

# 7 The Sources and Dimensions of Competitive Advantage

If you don't have a competitive advantage—don't compete!

JACK WELCH, CEO, GENERAL ELECTRIC 1981–2001.

## OUTLINE

- ◆ **Introduction and Objectives**
  - ◆ **How Is Competitive Advantage Established?**
    - External Sources of Competitive Advantage
    - Internal Sources of Competitive Advantage: Strategic Innovation through Business Models and Blue Ocean Strategy
  - ◆ **How Is Competitive Advantage Sustained?**
  - ◆ **Cost Advantage**
    - The Sources of Cost Advantage
    - Using the Value Chain to Analyze Costs
  - ◆ **Differentiation Advantage**
    - The Nature and Significance of Differentiation
    - Analyzing Differentiation: The Demand Side
    - Analyzing Differentiation: The Supply Side
    - Bringing It All Together: The Value Chain in Differentiation Analysis
  - ◆ **Can Firms Pursue Both Cost and Differentiation Advantage?**
  - ◆ **Summary**
  - ◆ **Self-Study Questions**
  - ◆ **Notes**
-

## Introduction and Objectives

In this chapter, we integrate and develop the elements of competitive advantage that we have analyzed in previous 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 build 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: the determinants of 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 first explore the dynamics of competitive advantage, examining the processes through which competitive advantage is created and destroyed. This gives us insight into how competitive advantage can be attained and sustained. We then look at the two primary dimensions of competitive advantage: cost advantage and differentiation advantage and develop systematic approaches to their analysis.

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

- ◆ Identify how a firm can create competitive advantage—including the roles that anticipation, agility, business model innovation, and blue ocean strategies can play.
- ◆ Identify how a firm can sustain competitive advantage—including the use of different types of *isolating mechanism*.
- ◆ Use cost analysis to identify the sources of cost advantage in an industry, assess a firm's relative cost position, and recommend strategies to enhance cost competitiveness.
- ◆ Use differentiation analysis to identify the sources of differentiation and formulate strategies that create differentiation advantage.
- ◆ Appreciate the feasibility of pursuing both cost and differentiation advantage.

## How Is Competitive Advantage Established?

**Competitive advantage** refers to a firm's ability to outperform its rivals. Most of us can recognize competitive advantage when we see it: Walmart in discount retailing, Vestas in wind turbines, Google in online search, and Embraer in regional jets. Yet, defining competitive advantage is troublesome. Competitive advantage can be defined broadly in terms of a firm's superiority in creating value for its stakeholders, or more narrowly in terms of profitability. Because of the difficulties in identifying and measuring total value creation (see the section on "Strategy as a Quest for Value" in Chapter 2), I shall

take the simple approach and define competitive advantage as: *a firm's potential to earn a higher rate of profit than its direct competitors*. I emphasize the *potential* for superior profitability rather than *actual* superior profitability to take account of the fact that competitive advantage may not be revealed in higher profitability—a firm may forgo current profit in favor of investing in market share, technology, customer loyalty, or executive perks. For example, over the ten-year period, 1998–2007, Amazon earned a net loss, despite its obvious competitive advantage in online retailing. Amazon had foregone profit in favor of sales growth.

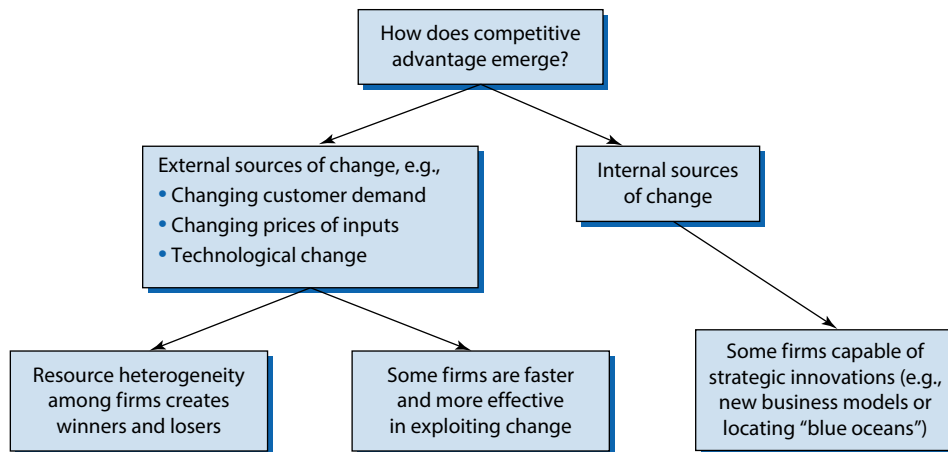
In viewing competitive advantage as the result of matching internal strengths to external success factors, I may have conveyed the notion of competitive advantage as something static and stable. In fact, as we observed in Chapter 4 when discussing competition as a process of “creative destruction,” competitive advantage is a disequilibrium phenomenon: it is created by change and, once established, it sets in motion the competitive process that leads to its destruction.<sup>1</sup> The changes that generate competitive advantage can be either internal or external. Figure 7.1 depicts the basic relationships.

## External Sources of Competitive Advantage

External changes create competitive advantage when they have differential effects on companies because of their different resources and capabilities or strategic positioning. For example, by reducing subsidies for renewable energy, the tax bill passed by the US Congress in December 2017, will enhance the competitive advantage of power producers that use fossil fuels, such as Duke Energy and AEP, over wind and solar power producers such as Terra-Gen and Caithness Energy.

The greater the magnitude of the external change and the greater the difference in the strategic positioning of firms, the greater the propensity for external change to generate competitive advantage, as indicated by the dispersion of profitability among the firms within an industry. The world's beer brewing industry has a relatively stable external environment and the leading firms—AB Inbev, Carlson, Heineken, and Molson Coors—pursue similar strategies with similar resources and

**FIGURE 7.1** The emergence of competitive advantage



capabilities: differences in profitability among this group tend to be small and stable. The major toy companies (Mattel, Lego, Hasbro, Bandai Namco, and MGA Entertainment), on the other hand, comprise a heterogeneous group that experience unpredictable shifts in consumer preferences, resulting in wide and variable profitability differences.

The competitive advantage that arises from external change also depends on firms' ability to respond to change. Any external change creates entrepreneurial opportunities that will accrue to the firms that exploit these opportunities most effectively. Entrepreneurial responsiveness involves one of two key capabilities:

- *Anticipation.* Over its 100-year history, IBM has demonstrated a remarkable ability to renew its competitive advantage through anticipating, and then taking advantage of, many of the major shifts in the IT sector: the birth of the mainframe, the rise of personal computing, advent of the internet, migration of value from hardware to software and services, cloud computing, big data, and quantum computing. Conversely, Hewlett-Packard has been less adept in recognizing and responding to these changes.
- *Agility.* As markets become more turbulent and unpredictable, quick-response capability has become increasingly important as a source of competitive advantage. Quick responses require information. As conventional economic and market forecasting has become less effective, so companies rely increasingly on “early-warning systems” through contact with customers, suppliers, and competitors, then compress their cycle times so that information can be acted upon speedily. Zara, the retail fashion chain owned by the Spanish company Inditex, has built a vertically integrated supply chain that cuts the time between a garment's design and retail delivery to under three weeks (against an industry norm of three to six months).<sup>2</sup> This emphasis on speed as a source of competitive advantage was popularized by the Boston Consulting Group's concept of *time-based competition*<sup>3</sup> and in the surge of interest by consultants and academics in *strategic agility*.<sup>4</sup>

## Internal Sources of Competitive Advantage: Strategic Innovation through Business Models and Blue Ocean Strategy

Competitive advantage may also be generated internally through innovation which creates competitive advantage for the innovator while undermining previously established competitive advantages—the essence of Schumpeter's “creative destruction.”<sup>5</sup> Although innovation is typically thought of as applications of new technology, our emphasis here is *strategic innovation*—new approaches to serving customers and competing with rivals.

**Business Model Innovation** Strategic innovation has long been recognized as an important source of competitive advantage. Four decades ago, McKinsey & Co. drew the distinction between “same game” strategies (“playing by the traditional rules”) and “new game” strategies (“rewriting them completely”).<sup>6</sup> More recently, the term *business model innovation* has been used to describe the introduction of novel approaches to creating and/or capturing value within an industry.<sup>7</sup> Its importance in creating competitive advantage is indicated by research showing business model innovation to be a more potent profit generator than either product or process innovation.<sup>8</sup> It has been argued that

## STRATEGY CAPSULE 7.1

## Examples of Business Model Innovations

Business model innovations are typically associated with e-commerce businesses such as Google, eBay, Facebook, Amazon, and Spotify. Yet, many of these business models are variants on business models established much earlier. Significant business model innovations include the following:

- ◆ *Free content supported by paid advertising* originated with US commercial radio at the beginning of the 1920s.
- ◆ *Platform business models*. A platform is an interface between two sets of platform users. The first platform businesses were auction houses. Sotheby's was established in 1744, Christies in 1766.
- ◆ *Shared-ownership models* used by Airbnb, Zipcar, Netjets, and the like have their origins in real estate timeshares (pioneered by the Swiss company, Hapimag, during the 1960s).
- ◆ *Franchising*. The system of local licensed distributors, each with defined exclusive territories, is attributed to the Singer Sewing Machine Company which introduced its system in the 1880s.
- ◆ *Consumer cooperatives*. The Rochdale Society of Equitable Pioneers' cooperative grocery store was not the world's first consumer cooperative, but created a model for future cooperatives.
- ◆ *Microfinance*—small loans to low-income business owners—was developed by Muhammad Yunus's Grameen Bank during the 1970s.
- ◆ *Tied products (razor-and-blades) model* involving below-cost pricing of the durable item and premium pricing of consumables, was introduced by Gillette's competitors during the 1910s, then copied by Gillette.
- ◆ *Mail order*. The first major mail order retailer was Montgomery Ward, established in 1872.

most new companies entering the Fortune 500 between 1997 and 2007 owed their success to innovative business models.<sup>9</sup> While business model innovations continue to create new corporate giants and transform entire sectors, very often these innovative business models are a variation on a theme or the transfer of an existing business model from a different sector (see Strategy Capsule 7.1).

Business model innovations can be classified in different ways. A study by IBM identified three generic types:

- *New industry models*—reconfigurations of the conventional industry value chain such as Dell's direct sales model for PCs or Zara's vertically integrated fast-fashion model.
- *New revenue models*—changing the value proposition, the target audience or pricing strategy. In the 1980s, Rolls Royce introduced "Power by the Hour": instead of buying jet engines outright, airlines could pay usage based fees for engines, maintenance, and spares and other support services. Virgin America introduced a novel customer offering comprising low fares and a differentiated in-flight experience.
- *New enterprise models*—involve reconfiguring enterprise boundaries and partner relationships. Apple's iPhone with outsourced manufacture and network of application providers created a new model of the smart-phone business.

