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READING + INTERACTIVE ILLUSTRATIONS

Competitive Advantage

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Table of Contents

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1 INTRODUCTION

Some companies are far more profitable than others.[1] The pharmaceutical company Lilly generated a return on invested capital (ROIC) of 28% from 2005 to 2021. Over the same period, Air Canada produced an ROIC of just 2.5%. Such large differences in profitability are commonplace. Understanding their roots is crucial for strategists.

Differences in industry structure shed light on such differences in performance.[2] To a certain extent, Lilly was more profitable than Air Canada during this period because the pharmaceutical industry is structurally more attractive than the airline industry. Rivalry among pharmaceutical companies is muted by factors such as patent protection, product differentiation, and expanding demand. In contrast, rivalry among airlines is fierce, fueled by limited differences among services, excess capacity, and the ability to shift planes to routes where others are making money. Many pharmaceutical users hesitate to switch products or brands, while air passengers are often willing to switch among airlines in order to get even a slightly better price. Many pharmaceuticals are made from commodities with little labor input, while suppliers such as unions and aircraft manufacturers exercise some power over airlines. Such contrasts in industry-level competitive forces are one reason for the variation in profit levels of firms in different industries. (For more on the forces that influence industry profitability, see *Core Reading: Industry Analysis* [HBP No. 8101].)

Exhibit 1 presents the distribution of industry ROIC for the full spectrum of industries, based on the performance of all public companies in North America for the period 2005–2021. This figure shows that industries differ dramatically in the returns they offer to the typical company. **Exhibit 2** delves further into this data, looking at the ROICs of selected industries, and reveals that the pharmaceutical industry has been among the most profitable industries, while the airline industry has been among the least profitable.

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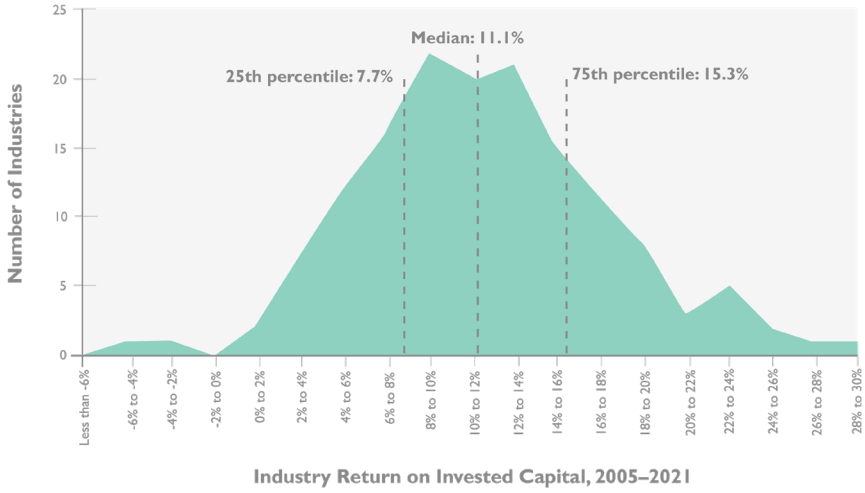
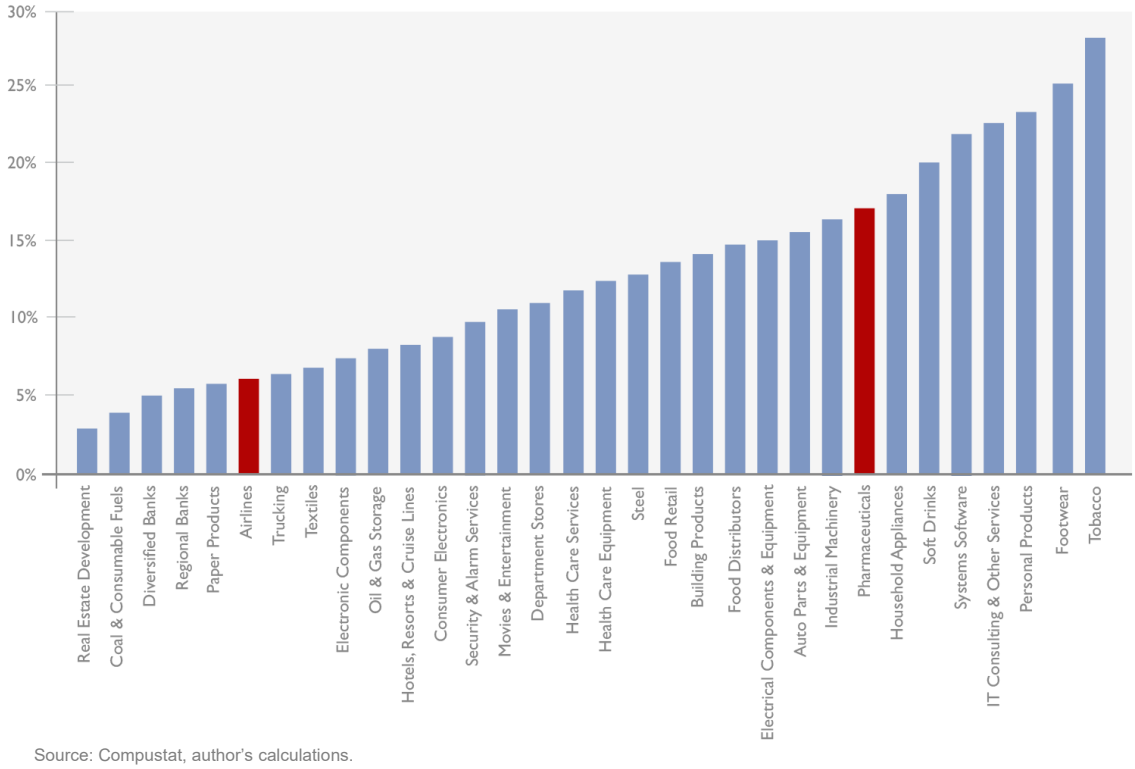
EXHIBIT 1 Distribution of Industry Return on Invested Capital (ROIC)



