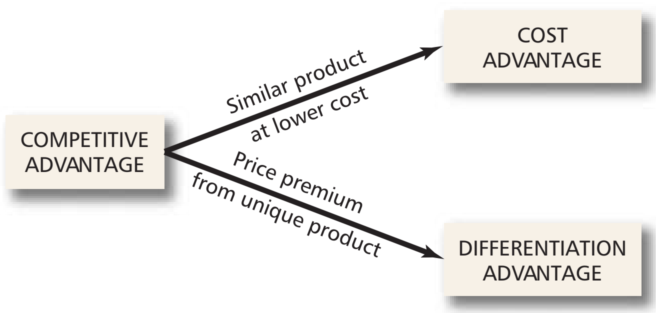
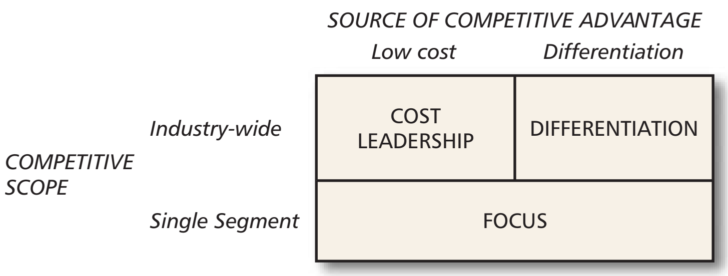


TABLE 7.2 Features of Cost Leadership and Differentiation Strategies

Generic strategy	Key strategy elements	Resource and organizational requirements
Cost leadership	Scale-efficient plants Design for manufacture Control of overheads and R&D Process innovation Outsourcing (especially overseas) Avoidance of marginal customer accounts	Access to capital Process engineering skills Frequent reports Tight cost control Specialization of jobs and functions Incentives linked to quantitative targets
Differentiation	Emphasis on branding advertising, design, service, quality, and new product development	Marketing abilities Product engineering skills Cross-functional coordination Creativity Research capability Incentives linked to qualitative performance targets

FIGURE 7.5 Porter's generic strategies



decisions as to which customer requirements to focus on, and where to position their product or service in the market. A cost leadership strategy typically implies a narrow-line, limited-feature, standardized offering. However, such a positioning does not necessarily imply that the product or service is an undifferentiated commodity. In the case of IKEA furniture and Southwest Airlines, a low-price, no-frills offering is also associated with clear market positioning and a unique brand image. The VW Beetle shows that a low-cost, utilitarian, mass-market product can achieve cult status. At the same time, firms that pursue differentiation strategies cannot be oblivious to cost.

In most industries, market leadership is held by a firm that maximizes customer appeal by reconciling effective differentiation with low cost – Toyota, Dell, and Canon are classic examples. In many industries, the cost leader is not the market leader but is a smaller competitor with minimal overheads, nonunion labor, and cheaply acquired assets. In oil refining, the cost leaders tend to be independent refining companies rather than integrated giants such as Exxon Mobil or Shell. In car rental, the cost leader is more likely to be Rent-A-Wreck (a division of Bundy American Corporation) rather than Hertz or Avis.

Kim and Mauborgne view the simultaneous pursuit of differentiation and low cost as a key element in the creation of "blue ocean" opportunities. Common to the success of Japanese companies in consumer goods industries such as cars, motorcycles, consumer electronics, and musical instruments has been the ability to reconcile low costs with high quality and technological progressiveness. New management techniques have helped. Total quality management has exploded the myth that there is a tradeoff between high quality and low cost. Innovations in manufacturing technology and manufacturing management have produced simultaneous increases in productivity and quality.[34] Tom Peters observes an interesting asymmetry:

> *Cost reduction campaigns do not often lead to improved quality; and, except for those that involve large reductions in personnel, they don't usually result in long-term lower costs either. On the other hand, effective quality programs yield not only improved quality but lasting cost reductions as well.*[35]

Having conquered the cost/quality tradeoff, companies such as Honda, Toyota, Sony, and Canon have gone on to reconcile world-beating manufacturing efficiency and outstanding quality with flexibility, fast-paced innovation, and effective marketing.

Summary

Making money in business requires establishing and sustaining competitive advantage. Both these conditions for profitability demand profound insight into the nature and process of competition within a market. Competitive advantage depends critically on the presence of some imperfection in the competitive process – under perfect competition, profits are transitory. Our analysis of the imperfections of the competitive process has drawn us back to the resources and capabilities that are required to compete in different markets and to pursue different strategies. Sustaining competitive advantage depends on the existence of isolating mechanisms: barriers to rivals' imitation of successful strategies. The greater the difficulty that rivals face in accessing the resources and capabilities needed to imitate or substitute the competitive advantage of the incumbent firm, the greater the sustainability of that firm's competitive advantage. Hence, one outcome of our analysis is to reinforce the argument made in Chapter 5: the characteristics of a firm's resources and capability are fundamental to its strategy and its performance in decision making and long-term success.

In the next two chapters, we analyze the two primary dimensions of competitive advantage: cost advantage and differentiation advantage. In both of these areas we emphasize the importance of a deep understanding of both the firm and its industry environment. To this end, it is useful to disaggregate the firm into a series of separate but interlinked activities. A useful and versatile framework for this purpose is the value chain, which is an insightful tool for understanding the sources of competitive advantage in an industry, for assessing the competitive position of a particular firm, and for suggesting opportunities to enhance a firm's competitiveness.

Self-Study Questions

1 Figure 7.1 implies that stable industries where firms have similar resources and capabilities offer less opportunity for competitive advantage than industries where change is rapid and firms are heterogeneous. Select examples of these two types of industry, and look for any evidence that interfirm profit differences are wider in dynamic, heterogeneous industries than in stable, homogenous industries.

2 Apple has been successful in dominating the market for both MP3 players with its iPod, and for music downloads with its iTunes service. How can Apple best sustain its leadership in these markets?

3 Illy, the Italian-based supplier of quality coffee and coffee-making equipment, is launching an international chain of gourmet coffee shops. What advice wouold you offer Illy for how it can best build competitive advantage in the face of Starbucks' dominance of this market?

4 Do you believe that some mutual funds ("unit trusts" in British parlance) can deliver consistently superior returns (once adjusted for risk)? If so, what is the basis for such superior performance and what can fund managers do to achieve superior performance?

5 Target (the US discount retailer), H&M (the Swedish fashion clothing chain), and Primark (the UK discount clothing chain) have pioneered "cheap chic" – combining discount store prices with fashion appeal. What are the principal challenges of designing and implementing a "cheap chic" strategy? Design a "cheap chic" strategy for a company entering another market, e.g. restaurants, sports shoes, cosmetics, or office furniture.

Notes

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2 In long-run industry equilibrium, firms with competitive disadvantage are eliminated.

3 According to Edith Penrose (*Theory of the Growth of the Firm*, Oxford: Blackwell, 1959): "Entrepreneurial activity involves identifying opportunities within the economic system."

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