Conceiving of business model innovations is much easier than implementing them. To the extent that most business model innovations are variations on existing themes, then analogical reasoning is a powerful tool for revealing new possibilities.<sup>10</sup> Office products retailer, Staples, was established as the “Toys ‘R’ Us for office supplies”; cannabis infrastructure company, Diego Pellicer Worldwide, Inc., envisages itself as the “Starbucks of marijuana.”

Implementing business model innovations comes up against the resistance created by commitment to the prevailing business model. Established companies may be reluctant to experiment with new business models because of their adherence to current asset allocations or to senior executives’ perceptions of the “dominant logic” of their business.<sup>11</sup> However, using the lexicon of business models may assist in overcoming these barriers: business models offer a narrative that can be used, not only to simplify cognition, but also as a communication device creating a sense of legitimacy around the initiative.<sup>12</sup> Moreover, adopting new business models does not necessarily involve abandoning existing models—increasingly companies are getting used to operating multiple models: Netflix offers both video streaming and DVDs by mail.

## STRATEGY CAPSULE 7.2

### Blue Ocean Strategy

Kim and Mauborgne argue that the best value-creating opportunities for business lie not in existing industries following conventional approaches to competing (what they refer to as “red oceans”), but seeking uncontested market space. These “blue oceans” may be entirely new industries created by technological innovation (such as artificial intelligence and nanotechnology), but are more likely to be the creation of new market space within existing industries using existing technologies. This may involve:

- ◆ New customer segments for existing products, for example, Tesla’s Powerwall battery for electrical storage in the home.
- ◆ Reconceptualization of existing products, for example, Mark Zuckerberg’s reconceptualization of a printed Facebook of class members as an online, interactive, and social platform.
- ◆ Novel recombinations of product attributes and reconfigurations of established value chains that

establish new positions of competitive advantage, for example, Dell’s integrated system for ordering, assembling, and distributing PCs, which permitted unprecedented customer choice and speed of fulfillment.

The *strategy canvas* is a framework for developing blue ocean strategies. The horizontal axis shows the different product characteristics along which the firms in the industry compete; the vertical axis shows the amount of each characteristic a firm offers its customers. Starting with the value line showing the industry’s existing offerings, the challenge is to identify a strategy that can provide a novel combination of attributes. This involves four types of choice:

- ◆ Raise: What factors should be raised well above the industry’s standard?
- ◆ Eliminate: Which factors that the industry has long competed on should be eliminated?
- ◆ Reduce: Which factors should be reduced well below the industry’s standard?

Pursuing multiple business models can offer companies the benefits of both synergy and risk spreading.<sup>13</sup>

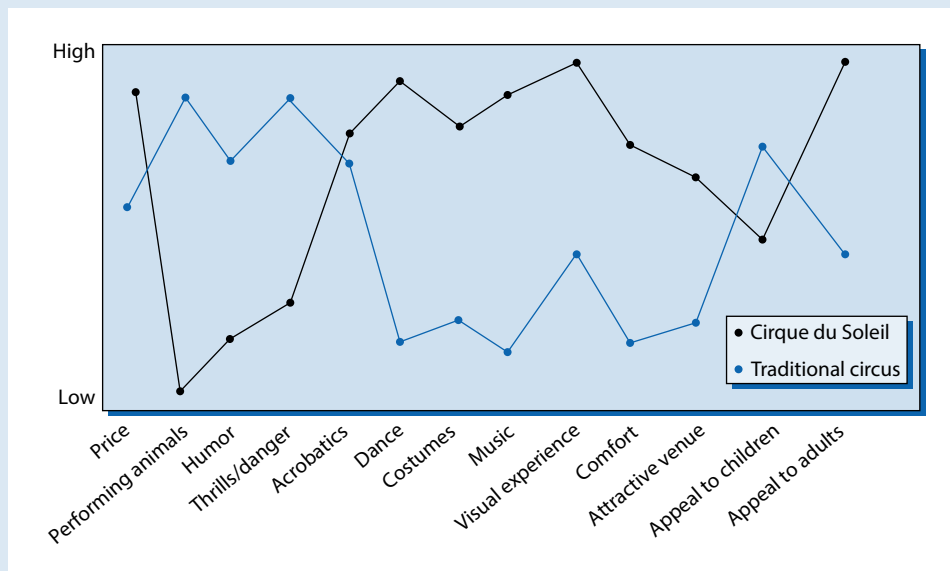
**Blue Ocean Strategy** An alternative approach to identifying the potential for strategic innovation is that developed by Insead's Kim Chan and Renee Mauborgne. Their **blue ocean strategy** involves a quest for “uncontested market space.”<sup>14</sup> Creating untapped market space doesn't necessarily require finding new market opportunities well beyond existing industry boundaries, blue oceans can also be created within existing markets. The challenge is “to create new rules of the game by breaking the existing value/cost trade-off.”<sup>15</sup> One approach is to combine performance attributes that were previously viewed as conflicting. Thus, Virgin America offers the low fares typical of budget airlines together with inflight services that are superior to those of most legacy carriers. Indeed, common to many blue ocean strategies is offering superior customer value through reconciling low price with differentiation. Strategy Capsule 7.2 outlines how the concept of blue ocean strategy can help companies pursue strategic innovation.

- ◆ Create: Which factors should be created that the industry has never offered?

**Source:** Based upon W. C. Kim and R. Mauborgne, *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant* (Boston: Harvard Business School Press, 2005).

Figure 7.2 compares value lines for Cirque du Soleil and a traditional circus.

**FIGURE 7.2** The strategy canvas: Value lines for Cirque du Soleil and the traditional circus



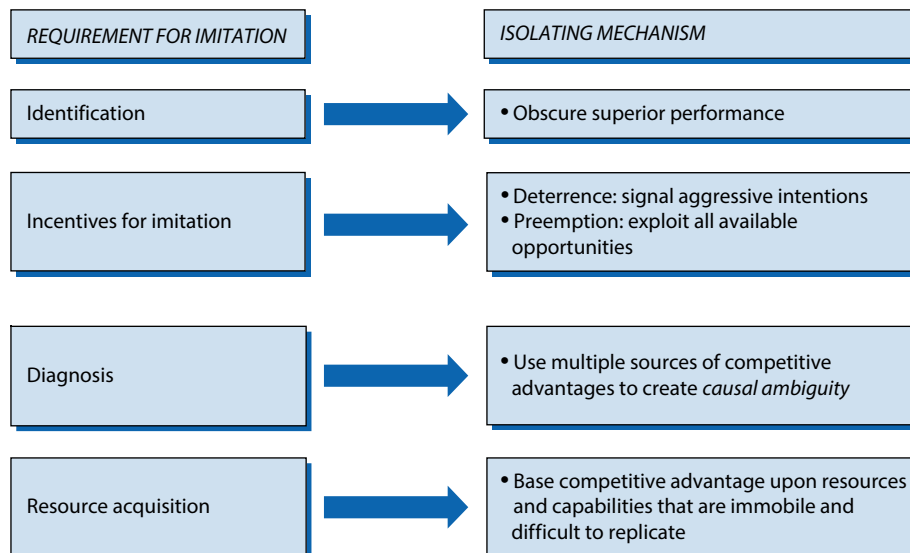
## How Is Competitive Advantage Sustained?

Once established, competitive advantage is eroded 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; hence, for competitive advantage to be sustained over time, *barriers to imitation* must exist. Rumelt uses the term **isolating mechanisms** to describe the barriers that prevent the erosion of a business's superior profitability.<sup>16</sup> The tendency for profit differences between competitors to persist for periods of a decade or more suggests that isolating mechanisms can be very effective.<sup>17</sup>

To identify the sources of isolating mechanisms, let us examine the process of competitive imitation. For one firm to successfully imitate the strategy of another, it must meet four conditions: it must identify the competitive advantage of a rival, it must have an incentive to imitate, it must be able to diagnose the sources of the rival's competitive advantage, and it must be able to acquire the resources and capabilities necessary for imitation. At each stage, the incumbent can create isolating mechanisms to impede the would-be imitator (Figure 7.3).

**Obscuring Superior Performance** A simple barrier to imitation is to obscure the firm's superior profitability. According to George Stalk, former managing director of the Boston Consulting Group: "One way to throw competitors off balance is to mask high performance so rivals fail to see your success until it's too late."<sup>18</sup> One of the attractions of private company status is avoiding disclosure of financial performance. Few food processors realized the profitability of canned cat and dog food until the UK Monopolies Commission revealed that the leading firm, Pedigree Petfoods (a subsidiary of Mars, Inc.), earned a return on capital employed of 47%.<sup>19</sup>

**FIGURE 7.3** Sustaining competitive advantage: Types of isolating mechanism



In order to discourage new competitors, companies may forgo maximizing their short-term 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.<sup>20</sup>

***Deterrence and Preemption*** A firm may avoid competition by persuading potential rivals that imitation will be unprofitable. Deterrence (as we discussed in the section on “Game Theory” in Chapter 4) involves making threats that competitive incursions will be resisted vigorously.<sup>21</sup> For deterrence to work, threats must be clearly signaled, backed by commitment, and credible. Following the expiration of its NutraSweet patents in 1987, Monsanto fought an aggressive price war against the Holland Sweetener Company. Although costly, this gave Monsanto a reputation for aggression that deterred other would-be entrants into the aspartame market.<sup>22</sup>

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 may include:

- Proliferation of product varieties by market leaders leaving few niches for new entrants and smaller rivals to occupy. Between 1950 and 1972, for example, the six leading suppliers of breakfast cereals introduced 80 new brands into the US market.<sup>23</sup>
- Investing in underutilized production capacity can be especially discouraging to rivals and potential entrants. Part of Monsanto’s strategy to protect its NutraSweet business were heavy investments in aspartame plants.
- Patent proliferation can limit competitors’ innovation opportunities. In 1974, Xerox’s dominant market position in plain-paper copiers was protected by a wall of over 2000 patents, most of which were not used. When IBM introduced its first copier, Xerox sued it for infringing 22 of these patents.<sup>24</sup>

***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. For Kmart or Target to imitate Walmart’s success in discount retailing, they must first understand what makes Walmart so successful. Walmart does many things differently, but which of these differences are the critical determinants of superior profitability?