Note: ROIC is calculated as earnings before interest and taxes divided by the sum of long-term debt, total equity, and minority interest.
Source: Compustat, author's calculations.

EXHIBIT 2 Return on Invested Capital of Selected Industries, 2005–2021



Source: Compustat, author's calculations.

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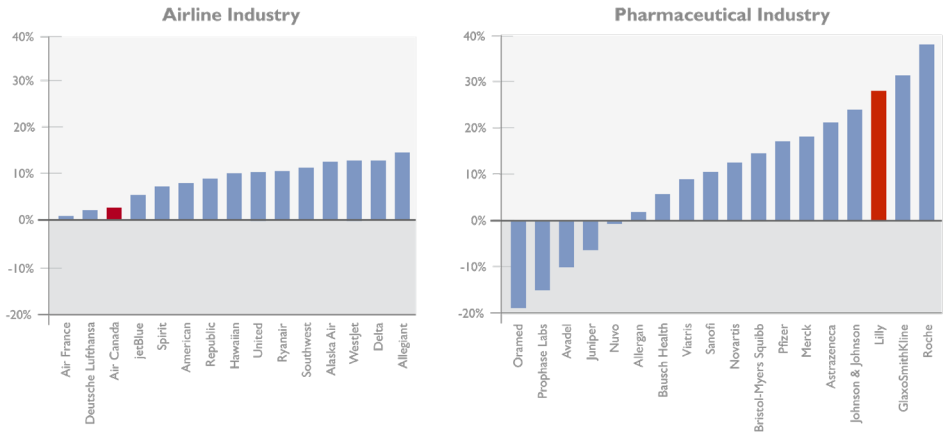
Lilly, however, is not a typical pharmaceutical company, nor is Air Canada a typical airline. As **Exhibit 3** illustrates, industry averages can mask large differences in profitability within industries. Lilly generated a far higher ROIC than many drug companies during the 2005–2021 period, while Air Canada performed much worse than most other airlines. Indeed, research indicates that intra-industry differences in profitability like those shown in Exhibit 3 tend to be larger than differences across industries.[3] Industry-level effects appear to account for 5% to 15% of the variation in profitability across industries, while stable within-industry effects account for 30% to 45% of the variation within an industry. (Most of the remainder can be assigned to effects that fluctuate from year to year.)

EXHIBIT 3 Return on Invested Capital of Selected Airlines and Pharmaceutical Companies, 2005–2021



Source: Compustat, author's calculations.

In light of this, strategists need a systematic way to understand and analyze within-industry differences in performance. Toward that end, this reading develops and explores the notion of competitive advantage. A firm has a competitive advantage over its rivals if it has driven a wide wedge between the amount its customers are willing to pay and the costs it incurs—indeed, a wider wedge than its competitors have achieved.[4] A firm with a competitive advantage is positioned to earn superior profits within its industry.