Lippman and Rumelt identify this problem as **causal ambiguity**: when a firm’s competitive advantage is multidimensional and is based on complex bundles of resources and capabilities, it is difficult for rivals to diagnose the success of the leading firm. The outcome of causal ambiguity is *uncertain imitability*: if the causes of a firm’s success cannot be known for sure, successful imitation is uncertain.<sup>25</sup>

Recent research suggests that the problems of strategy imitation may run even deeper. We observed in Chapter 5 that capabilities are the outcome of complex combinations of resources and that multiple capabilities interact to confer competitive advantage. Research into complementarity among an organization’s activities suggests that these interactions extend across the whole range of management practices.<sup>26</sup> Strategy Capsule 7.3 describes Urban Outfitters as an example of a unique “activity system.” Where activities are tightly linked, complexity theory—NK modeling in particular—predicts that, within a particular competitive environment, a number of *fitness peaks*

## STRATEGY CAPSULE 7.3

## Urban Outfitters

Urban Outfitters, Inc. was founded in Philadelphia in 1976. By 2018, it operated 650 Urban Outfitters, Anthropologie, and Free People stores in 14 countries. The company targets, "Well-educated, urban-minded, young adults aged 18—30 through its unique merchandise mix and compelling store environment 'creating' a unified environment that establishes an emotional bond with the customer. Every element of the environment is tailored to the aesthetic preferences of our target customers. Through creative design, much of the existing retail space is modified to incorporate a mosaic of fixtures, finishes and revealed architectural details. In our stores, merchandise is integrated into a variety of creative vignettes and displays designed to offer our customers an entire look at a distinct lifestyle."

According to Michael Porter and Nicolaj Siggelkow, these management practices are both distinctive and

highly interdependent. The urban-bohemian-styled product mix, which includes clothing, furnishings, and gift items, is displayed within bazaar-like stores, each of which has a unique design. To encourage frequent customer visits, the layout of each store is changed every two weeks, creating a new shopping experience whenever customers return. Each practice makes little sense on its own, but together they represent a distinctive, integrated strategy. It may be possible to replicate the individual elements of Urban Outfitters' business system; the real challenge for an imitator integrating them into a cohesive whole.

**Source:** Urban Outfitters, Inc. 10-K Report to January 31, 2018; M. E. Porter and N. Siggelkow, "Contextuality within Activity Systems and Sustainable Competitive Advantage," *Academy of Management Perspectives* 22 (May 2008): 34–56.

will appear, each associated with a unique combination of strategic variables.<sup>27</sup> The implications for imitation is that to locate on the same fitness peak as another firm not only requires recreating a complex configuration of strategy, structure, management systems, leadership, and business processes, but also means that getting it just a little bit wrong may result in the imitator missing the fitness peak and finding itself in an adjacent valley.<sup>28</sup>

One of the challenges for the would-be imitator is deciding which management practices are generic best practices and which are *contextual*—they only work in combination with other management practices. For example, if Sears Holdings is considering which of Walmart's management practices to imitate in its Kmart stores, some practices (e.g., employees required to smile at customers, point-of-sale data transferred direct to the corporate database) are likely to be generically beneficial. Others, such as Walmart's "everyday low prices" pricing policy, low advertising sales ratio, and hub-and-spoke distribution are likely to be beneficial only when combined with other practices that ensure low costs.

**Acquiring Resources and Capabilities** Having diagnosed the sources of an incumbent's competitive advantage, the imitator's next challenge is to assemble the necessary resources and capabilities for imitation. As we saw in Chapter 5, a firm can acquire resources and capabilities either by buying them or by building them.

## STRATEGY CAPSULE 7.4

## Competitive Advantage in Different Market Settings

Competitive advantage arises where there are imperfections in the competitive process, which in turn result from the conditions under which essential resources and capabilities are available. Hence, by analyzing imperfections of competition, we can identify the sources of competitive advantage in different types of market. We distinguish between two types of value-creating activity: *trading* and *production*.

In trading markets, the limiting case is *efficient markets*, which correspond closely to perfectly competitive markets (e.g., the markets for securities, currencies, and commodity futures). If prices reflect all available information and adjust instantaneously to new information, no market trader can expect to earn more than any other. It is not possible to beat the market on any consistent basis—in other words competitive advantage is absent. This reflects the conditions of resource availability. Both of the resources needed to compete—finance and information—are equally available to all traders.

Competitive advantage in trading markets requires imperfections in the competitive process:

- ◆ Where there is an imperfect availability of information, competitive advantage results from superior access to information—hence the criminal penalties for insider trading in most advanced economies.
- ◆ Where transaction costs are present, competitive advantage accrues to the traders with the lowest transaction costs, hence the superior returns to low-cost index mutual funds over professionally managed funds. Vanguard's S&P 500 Index fund with

administrative costs of 0.07% annually has outperformed 90% of US equity mutual funds.

- ◆ If markets are subject to systematic behavioral trends (e.g., the *small firm effect* or the *January effect*), competitive advantage accrues to traders with superior knowledge of market psychology or of systematic price patterns (chart analysis). If markets are subject to bandwagon effects, competitive advantage can be gained in the short term by following the herd (momentum trading) and longer term by a contrarian strategy. Warren Buffett is a contrarian who is “fearful when others are greedy, and greedy when others are fearful.”

In production markets, the potential for competitive advantage is much greater because of the complex combinations of the resources and capabilities required, the highly differentiated nature of these resources and capabilities, and the imperfections in their supply. Within an industry, the more heterogeneous are firms' endowments of resources and capabilities, the greater the potential for competitive advantage. In the European electricity-generating industry, the growing diversity of players—utilities (EDF, ENEL), gas distributors (Gaz de France, Centrica), petroleum majors (Shell, ENI), independent power producers (AES, E.ON), and wind generators—has expanded opportunities for competitive advantage and widened the profit differentials between them.

Differences in resource endowments also influence the erosion of competitive advantage: the more similar are competitors' resources and capabilities, the easier is imitation.

The imitation barriers here are limits to the *transferability* and *replicability* of resources and capabilities (see Chapter 5, “Sustaining Competitive Advantage”). Strategy Capsule 7.4 shows how the resource requirements for competitive advantage differ across different market settings.

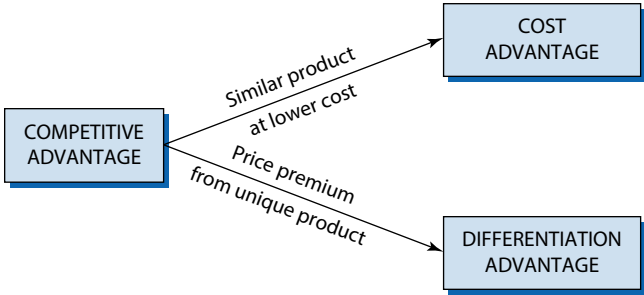
## Cost Advantage

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 the firm to “find and exploit all sources of cost advantage [and] sell a standard, no-frills product.”<sup>29</sup> 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.”<sup>30</sup> Figure 7.4 illustrates these two types of advantage. 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 (Figure 7.5).

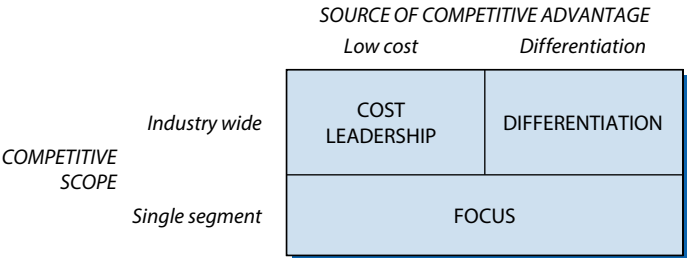
Historically, strategic management has emphasized cost advantage as the primary basis for competitive advantage in an industry. This focus on cost reflected the traditional emphasis by economists on price as the principal medium of competition. It also reflected the quest by large industrial corporations during the last century to exploit economies of scale and scope through investments in mass production and mass distribution. This preoccupation with cost advantage was reinforced during the 1970s and 1980s when the **experience curve** became a widely-used tool of strategy analysis (see Strategy Capsule 7.5).

Since then, increasing low-cost competition from emerging market countries has resulted in Western firms adopting a number of new approaches to cost reduction, including outsourcing, offshoring, process re-engineering, lean production, and organizational delaying.

**FIGURE 7.4** Sources of competitive advantage



**FIGURE 7.5** Porter’s generic strategies



## STRATEGY CAPSULE 7.5

## BCG and the Experience Curve

The experience curve has its basis in the systematic reduction in the time taken to build airplanes and Liberty ships during World War II. In studies ranging from bottle caps and refrigerators to long-distance calls and insurance policies, the Boston Consulting Group (BCG) observed a remarkable regularity in the reductions in unit costs with increased cumulative output. Its *law of experience* states: the unit cost of value added to a standard product declines by a constant percentage (typically between 15% and 30%) each time cumulative output doubles. (Where “unit cost of value added” is the unit cost of production less the unit cost of bought-in components and materials).<sup>a</sup> Figure 7.6 shows the experience curve for Ford’s Model T.

The experience curve has important implications for strategy. If a firm can expand its output faster than its competitors can, it can move down the experience curve more rapidly and open up a widening cost differential. BCG recommended that a firm’s primary strategic goal should be driving volume growth through increasing its market share. BCG identified Honda in motorcycles as

an exemplar of this strategy.<sup>b</sup> The benefits market share were supported by studies showing a positive relationship between profitability and market share.<sup>c</sup> However, association does not imply causation—it is likely that market share and profitability are both outcomes of some other source of competitive advantage—product innovation, or superior marketing.<sup>d</sup>

The weaknesses of the experience curve as a strategy tool are, first, it fails to distinguish several sources of cost reduction (learning, scale, process innovation); second, it presumes that cost reductions from experience are automatic—in reality they must be managed.

**Notes:**

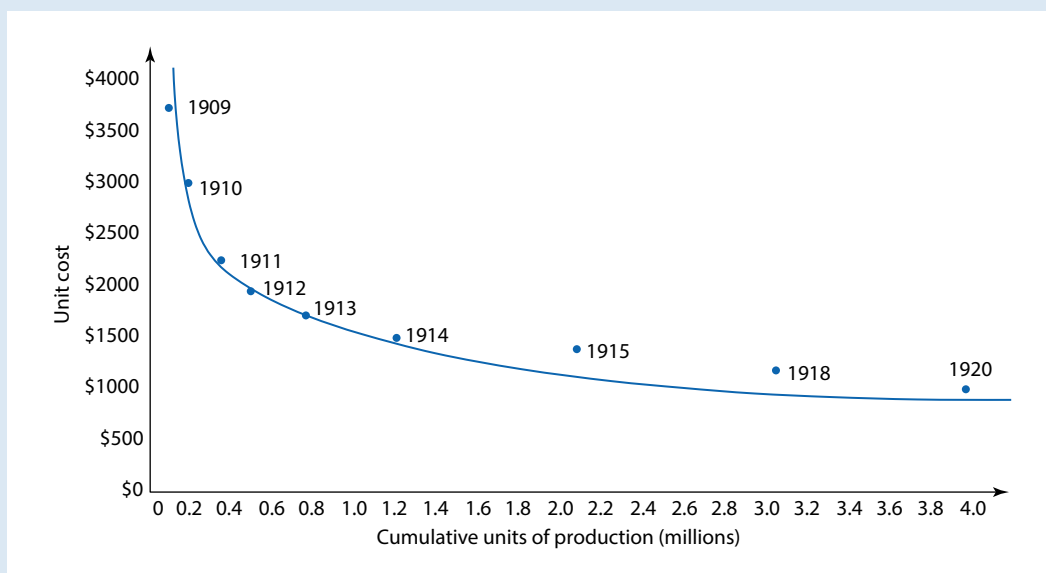
<sup>a</sup>Boston Consulting Group, *Perspectives on Experience* (Boston: BCG, 1970).