In focusing on competitive advantage to help explain performance differences within an industry, we are not denying the importance of industry-level effects. Indeed, industry analysis is crucial to creating competitive advantage for several reasons. First, companies that generate competitive advantages typically do so by devising strategies that neutralize the unattractive features of their industries and exploit the attractive features. Second, industry conditions appear to have a large influence on whether competitive advantages are even possible.[5] In some

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industries (e.g., computer leasing), conditions straitjacket firms, leaving them little room to establish a superior wedge between *willingness to pay* and costs. In other industries (e.g., prepackaged software), conditions permit the most effective firms to enjoy large advantages over the least effective. Finally, market leaders often face a tension between managing industry structure and pursuing an advantage within that structure. When deciding how to price a new model of its iPhone, for instance, Apple must weigh the market share gains it might enjoy from a lower price against the benefits the whole market sees when Apple leads the industry toward phones with more features, higher prices, and less price sensitivity.

In examining the logic of how firms create competitive advantage, this reading emphasizes two themes. First, to create an advantage, a firm must configure itself to do something unique and valuable. In other words, the firm must ensure that, were it to disappear, someone in its network of suppliers, customers, and complements would miss it and no one could replace it completely.[6] The first section of the reading uses the concept of *added value* to make this point more precisely. Second, competitive advantage arises only when the full range of a firm's activities—production, finance, marketing, logistics, and so on—acts in harmony. The essence of creating advantage is finding an integrated set of choices that distinguishes a firm from its rivals. The second section of the reading explores the steps involved in analyzing a firm's activities to understand the sources of competitive advantage. The Supplemental Reading section discusses the use of value proposition analysis as a reflection of choices about the particular kinds of value the firm will offer. Whereas value chain analysis and relative cost analysis, discussed in the Essential Reading section, focus internally on a firm's operations, value proposition analysis looks outward at customers.

Two caveats before we proceed: First, for ease of explication, this reading separates the challenge of creating competitive advantage from that of sustaining it. In reality, the two cannot be separated: the choices that establish a firm's advantage also influence whether it can be sustained. Second, this reading takes an analytical approach to competitive advantage, but in actuality, many of the greatest advantages come not from analysis but from insight, experimentation, and trial and error.[7] The analysis described here is not intended to deny the importance of exploratory approaches.

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2 ESSENTIAL READING

2.1 The Logic of Value Creation and Distribution

A firm that has a competitive advantage is one that has added value. To illustrate that concept, which was developed by Adam Brandenburger, Barry Nalebuff, and Harborne Stuart Jr.,[8] consider the portal crane business of Harnischfeger Industries.[9]

Harnischfeger, based in Milwaukee, Wisconsin, manufactured equipment for industrial customers. (It continues to operate as P&H and is a subsidiary of Komatsu Ltd.[10]) Its material-handling equipment division served a range of customers, including forest products companies such as International Paper. In the late 1970s, Harnischfeger began to offer these customers a new product: portal cranes, designed to lift tree-length logs off railcars and trucks and to hoist them around wood yards. The cranes were a significant improvement over the giant forklifts that they replaced.

In fact, it was possible to calculate the customer benefits reasonably precisely. Each crane replaced a fleet of forklifts, which cost roughly $1 million. A crane was less expensive to operate than a forklift fleet; it required less labor, fuel, and maintenance, for instance. As of the 1980s, each crane, over its lifetime, generated an estimated net present value of $6.5 million of savings in operating costs. It cost Harnischfeger only $2.5 million to produce and install each crane. Thus a large gap existed between the customer benefits associated with a crane ($1 million plus $6.5 million) and Harnischfeger's costs ($2.5 million). Despite that gap, by the late 1980s Harnischfeger was making little profit on its sales of portal cranes. Why?

2.1.1 Willingness to Pay and Supplier Opportunity Cost

As we've noted, competitive advantage is associated with creating a large gap between a customer's willingness to pay and the company's cost. That cost can be thought of in terms of the supplier's opportunity cost. (We'll discuss the difference between actual costs and supplier's opportunity cost at the end of this section.) A customer's ***willingness to pay (WTP)*** for a product or service is the maximum amount of money a customer is willing to part with in order to obtain the product or service. A customer considering the purchase of a portal crane from Harnischfeger would be willing to pay as much as $7.5 million for it. If it cost more than that, the customer would be better off buying the forklifts for $1 million and paying the extra $6.5 million to operate them.