<sup>b</sup>Boston Consulting Group, *Strategy Alternatives for the British Motorcycle Industry* (London: HMSO, 1975).

<sup>c</sup>R. Jacobsen and D. Aaker, “Is Market Share All That It’s Cracked Up To Be?” *Journal of Marketing* 49 (Fall 1985): 11–22.

<sup>d</sup>R. Wensley, “PIMS and BCG: New Horizons or False Dawn?” *Strategic Management Journal* 3 (1982): 147–58.

**FIGURE 7.6** Experience curve for the Ford Model T, 1909–1920



**Note:** The figure shows an 85% experience curve, that is, unit costs declined by approximately 15% with each doubling of cumulative volume.

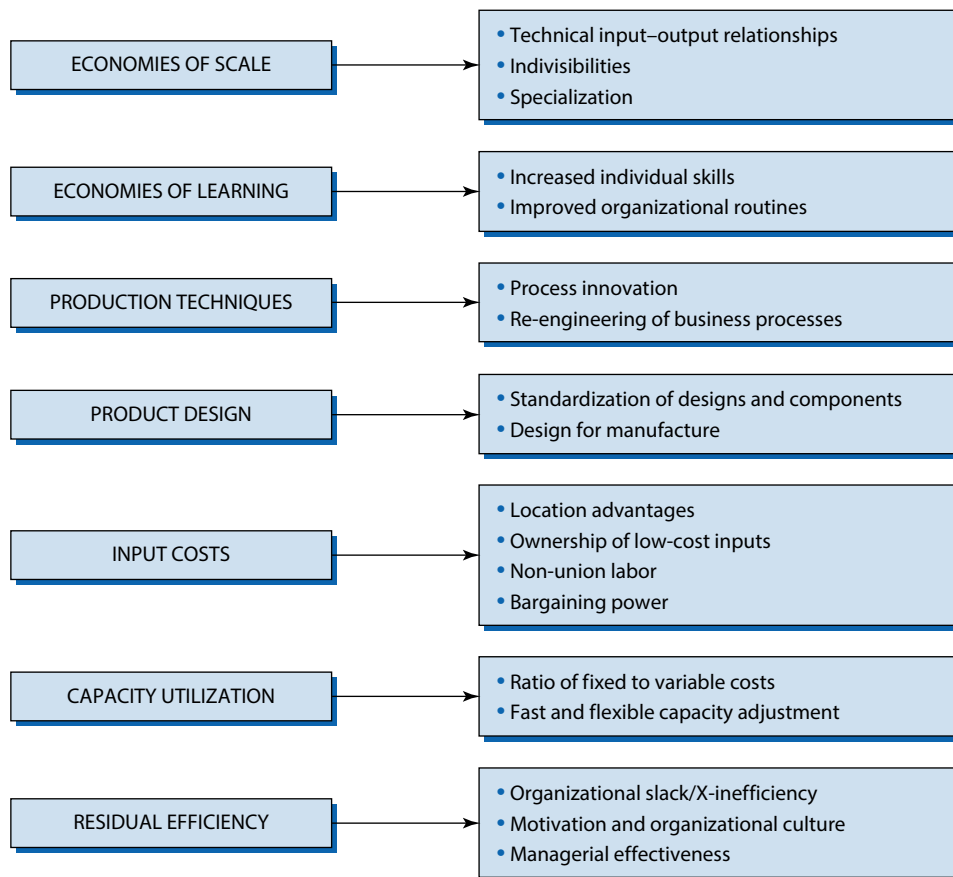
## The Sources of Cost Advantage

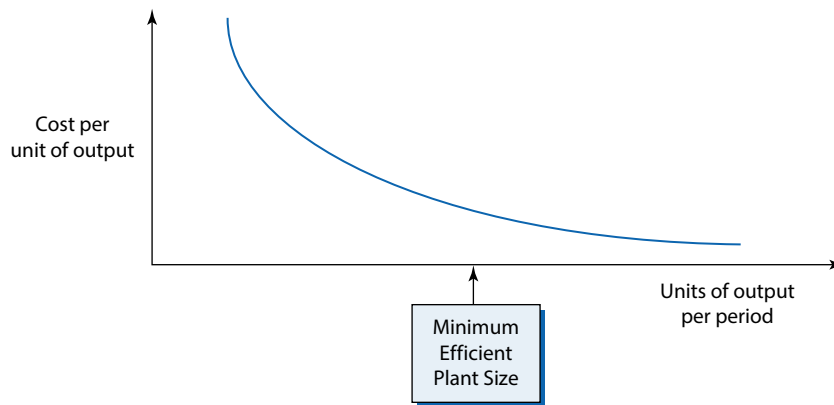
There are seven principal determinants of a firm's unit costs (cost per unit of output) relative to its competitors; we refer to these as *cost drivers* (Figure 7.7).

The relative importance of these different cost drivers varies across industries, between firms within an industry, and across the different activities within a firm. By examining each of these different cost drivers in relation to a particular firm, we can analyze a firm's cost position relative to its competitors', diagnose the sources of inefficiency, and make recommendations as to how a firm can improve its cost efficiency.

**Economies of Scale** The predominance of large corporations in most manufacturing and service industries is a consequence of economies of scale. Economies of scale exist wherever proportionate increases in the amounts of inputs employed in a production process result in lower unit costs. Economies of scale have been conventionally associated with manufacturing. Figure 7.8 shows a typical relationship between unit cost and plant capacity. The point at which most scale economies are exploited is the *minimum efficient plant size* (MEPS).

**FIGURE 7.7** The drivers of cost advantage



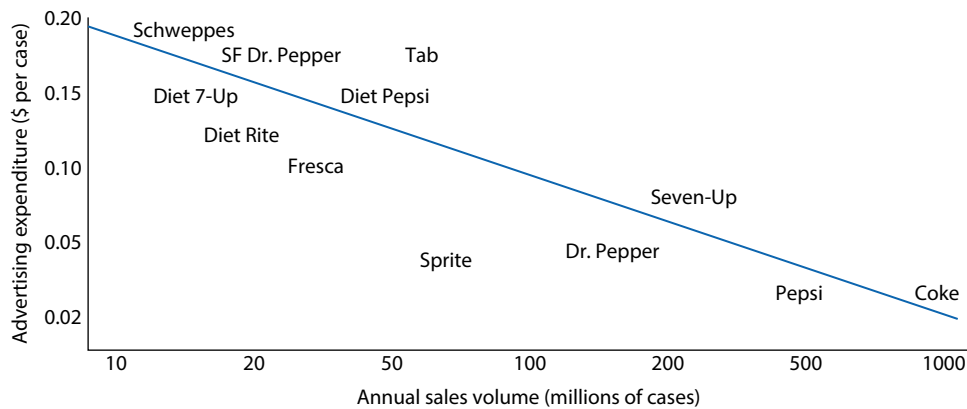
**FIGURE 7.8** The long-run average cost curve for a plant

Scale economies arise from three principal sources:

- **Technical input–output relationships:** In many activities, increases in output do not require proportionate increases in input. A 10,000-barrel oil storage tank does not cost five times as much as a 2000-barrel tank. Similar volume-related economies exist in ships, trucks, and steel and petrochemical plants.
- **Indivisibilities:** Many resources and activities are “lumpy”—they are unavailable in small sizes. Hence, they offer economies of scale as firms are able to spread the costs of these items over larger volumes of output. In R&D, new product development and advertising market leaders tend to have much lower costs as a percentage of sales than their smaller rivals.
- **Specialization:** Increased scale permits greater task specialization. Mass production involves breaking down the production process into separate tasks performed by specialized workers using specialized equipment. Division of labor promotes learning and assists automation. Economies of specialization are especially important in knowledge-intensive industries: in investment banking, management consulting, and legal services, large firms are able to offer a broader array of specialized expertise.

Scale economies are a key determinant of an industry's level of concentration. In many consumer goods industries, scale economies in marketing have driven industry consolidation. Figure 7.9 shows how soft drink brands with the greatest sales volume tend to have the lowest unit advertising costs. In other industries—especially aerospace, automobiles, software, and movie production—economies of scale arise from the huge costs of new product development. The Boeing 747 was hugely profitable because 1536 were built between 1970 and 2017. The challenge for the Airbus A380 is whether there is sufficient worldwide demand to cover the plane's \$18 billion development cost.

In industries where scale economies are important, small- and medium-sized companies can avoid disadvantages of small scale by outsourcing activities where scale is critical. For example, specialist car makers typically license technologies and designs and buy in engines.

**FIGURE 7.9** Economies of scale in advertising: US soft drinks

**Economies of Learning** The experience curve has its basis in learning-by-doing. Repetition develops both individual skills and organizational routines. In 1943, it took 40,000 labor-hours to build a B-24 Liberator bomber. By 1945, it took only 8000 hours.<sup>31</sup> Intel's dominance of the world microprocessor market owes much to its accumulated learning in the design and manufacture of these incredibly complex products. Learning occurs both at the individual level through improvements in dexterity and problem solving and at the group level through the development and refinement of organizational routines.<sup>32</sup>

**Process Technology and Process Design** Superior processes can be a source of huge cost economies. Pilkington's revolutionary float glass process gave it (and its licensees) an unassailable cost advantage in producing flat glass. Ford's moving assembly line reduced the time taken to assemble a Model T from 106 hours in 1912 to six hours in 1914. When process innovation is embodied in new capital equipment, diffusion is likely to be rapid. However, the full benefits of new process technologies typically require system-wide changes in job design, employee incentives, product design, organizational structure, and management controls. Between 1979 and 1986, General Motors achieved few productivity gains from the \$40 billion it spent on robotics and other advanced manufacturing technologies. The problem was that Toyota's system of lean production, which GM sought to imitate, relies less on advanced automation than on work practices such as just-in-time scheduling, total quality management, continuous improvement (kaizen), teamwork, job flexibility, and supplier partnerships.<sup>33</sup>

**Business process re-engineering** (BPR) is an approach to redesigning operational processes that became widely popular during the 1990s. "Re-engineering gurus" Michael Hammer and James Champy define BPR as: "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service, and speed."<sup>34</sup> BPR recognizes that processes can evolve haphazardly, hence, BPR begins with the question: "If we were starting afresh, how would we design this process?"