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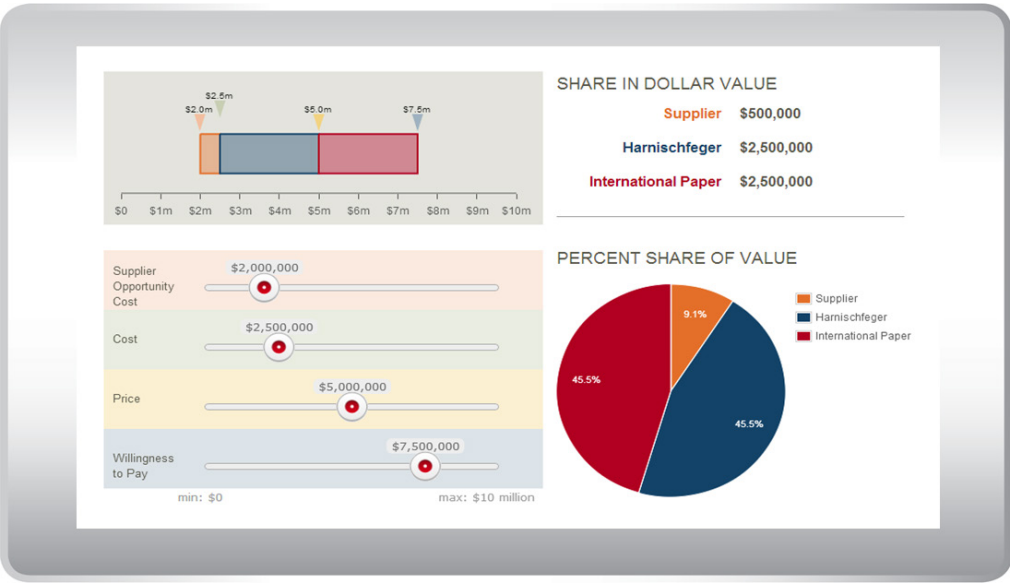
The concept of ***supplier opportunity cost (SOC)*** is symmetrical to willingness to pay. It is the smallest amount a supplier will accept for the services and resources required to produce a good or service. We call this an "opportunity cost" because it is dictated by the best opportunities a supplier has to sell its services and resources elsewhere. In the example, the *actual* cost that Harnischfeger incurred to deliver a portal crane was $2.5 million. We don't know the lowest amount the company's suppliers would have accepted, but we will speculate that it was not far below $2.5 million—say, $2.0 million.

Imagine that Harnischfeger is bargaining with International Paper, one of the largest paper manufacturers, over the price of a portal crane. For now, suppose that Harnischfeger is the only company that can provide a portal crane and that International Paper is the sole customer. The price that emerges from the bargaining may fall anywhere between $2.5 million, Harnischfeger's cost, and $7.5 million, International Paper's willingness to pay. (See **Interactive Illustration 1** for an example of this concept.) Our theory says nothing about where the price will fall within this range. If Harnischfeger is a particularly tough bargainer, then the price will climb toward $7.5 million. If International Paper is more shrewd during negotiations, the price will edge toward $2.5 million.

INTERACTIVE ILLUSTRATION 1 Division of Value

To access the interactive illustration, click on the image or use this link.



Source: Adapted from Adam M. Brandenburger and Harborne W. Stuart Jr., "Value-Based Business Strategy," *Journal of Economics & Management* 5, no. 1 (Spring 1996): 5–24. © 1996 from MIT Sloan Management Review/Massachusetts Institute of Technology. All rights reserved. Distributed by Tribune Content Agency, LLC.

The total value created by a transaction is the difference between the customer's willingness to pay and the supplier's opportunity cost. In the

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example in Interactive Illustration 1, the sale of a crane to International Paper creates a value of $5.5 million: An item worth $7.5 million to the customer is created from supplied resources that had a value of only $2.0 million in their next-best use. The value captured by Harnischfeger is the difference between the negotiated price and the $2.5 million it cost to produce and install the crane. International Paper captures value equal to $7.5 million minus the price, while suppliers capture $0.5 million.

2.1.2 Added Value

A firm's ***added value*** plays a large role in determining how much value it actually captures in a transaction. The added value of a firm is the maximal value created by all participants in a transaction minus the maximal value that could be created without the firm. In essence, it is the value that would be lost to the world if the firm disappeared. Consider the situation with Harnischfeger as the sole provider of cranes and International Paper as the only customer. If Harnischfeger opts out of the transaction, the entire $5.5 million of value goes uncreated. The same is true if International Paper refuses to participate. Both Harnischfeger and International Paper have an added value of $5.5 million.

Now consider what happened in the late 1980s, when Kranco, a management-buyout firm headed by former Harnischfeger executives, entered the market for portal cranes.[11] Assume that Kranco produces an identical product, with a cost of $2.5 million and a supplier opportunity cost of $2.0 million, and it generates the same willingness to pay of $7.5 million. The added value of Harnischfeger is now $0. If it participates in a deal with International Paper, the total value created is $5.5 million. If it opts out, Kranco can fill its place, and the value of $5.5 million is still generated.

Under a condition known as ***unrestricted bargaining***, the amount of value a firm can claim cannot exceed its added value. To see why this is so, assume for a moment that a lucky firm *does* strike a deal that allows it to capture more than its added value. Then the value left over for the remaining participants is less than the value those others could generate by arranging a deal among themselves. The remaining participants could break off and form a separate pact that improves their collective lot. Any deal that grants a firm more than its added value is fragile because of such separate pacts. Once Kranco enters, it is not surprising that Harnischfeger captures little value and is barely profitable. After all, it has little or no added value.

Suppose now that Harnischfeger adds some new services to its core product. (Using **Interactive Illustration 2**, enter the following parameters to demonstrate how Harnischfeger can increase its added value.) The services boost the willingness to pay of International Paper to $9.0 million, but because

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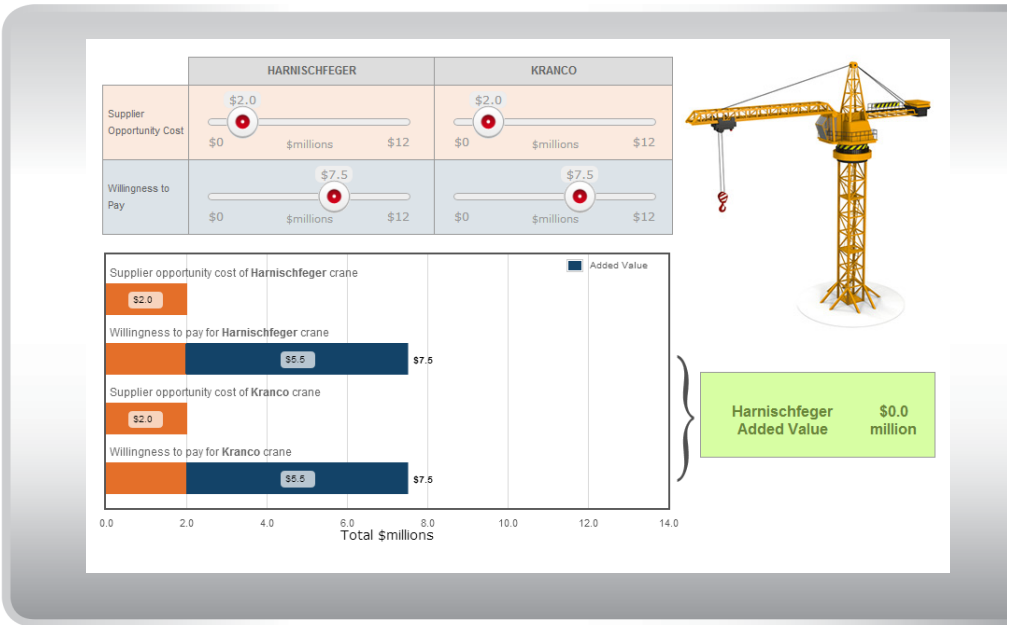
the services entail additional labor, they raise supplier opportunity costs to $3.0 million. The total value created if Harnischfeger participates is now $9.0 million – $3.0 million = $6.0 million. The total value if Harnischfeger opts out and Kranco provides the crane is $7.5 million – $2.0 million = $5.5 million. The new services boost Harnischfeger's added value from $0 to $0.5 million, essentially because they raise willingness to pay by more than they increase supplier opportunity costs. By widening the gap between willingness to pay and supplier opportunity cost, Harnischfeger increases the amount of value it can claim.

INTERACTIVE ILLUSTRATION 2 Added Value Concept

To access the interactive illustration, click on the image or use this link.