BPR can lead to major gains in efficiency, quality, and speed (Strategy Capsule 7.6), but where business processes are complex and embedded in organizational routines, "obliterating" existing processes and starting with a "clean sheet of paper" may endanger organizational capabilities that have been nurtured over a long period. In recent years, BPR has been partly superseded by *business process management*, where the emphasis has shifted from workflow management to the broader application of information technology (web-based applications in particular) to the redesign and enhancement of organizational processes.<sup>35</sup>

## STRATEGY CAPSULE 7.6

## Process Re-engineering at IBM Credit

Michel Hammer and James Champy describe how business process re-engineering resulted in IBM reducing the time taken to approve requests by sales personnel for new customer credit approval from six days to four hours. Under the old system, five stages were involved:

- 1 an IBM salesperson telephoned a request for financing, which was logged on a piece of paper;
- 2 the request was sent to the credit department, which checked the customer's creditworthiness;
- 3 the request and credit check were sent to the business practices department where a loan covenant was drawn up;
- 4 the paperwork was passed to a pricer, who determined the interest rate;
- 5 the clerical group prepared a quote letter that was sent to the salesperson.

Frustrated by the delays and resulting lost sales, two managers undertook an experiment. They took a financing request and walked it through all five steps—it took just 90 minutes!

The problem was that the process had been designed for the most complex credit requests that IBM received, yet, in most cases no specialist judgment was called for: all that was needed was to check credit ratings and to plug numbers into standard algorithms. The credit approval process was redesigned by replacing the specialists (credit checkers, pricers, and so on) with generalists who undertook all five processes. Specialists were reserved for nonstandard or unusually complex requests. Processing time was cut by 94%, fewer employees were required, and the volume of customer approvals increased.

**Source:** Adapted from M. Hammer and J. Champy, *Re-engineering the Corporation: A Manifesto for Business Revolution* (New York: Harper Business, 1993): 36–39.

**Product Design** *Design-for-manufacture*—designing products for ease of production rather than simply for functionality and esthetics—can offer substantial cost savings, especially when linked to the introduction of new process technology. In 2014, General Motors CEO Mary Barra announced the goal of reducing 26 global vehicle production platforms to just four by 2015. Such a transition would offer major savings in component and product development costs.<sup>36</sup>

Service offerings, too, can be designed for ease and efficiency of production. Motel 6, cost leader in US budget motels, carefully designs its product to keep operating costs low. Its motels occupy low-cost, out-of-town locations; it uses standard motel designs; it avoids facilities such as pools and restaurants; and it designs rooms to facilitate easy cleaning and low maintenance. However, efficiency in service design is compromised by the tendency of customers to request deviations from standard offerings (“I’d like my hamburger with the bun toasted on one side only, please”). This requires a clear strategy to manage variability either through accommodation or restriction.<sup>37</sup>

**Capacity Utilization** Over the short and medium terms, plant capacity is more or less fixed and variations in output cause capacity utilization to rise or fall. Underutilization raises unit costs because fixed costs must be spread over fewer units of production. Pushing output beyond normal full capacity also creates inefficiencies. Boeing’s efforts to boost output during 2006–2011 resulted in increased unit costs due to overtime pay, premiums for night and weekend shifts, increased defects, and higher maintenance costs.

**Input Costs** There are several reasons why a firm may pay less for an input than its competitors:

- **Locational differences in input prices:** The prices of inputs—wage rates especially—vary between locations. In the United States, software engineers earned an average of \$85,000 in 2017. In India, the average was \$13,000. In auto assembly, the hourly rate in Chinese plants was about \$3.90 an hour in 2016, compared with \$30 in the United States (not including benefits).<sup>38</sup>
- **Ownership of low-cost sources of supply:** In raw-material-intensive industries, ownership of low-cost sources of material can offer a massive cost advantage. In petroleum, lifting costs for the three “supermajors” (ExxonMobil, Royal Dutch Shell, and BP) were about \$21 per barrel in 2016; for Saudi Aramco they were about \$5.
- **Nonunion labor:** Labor unions result in higher levels of pay and benefits and work rules that can lower productivity. In the US airline industry, nonunion Virgin America had average salary and benefit cost per employee of \$79,161 in 2013 compared with \$98,300 for United States (80% unionized).
- **Bargaining power:** The ability to negotiate preferential prices and discounts can be a major source of cost advantage for industry leaders, especially in retailing.<sup>39</sup> Amazon’s growing dominance of book retailing allows it to demand discounts from publishers of up to 60%.<sup>40</sup>

**Residual Efficiency** Even after taking account of the basic cost drivers—scale, technology, product and process design, input costs, and capacity utilization—unexplained cost differences between firms typically remain. These residual efficiencies relate to the extent to which the firm approaches its efficiency frontier of optimal operation which depends on the firm’s ability to eliminate “organizational slack”<sup>41</sup> or “X-inefficiency.”<sup>42</sup> These excess costs have a propensity to accumulate within corporate headquarters—where they become targets for activist investors.<sup>43</sup> Eliminating these excess costs often requires a threat to a company’s survival—in his first year as CEO, Carlos Ghosn cut Nissan Motor’s operating costs by 20%.<sup>44</sup> At Walmart, Ryanair, and Amazon, high levels of residual efficiency are the result of management systems and company values that are intolerant of unnecessary costs and glorify frugality.

## Using the Value Chain to Analyze Costs

To analyze an organization’s cost position and seek opportunities for cost reduction, we need to look at individual activities. Chapter 5 introduced the *value chain* as a framework for viewing the sequence of activities that a company or business unit performs. Each activity tends to be subject to a different set of cost drivers, which give it a distinct cost structure. A value chain analysis of a firm’s costs seeks to identify:

- the relative importance of each activity with respect to total cost;
- the cost drivers for each activity and the comparative efficiency with which the firm performs each activity;
- how costs in one activity influence costs in another;
- which activities should be undertaken within the firm and which activities should be outsourced.

A value chain analysis of a firm's cost position comprises the following stages:

- 1 Disaggregate the firm into separate activities: Identifying value chain activities is a matter of judgment. It requires identifying which activities are separate from one another, which are most important in terms of cost, and their dissimilarity in terms of cost drivers.
- 2 Estimate the cost that each activity contributes to total costs. The goal is to identify which activities are the most important sources of cost, since, even with activity-based costing, detailed cost allocation can be a major exercise.<sup>45</sup>
- 3 Identify cost drivers: For each activity, what factors determine the level of unit cost relative to other firms? For activities with large fixed costs such as new product development or marketing, the principal cost driver is likely to be the ability to amortize costs over a large volume of sales. For labor-intensive activities, key cost drivers tend to be wage rates, process design, and defect rates.
- 4 Identify linkages: The costs of one activity may be determined, in part, by the way in which other activities are performed. Xerox discovered that its high service costs relative to competitors' reflected the complexity of design of its.
- 5 Identify opportunities for reducing costs: By identifying areas of comparative inefficiency and the cost drivers for each, opportunities for cost reduction become evident. If the sources of inefficiency cannot be resolved, can the activity be outsourced?

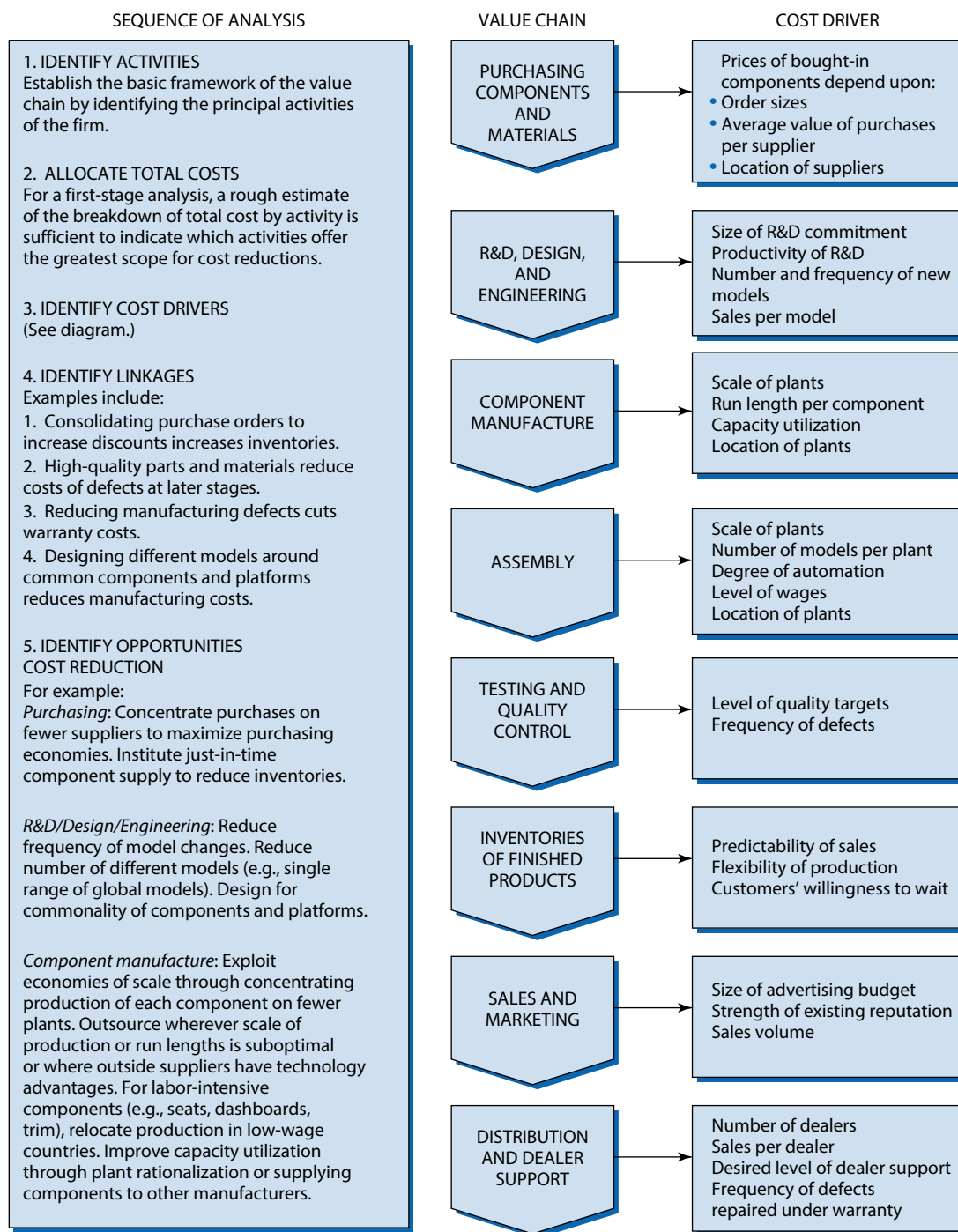
Figure 7.10 shows how the application of the value chain to automobile manufacture can identify possibilities for cost reductions.

## Differentiation Advantage

A firm differentiates itself from its competitors "when it provides something unique that is valuable to buyers beyond simply offering a lower price."<sup>46</sup> Differentiation advantage occurs when the price premium that the firm earns from differentiation exceeds the cost of providing the differentiation.

Every firm has opportunities to differentiate its offering, although the range of differentiation opportunities depends on the characteristics of the product. An automobile or a restaurant offers greater potential for differentiation than cement, wheat, or memory chips. These latter products are called *commodities* precisely because they lack physical differentiation. Yet, according to Tom Peters, "Anything can be turned into a value-added product or service."<sup>47</sup> Consider the following:

- Cement is the ultimate commodity product, yet Cemex, based in Mexico, has become a leading worldwide supplier of cement and ready-mix concrete through emphasizing "building solutions"—one aspect of which is ensuring that 98% of its deliveries are on time (compared to 34% for the industry as a whole).<sup>48</sup>
- Online bookselling is inherently a commodity business—any online bookseller has access to the same titles and same modes of distribution. Yet, Amazon has exploited the information generated by its business to offer a range of value-adding services: best-seller lists, reviews, and customized recommendations.

**FIGURE 7.10** Using the value chain in cost analysis: An automobile manufacturer

The lesson is this: differentiation is not simply about offering different product features; it is about identifying and understanding every possible interaction between the firm and its customers and asking how these interactions can be enhanced or changed in order to deliver additional value to the customer. This requires looking at both the firm (the supply side) and its customers (the demand side). While *supply-side analysis*

identifies the firm's potential to create uniqueness, the critical issue is whether such differentiation creates value for customers and whether the value created exceeds the cost of the differentiation. Only by understanding what customers want, how they choose, and what motivates them can we identify opportunities for profitable differentiation.

Thus, differentiation strategies are not about pursuing uniqueness for its own sake. Differentiation is about understanding customers and how to best meet their needs. To this extent, the quest for differentiation advantage takes us to the heart of business strategy. The fundamental issues of differentiation are also the fundamental issues of business strategy: Who are our customers? How do we create value for them? And how do we do it more effectively and efficiently than anyone else?

Because differentiation is about uniqueness, establishing differentiation advantage requires creativity: it cannot be achieved simply through applying standardized frameworks and techniques, but it can be guided by systematic analysis. As we have observed, there are two requirements for creating profitable differentiation. On the supply side, the firm must be aware of the resources and capabilities through which it can create uniqueness (and do it better than competitors). On the demand side, the key is insight into customers and their needs and preferences. These two sides form the major components of our analysis of differentiation.

## The Nature and Significance of Differentiation

The potential for differentiating a product or service is partly determined by its physical characteristics. For products that are technically simple (a pair of socks, a brick), that satisfy uncomplicated needs (a corkscrew, a nail), or must meet rigorous technical standards (a DRAM chip, a thermometer), differentiation opportunities are constrained by technical and market factors. Products that are technically complex (an airplane), that satisfy complex needs (an automobile, a vacation), or that do not need to conform to particular technical standards (wine, toys) offer much greater scope for differentiation.

Beyond these constraints, the potential in any product or service for differentiation is limited only by the boundaries of the human imagination. For seemingly simple products such as shampoo, toilet paper, and bottled water, the proliferation of brands on any supermarket's shelves is testimony both to the ingenuity of firms and the complexity of customers' preferences. Differentiation extends beyond the physical characteristics of the product or service to encompass everything about the product or service that influences the value that customers derive from it. Hence, differentiation requires an understanding of every aspect of a company's relationship with its customers. Starbucks' ability to charge up to \$5 for a cup of coffee (compared to \$1 at Burger King) reflects, not just the characteristics of the coffee, but also the overall "Starbucks Experience" which encompasses the retail environment, the community in which customers participate, and the values that Starbucks projects.

Differentiation includes both tangible and intangible dimensions. *Tangible differentiation* is concerned with the observable characteristics of a product or service that are relevant to customers' preferences and choice processes: for example, size, shape, color, weight, design, material, and performance attributes such as reliability, consistency, taste, speed, durability, and safety. Tangible differentiation also extends to products and services that complement the product in question: delivery, after-sales services, and accessories.

Opportunities for *intangible differentiation* arise because the value that customers perceive in a product is seldom determined solely by observable product features or objective performance criteria. Social, emotional, psychological, and esthetic criteria also guide customer choices. For consumer goods and services, the desire for status,

exclusivity, individuality, security, and community are powerful motivational forces. These attributes are closely linked to the overall image of the firm and its offering. Image is especially important for those products and services whose qualities and performance are difficult to ascertain at the time of purchase (so-called *experience goods*). These include cosmetics, medical services, and education.

***Differentiation and Segmentation*** Differentiation is different from segmentation. Differentiation is concerned with how a firm competes—the ways in which it can offer uniqueness to customers. Such uniqueness might relate to consistency (McDonald's), reliability (Federal Express), status (American Express), quality (BMW), and innovation (Apple). Segmentation is concerned with where a firm competes in terms of customer groups, localities, and product types.

Whereas segmentation is a feature of market structure, differentiation is a strategic choice made by a firm. Differentiation may lead to focusing upon particular market segments, but not necessarily. IKEA, McDonald's, Honda, and Starbucks all pursue differentiation, but position themselves within the mass market spanning multiple demographic and socioeconomic segments.<sup>49</sup>

***The Sustainability of Differentiation Advantage*** Differentiation offers a more secure basis for competitive advantage than low cost does. A position of cost advantage is vulnerable to adverse movements in exchange rates and to new competitors taking advantage of low input costs and new technologies. Differentiation advantage would appear to be more sustainable. Large companies that consistently earn above-average returns on capital—such as Colgate-Palmolive, Diageo, Johnson & Johnson, Kellogg's, Procter & Gamble, 3M, and Wyeth—tend to be those that have pursued differentiation through quality, branding, and innovation.

## Analyzing Differentiation: The Demand Side

Analyzing customer demand enables us to determine which product characteristics have the potential to create value for customers, customers' willingness to pay for differentiation, and a company's optimal competitive positioning in terms of differentiation variables. Analyzing demand begins with understanding why customers buy a product or service. Market research systematically explores customer preferences and customer perceptions of existing products. However, the key to successful differentiation is to understand customers: a simple, direct inquiry into the purpose of a product and the needs of its customers can often be far more illuminating than statistically validated market research (Strategy Capsule 7.7).

Understanding customer needs requires the analysis of customer preferences in relation to product attributes. Techniques include the following:

- ***Multidimensional scaling*** (MDS) compares competing products in terms of key product attributes.<sup>50</sup> Figure 7.11 shows consumer ratings of competing pain relievers. Multidimensional scaling has also been used to classify 109 single-malt Scotch whiskies according to their color, nose, palate, body, and finish.<sup>51</sup>
- ***Conjoint analysis*** measures the strength of customer preferences for different products which then allows consumer preference for a hypothetical new product to be predicted.<sup>52</sup> Conjoint analysis was used by Marriott to design its Courtyard hotel chain.

- *Hedonic price analysis* views products as bundles of underlying attributes.<sup>53</sup> It uses regression analysis to estimate the implicit market price for each attribute. For example, price differences among European washing machines can be related to differences in capacity, spin speed, energy consumption, number of programs, and reliability.<sup>54</sup> Similarly, price differences between models of personal computer reflect differences in processor speed, memory, and hard drive capacity. This analysis can be used to decide what levels of each attribute to include within a new product and the price for that product.

***The Role of Social and Psychological Factors*** Analyzing product differentiation in terms of measurable performance attributes fails to take account of customers' underlying motivations. Few goods or services only satisfy physical needs; most buying is influenced by social and psychological motivations, such as the desire to find

## STRATEGY CAPSULE 7.7

### Understanding What a Product Is About

Kenichi Ohmae was the head of McKinsey & Company's Tokyo office (1972–1995). He is Japan's most renowned strategy guru. Product differentiation, in his view, is about understanding customers and their relationship to the product. He recounts the efforts of a Japanese appliance maker to develop a coffee percolator. The development team sought to differentiate its coffee maker from those produced by General Electric, Philips, and Faberware in terms of size, speed, brewing system, and shape. Ohmae urged the development team to ask a different question: "Why do people drink coffee?" The answer: "For the taste." Yet, the company's engineers knew nothing about what determined the taste of good coffee. After a few weeks they discovered that a superior tasting cup of coffee required freshly-ground quality beans, pure water, optimal water temperature, and an even distribution of grains.

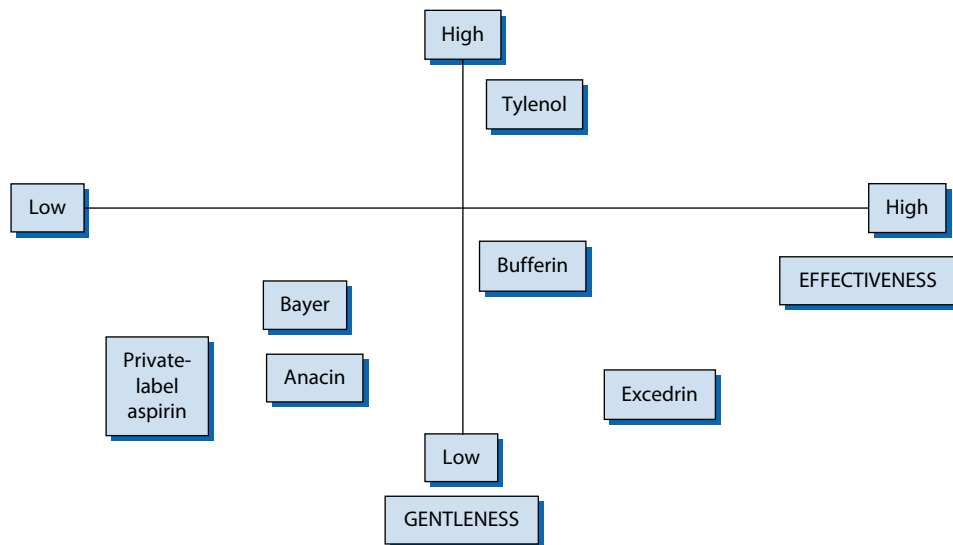
As a result, the essential design features for the coffee maker emerged: it had to have a built-in grinder, it needed a water purifier to remove chlorine, it required precise control of water temperature, and so on.