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2.1.3 Added Value and Competitive Advantage

The logic laid out so far suggests that a firm can boost its added value by widening the wedge between customer willingness to pay and supplier opportunity cost. We say that a firm with a wider wedge than its rivals has a competitive advantage in its industry. That firm has added value and therefore the potential for profit. The notion of added value highlights the fact that competitive advantage derives fundamentally from *scarcity.* A firm establishes added value by making sure that it is unique in some valuable way—that the network of suppliers, customers, and complementors within which it operates is more productive with it than without it and that it is not readily replaced.

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There are two basic ways a firm can establish an advantage. First, it can raise customers' willingness to pay for its products without incurring a commensurate increase in supplier opportunity cost. Second, it can reduce supplier opportunity cost without sacrificing willingness to pay. Either approach establishes the wider wedge that can define competitive advantage.

2.1.4 Supplier Opportunity Costs Versus Actual Costs

So far, we have treated buyers, with their willingness to pay, and suppliers, with their opportunity costs, symmetrically. Just as willingness to pay captures the most that buyers will pay for a product, opportunity cost is the least that suppliers will accept for the resources used to make a product. The symmetry is useful: It reminds us that competitive advantage can come from better management of supplier relations, not just from a focus on downstream customers. Recent efforts to streamline supply chains reflect the importance of driving down supplier opportunity costs.

In practice, however, managers often examine *actual* costs, not opportunity costs, because data on actual costs are concrete and available. In the remainder of this reading, we focus on the analysis of actual costs. We assume, in essence, that supplier opportunity costs and actual costs track one another closely. A firm's quest for competitive advantage then becomes a search for ways to widen the wedge between actual costs and willingness to pay.

2.2 The Tension Between Cost and Willingness to Pay[12]

Widening the wedge between cost and willingness to pay is difficult because a firm must often incur higher costs in order to deliver a product or service for which customers are willing to pay more. Among US grocery retailers, for instance, Whole Foods Market was long able to charge more than larger competitors such as Kroger, Safeway, and Publix because of its high-quality organic foods, fresh and locally-sourced produce, locations in affluent neighborhoods, and helpful employees. Those same choices, however, led to higher costs: Whole Foods paid a premium to its organic and local suppliers, incurred relatively high rents, and gave its employees more generous pay and benefits than did many rivals. Whole Foods' attractive margins through the mid-2010s arose because the difference between what its customers were willing to pay and what its rivals' customers were willing to pay was greater than the incremental costs it incurred. As large supermarket chains devised ways in the late 2010s to offer a wide variety of fresh organic foods at lower costs, Whole Foods' competitive advantage eroded, and its growth slowed.[13]

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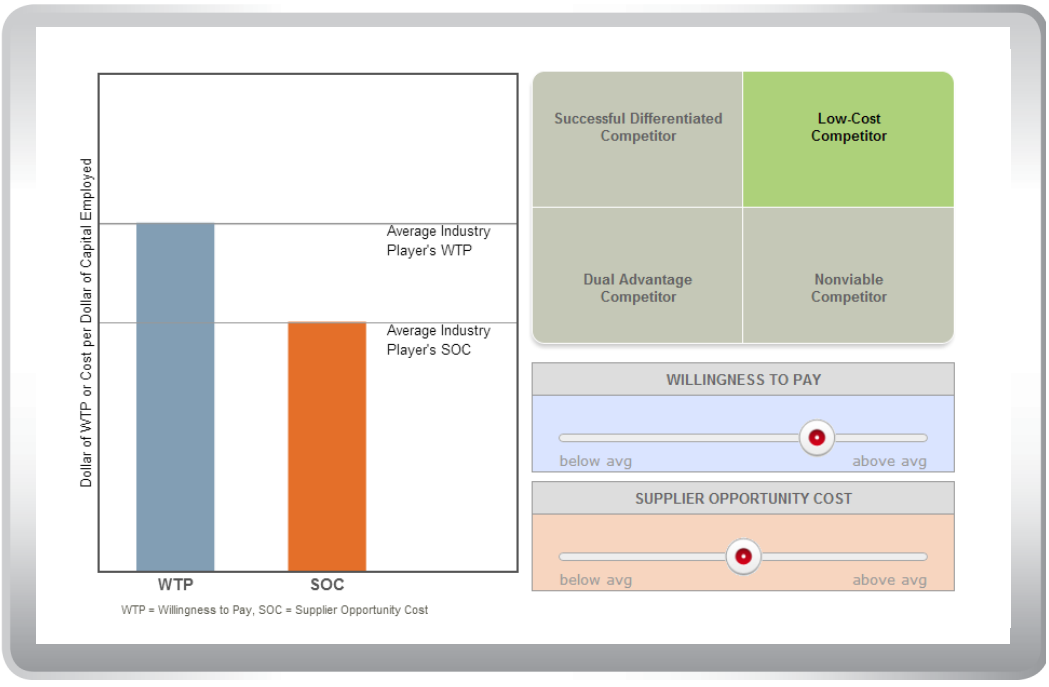
As noted above, a firm can achieve a competitive advantage by devising a way to (1) raise willingness to pay a great deal with only slight increases in costs or (2) reap large cost savings with only slight decreases in customer willingness to pay. We call the first a ***differentiation strategy*** and the second a ***low-cost strategy*** (**Interactive Illustration 3** illustrates the concepts).[14]