Ohmae emphasizes the need to ask the right questions when formulating strategy. It is vital to establish a competitive advantage, but concentrating upon what competitors are doing can lock a company into conventional ways of thinking. The Japanese appliance company risked becoming fixated on General Electric's new percolator that brewed coffee in 10 minutes—it targeted a brewing time of eight minutes. Where does this logic lead us? To the conclusion that instant coffee is best! Ohmae encourages us to take a step back and consider a product in relation to customers' innate needs and motives.

Nintendo's success with its Wii and Switch video games consoles confirms the potential of this approach. Rather than a futile attempt to match Sony and Microsoft on computing power, graphics, or virtual reality, Nintendo has concentrated on enhancing users' gaming experiences. This has allowed it to discover differentiation opportunities that don't depend upon advanced micro-electronics.

**Sources:** K. Ohmae "Getting Back to Strategy," *Harvard Business Review* (November/December 1988); K. Ohmae, *The Borderless World*, (New York: HarperCollins, 1999).

**FIGURE 7.11** Consumer perceptions of competing pain relievers: A multidimensional scaling mapping



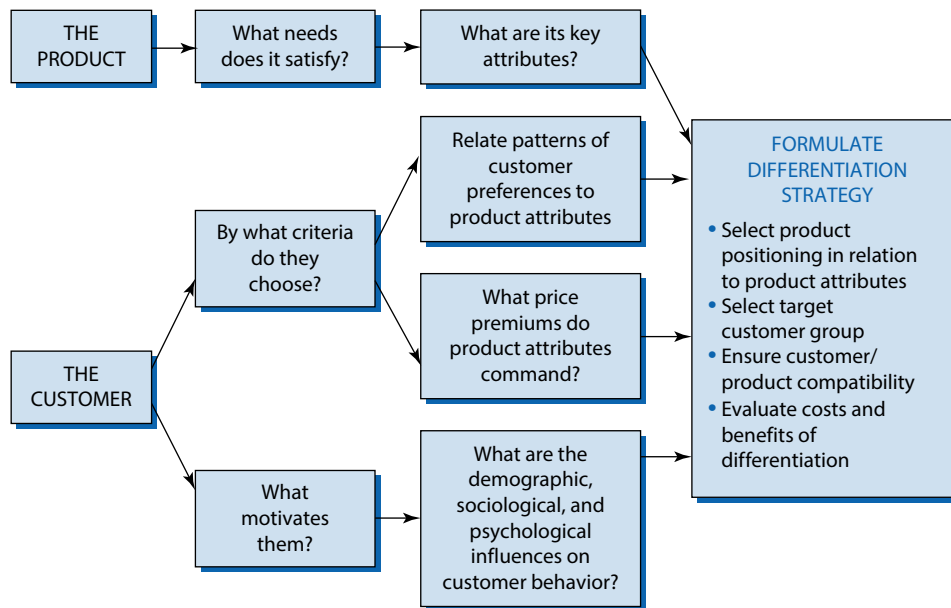
community with others and to reinforce one's own identity. Psychologist Abraham Maslow proposed a hierarchy of human needs that progress from basic survival needs to security needs, to belonging needs, to esteem needs, up to the desire for self-actualization.<sup>55</sup> For most goods, brand equity has more to do with higher-level needs such as status and identity than with tangible product performance. The disastrous introduction of "New Coke" in 1985 was the result of Coca-Cola giving precedence to tangible differentiation (taste preferences) over intangible differentiation (authenticity).<sup>56</sup> Harley-Davidson harbors no such illusions: it recognizes quite clearly that it is in the business of selling lifestyle, not transportation.

If the main drivers of consumer behavior are identity and social affiliation, the implications for differentiation are that we must analyze not only the product and its characteristics but also customers, their lifestyles and aspirations, and the relationship of the product to those lifestyles and aspirations. Market research that focuses upon traditional demographic and socioeconomic factors may be less useful than a deep understanding of consumers' relationships with a product. As consumers become increasingly sensitive to the activities of companies that supply their goods and services, so companies are drawn toward corporate social responsibility as a means of protecting and augmenting the value of their brands.<sup>57</sup>

Figure 7.12 summarizes the key points of this discussion by posing some basic questions that explore the potential for demand-side differentiation.

### Analyzing Differentiation: The Supply Side

Creating differentiation advantage also depends on a firm's ability to offer differentiation. This requires us to pay attention to the activities that the firm undertakes and its capabilities in performing them.

**FIGURE 7.12** Identifying differentiation potential: The demand side

**The Drivers of Uniqueness** Differentiation is concerned with providing customers with uniqueness. Michael Porter argues that the opportunities for providing uniqueness are not limited to a particular function or activity but can arise in virtually everything that the firm does, including:

- product features and product performance;
- complementary services (such as credit, delivery, repair);
- intensity of marketing activities (such as rate of advertising spending);
- technology embodied in design and manufacture;
- quality of purchased inputs;
- procedures that influence the customer experience (such as the rigor of quality control, service procedures, frequency of sales visits);
- skill and experience of employees;
- location (e.g., proximity to the customer);
- degree of vertical integration (which influences a firm's ability to control inputs and intermediate processes).<sup>58</sup>

Differentiation can also occur through *bundling*—combining complementary products and services in a single offering.<sup>59</sup> Such bundling runs contrary to the normal tendency for products to unbundle as markets mature and complementary services become provided by specialist suppliers. Electronic commerce has reinforced unbundling; consumers increasingly create their own customized vacations in preference to purchasing an all-inclusive vacation package. However, rebundling of products and services has become especially important in business-to-business transactions through “providing customer solutions”—combinations of goods and services that are tailored to the needs of each client. This involves a radical rethink of the business models in many companies.<sup>60</sup>

**Product Integrity** Differentiation decisions cannot be made on a piecemeal basis. Establishing a coherent and effective differentiation position requires the firm to assemble a complementary package of differentiation attributes. If Burberry, the British fashion house, wants to expand its range of clothing and accessories, it needs to ensure that every new product offering is consistent with its overall image as a quality-focused brand that combines traditional British style with contemporary edginess. *Product integrity* refers to the consistency of a firm's differentiation; it is the extent to which a product achieves:

total balance of numerous product characteristics, including basic functions, esthetics, semantics, reliability, and economy... Internal integrity refers to consistency between the function and structure of the product... External integrity is a measure of how well a product's function, structure, and semantics fit the customer's objectives, values, production system, lifestyle, use pattern, and self-identity.<sup>61</sup>

Simultaneously achieving internal and external integrity is a complex organizational challenge: it requires close cross-functional collaboration and intimate customer contact.<sup>62</sup> This integration of internal and external product integrity is especially important to those supplying "lifestyle" products, where differentiation is based on customers' social and psychological needs. Here, the credibility of the image depends critically on the consistency of the image presented. One element of this integration is a common identity between customers and company employees. For instance:

- Harley-Davidson's image of ruggedness, independence, individuality, and community is supported by a top management team that dons biking leathers and participates in owners' group rides, and a management system that empowers shop-floor workers and fosters quality, initiative, and responsibility.
- Central to the "Starbucks Experience" is the connection between customers and employees, which is reinforced by Starbucks' generous employee benefits and employee involvement in Starbucks' social and environmental initiatives.

**Signaling and Reputation** Differentiation is only effective if it is communicated to customers. But information about the qualities and characteristics of products is not always readily available to potential customers. The economics literature distinguishes between *search goods*, whose qualities and characteristics can be ascertained by inspection, and *experience goods*, whose qualities and characteristics are only recognized after consumption. This latter class of goods includes medical services, baldness treatments, frozen TV dinners, and wine. Even after purchase, performance attributes may be slow in revealing themselves. Bernie Madoff established Bernard L. Madoff Investment Securities LLC in 1960—it took 48 years before the renowned investment house was revealed as a "giant Ponzi scheme."<sup>63</sup>

In the terminology of game theory (see Chapter 4), the market for experience goods corresponds to a classic prisoners' dilemma. A firm can offer a high-quality or a low-quality product. The customer can pay either a high or a low price. If quality cannot be detected, then equilibrium is established, with the customer offering a low price and the supplier offering a low-quality product, even though both would be better off with a high-quality product sold at a high price. The resolution of this dilemma is for producers to find some credible means of signaling quality to the customer. The most effective signals are those that change the payoffs in the prisoners' dilemma. Thus, an extended warranty is effective because providing such a warranty would be

more expensive for a low-quality producer than a high-quality producer. Brand names, warranties, expensive packaging, money-back guarantees, sponsorship of sports and cultural events, and a carefully designed retail environment for the product are all signals of quality. Their effectiveness stems from the fact that they represent significant investments by the manufacturer that will be devalued if the product proves unsatisfactory to customers.

The more difficult it is to ascertain performance prior to purchase, the more important are these signals of quality.

- A perfume can be sampled prior to purchase and its fragrance assessed, but its ability to augment the identity of the wearer and attract attention remains uncertain. Hence, the key role of branding, packaging, advertising, and lavish promotional events in establishing the perfume's identity and performance credentials.
- In financial services, the customer cannot easily assess the honesty, financial soundness, or competence of the supplier. Hence, financial service companies rely upon symbols of security and stability: imposing head offices, conservative office decor, smartly dressed employees, and trademarks such as Prudential's rock and Travelers' red umbrella. Bernie Madoff's multibillion investment swindle was sustained by his association with leading figures among New York's Jewish community, his prominent role in cultural and charitable organizations, and the aura of exclusivity around his investment firm.

**Brands** Brands fulfill multiple roles. At the most basic level, a brand provides an implicit guarantee of quality simply by identifying the producer of a product, thereby ensuring the producer is legally accountable for its products. Further, the brand represents an investment that provides an incentive to maintain quality and customer satisfaction. It is a credible signal of quality because of the disincentive of its owner to devalue it. As a result, a brand acts as a guarantee to the customer that reduces uncertainty and search costs. The more difficult it is to discern quality on inspection, and the greater the cost to the customer of purchasing a defective product, the greater the value of a brand: a trusted brand name is more important to us when I purchase mountaineering equipment than when I buy a pair of socks.

However, the value conferred by consumer brands such as Red Bull, Tesla, Mercedes-Benz, Gucci, Virgin, and American Express is more about conferring identity than guaranteeing reliability and quality. As brand building focuses increasingly on "brand experience," "tribal identity," "shared values," and "emotional dialogue," traditional mass-market advertising is taking a back seat to word-of-mouth promotional initiatives using social and the other digital marketing tools of *viral marketing*.<sup>64</sup>

**The Costs of Differentiation** Differentiation adds cost: higher-quality inputs, better-trained employees, higher advertising costs, and better after-sales service. If differentiation narrows a breadth of appeal, it also limits the potential for exploiting scale economies.

One means of reconciling differentiation with cost efficiency is to postpone differentiation to later stages of the firm's value chain. Modular design with common components permits scale economies while permitting product variety. All the major automakers have standardized platforms, engine types, and components, while offering customers multiple models and innumerable combinations of colors, trim, and accessories.

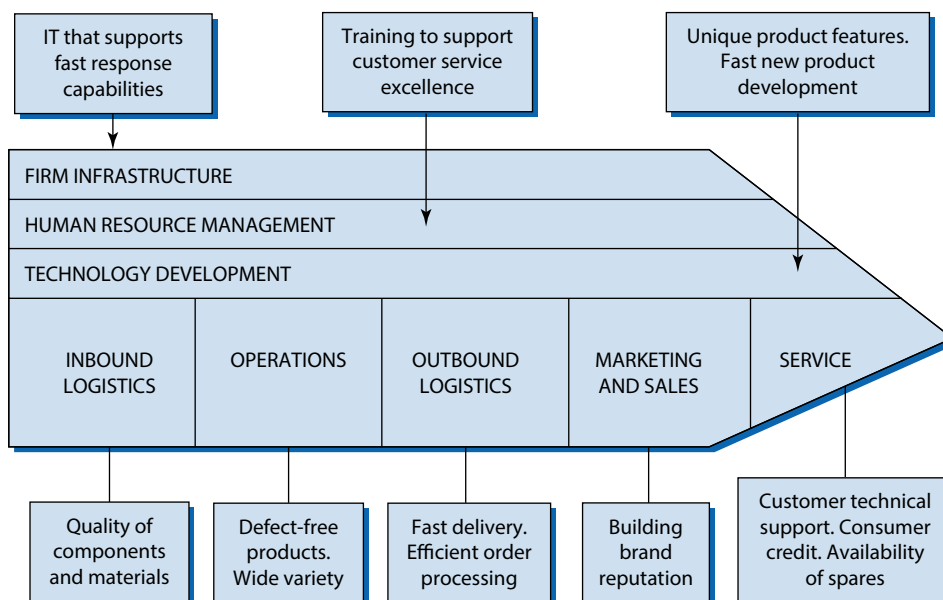
## Bringing It All Together: The Value Chain in Differentiation Analysis

Demand side and supply side analyses of differentiation potential is only useful once they are brought together. The key to successful differentiation is matching the firm's capacity for creating differentiation to the attributes that customers value most. For this, the value chain provides a particularly useful framework. Let's begin with the case of a producer good, that is, one that is supplied by one firm to another.

**Value Chain Analysis of Producer Goods** Using the value chain to identify opportunities for differentiation advantage involves three principal stages:

- 1 Construct a value chain for the firm and its customer. It may be useful to consider not just the immediate customer but also firms further downstream in the value chain. If the firm supplies different types of customers, it's useful to draw separate value chains for each major category of customer.
- 2 Identify the drivers of uniqueness in each activity of the firm's value chain. Figure 7.13 identifies some possible sources of differentiation within Porter's generic value chain.
- 3 Locate linkages between the value chain of the firm and that of the buyer. What can the firm do with its own value chain activities that can reduce the cost or enhance the differentiation potential of the customer's value chain activities? The amount of additional value that the firm creates for its customers through exploiting these linkages represents the potential price premium the firm can charge for its differentiation. Strategy Capsule 7.8 demonstrates the identification of differentiation opportunities by lining the value chains of a firm and its customers.

**FIGURE 7.13** Using the value chain to identify differentiation potential on the supply side



## STRATEGY CAPSULE 7.8

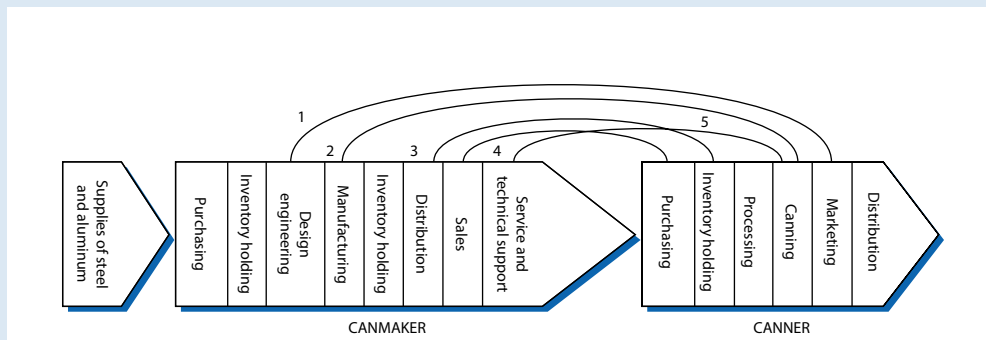
## Using the Value Chain to Identify Differentiation Opportunities for a Manufacturer of Metal Containers

The metal container industry is a highly competitive, low-growth, low-profit industry. Cans lack potential for differentiation, and buyers (especially beverage and food canning companies) are very powerful. Cost efficiency is essential, but can we also identify opportunities for profitable differentiation? Following the procedure outlined above, we can construct a value chain for a firm and its customers, and then identify linkages between the two. Figure 7.14 identifies five such linkages:

- 1 Distinctive can designs (e.g., Sapporo's beer can) can support the customer's efforts to differentiate its product.

- 2 Manufacturing cans to high tolerances can minimize breakdowns on customers' canning lines.
- 3 Reliable, punctual can deliveries allow canners to economize on their can inventories.
- 4 An efficient order-processing system reduces canners' ordering costs.
- 5 Speedy, proficient technical support allows customers to operate their canning lines with high-capacity utilization and low downtime.

**FIGURE 7.14** Identifying differentiation opportunities by linking the firm's value chain to that of the customer



**Value Chain Analysis of Consumer Goods** Value chain analysis of differentiation opportunities can also be applied to consumer goods. Few consumer goods are consumed directly: typically, consumers engage in a chain of activities that involve search, acquisition, and use of the product. In the case of consumer durables, the value chain may include search, purchase, financing, acquisition of complementary products and services, operation, service and repair, and eventual disposal. Such complex consumer value chains offer many potential linkages with the manufacturer's value chain, with rich opportunities for innovative differentiation. Harley-Davidson has built its strategy around the notion that it is not supplying motorcycles; it is supplying a customer experience. This has encouraged it to expand the scope of its contact with its customers to provide a wider range of services than any other motorcycle company. Even nondurables involve the consumer in a chain of activities. Consider a frozen TV

dinner: it must be purchased, taken home, removed from the package, heated, and served before it is consumed. After eating, the consumer must clean any used dishes, cutlery, or other utensils. A value chain analysis by a frozen foods producer would identify ways in which the product could be formulated, packaged, and distributed to assist the consumer in performing this chain of activities.

**Can Firms Pursue Both Cost and Differentiation Advantage?**

The two primary sources of competitive advantage require 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 7.1 outlines some of the principal features of cost and differentiation strategies.

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.<sup>65</sup>

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 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 limited-feature, standardized offerings, but this does not necessarily imply that the product or service is an

**TABLE 7.1** Features of cost leadership and differentiation strategies

| Generic strategy | Key strategy elements                                                                             | Organizational requirements                                                  |
|------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Cost leadership  | Scale-efficient plants                                                                            | Access to capital                                                            |
|                  | Maximizing labor productivity                                                                     | Division of labor with incentives linked to quantitative performance targets |
|                  | Design for manufacture                                                                            | Product design coordinated with manufacture                                  |
|                  | Control of overheads                                                                              | Tight cost controls                                                          |
|                  | Process innovation                                                                                | Process engineering skills                                                   |
|                  | Outsourcing                                                                                       | Benchmarking                                                                 |
|                  | Avoid marginal customering accounts                                                               | Measuring profit per customer                                                |
| Differentiation  | Emphasis on branding, advertising, design, customer service, quality, and new product development | Marketing abilities                                                          |
|                  |                                                                                                   | Product engineering skills                                                   |
|                  |                                                                                                   | Cross-functional coordination                                                |
|                  |                                                                                                   | Creativity                                                                   |
|                  |                                                                                                   | Research capability                                                          |
|                  |                                                                                                   | Incentives linked to qualitative performance targets                         |

undifferentiated commodity. Southwest Airlines and AirAsia are budget airlines with a no-frills offering yet have clear market positions with unique brand images. The VW Beetle shows that a utilitarian, mass-market product can achieve cult status.

In most industries, market leadership is held by a firm that maximizes customer appeal by reconciling effective differentiation with low cost—Toyota in cars, McDonald's in fast food, Nike in athletic shoes. The huge global success of Japanese suppliers of cars, motorcycles, consumer electronics, and musical instruments during the 1980s and 1990s was the result of simultaneously pursuing cost efficiency, quality, innovation, and brand building. The management techniques pioneered by Japanese companies—notably total quality management—reconciling cost efficiency with differentiation has been facilitated by new management techniques: total quality management repudiated the conventional trade-off between quality and cost; flexible manufacturing systems have reconciled scale economies with variety. In many industries, the cost leader is not the market leader but a smaller competitor with minimal overheads, nonunion labor and cheaply acquired assets.

## Summary

Making money in business requires establishing and sustaining competitive advantage. Identifying opportunities for competitive advantage requires insight into the nature and process of competition within a market. Our analysis of the imperfections of the competitive process takes us back to the resources and capabilities needed to compete in a particular market and conditions under which these are available. Similarly, the isolating mechanisms that sustain competitive advantage are dependent primarily upon the ability of rivals to access the resources and capabilities needed for imitation.

Competitive advantage has two primary dimensions: cost advantage and differentiation advantage. The first of these, cost advantage, is the outcome of seven primary cost drivers. We showed that by applying these cost drivers and by disaggregating the firm into a value chain of linked activities, we can appraise a firm's cost position relative to competitors and identify opportunities for cost reduction. The principal message of this section is the need to look behind cost accounting data and beyond simplistic approaches to cost efficiency, and to analyze the factors that drive relative unit costs in each of the firm's activities in a systematic and comprehensive manner.

The appeal of differentiation is that it offers multiple opportunities for competitive advantage with a greater potential for sustainability than does cost advantage. The vast realm of differentiation opportunity extends beyond marketing and design to encompass all aspects of a firm's interactions with its customers. Achieving a differentiation advantage requires the firm to match its own capacity for creating uniqueness to the requirements and preferences of customers. The value chain offers firms a useful framework for identifying how they can create value for their customers by combining demand-side and supply-side sources of differentiation.

Finally, the basis of a firm's competitive advantage has important implications not just for the design of its strategy but for the design of its organizational structure and systems. Typically, companies that are focused on cost leadership design their organizations differently from those that pursue differentiation. However, the implications of competitive strategy for organizational design are complicated by the fact that, for most firms, cost efficiency and differentiation are not mutually exclusive—in today's intensely competitive markets, firms have little choice but to pursue both.