Hilti, a Liechtenstein-based producer of power tools, illustrates a differentiation strategy. Hilti focuses on commercial customers such as construction companies, and tailors all of its choices to serve that segment well. For example, it invests deeply in R&D, incorporates the latest technology into its tools, involves customers in its development processes, sells directly, sends personnel often to customers' job sites, emphasizes product demonstrations in its sales efforts, and avoids retail channels. As a result, Hilti incurs high costs relative to rival tool makers but commands very high prices.[15]

INTERACTIVE ILLUSTRATION 3 Types of Competitive Advantage Within a Specific Segment

To access this interactive illustration, click on the image or use this link.



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It's important to note that the term *differentiated* is often misused. When we say that a firm has differentiated itself, we mean that it has boosted the willingness of customers to pay for its output—that it commands a price

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premium. We do not mean simply that the company is different from its competitors. Hyundai is certainly different from Toyota, but it is not differentiated with respect to Toyota. Similarly, a company does not differentiate itself by charging a lower price than its rivals. A firm's choice of price does not usually affect how much customers are intrinsically willing to pay for a good.[a]

A *low-cost strategy* is exemplified by Ryanair, the no-frills Irish airline. By stripping out every amenity (even window shades and reclining seats on some flights), achieving very high aircraft utilization, giving employees strong incentives to save money, and negotiating hard with every supplier, Ryanair has driven its costs per passenger down to very low levels. The steps taken to reduce costs also result in lower willingness to pay among customers, but for the customers that Ryanair targets—price-sensitive European travelers on short flights—the cost savings are greater than the loss in willingness to pay.[16]

The tension between cost and willingness to pay is not absolute: Some firms can discover ways to produce superior products at lower cost and thus achieve a ***dual competitive advantage***. In the 1970s and 1980s, for instance, Japanese manufacturers in a number of industries found that by reducing defect rates, they could make higher-quality products at lower cost. In the market for certain memory chips, Samsung discovered that by being the first to release new generations of chips, it could both command a price premium and gain the volume and production experience that would give it a cost advantage.[17] In the market for building toys, the LEGO Group has been able to command a higher willingness to pay among its many devoted customers while also achieving low costs through enormous scale, very efficient operations, and designs that reuse the same building bricks in numerous products.[18] Examples of companies that achieve both differentiation and low cost are noteworthy and well worth understanding.[19]

Strategy scholars debate how common dual advantages are. Some argue that they are rare and are typically based on operational practices across firms that are easily copied.[20] Others contend that breaking the trade-offs between cost and willingness to pay—replacing trade-offs with "trade-ons"—is a fundamental way to transform competition in an industry.[21]

There are many ways to resolve the tension between cost and willingness to pay. Some examples illustrate the possibilities:

- Apple has boosted willingness to pay to an enviable degree in several product categories—digital music players, mobile phones, and tablets—

[a] Exceptions to this rule arise when the price of a good conveys information about it. such as in the luxury retail sector, for example.

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and can charge large premiums compared with its competitors. One key has been product innovation. For decades, Apple has consistently developed products that have determined the aspirations of their product categories. These products are almost product lines unto themselves. An iPod was not just another digital music player, an iPhone is not just another mobile phone, and an iPad is not just another tablet. Superior technical expertise, attention to design, and materials all raise the cost of these products, but customers are willing to pay much more for them because they perform functions that other products in their class either fail to perform or perform only with great effort on the part of the user. Apple has also created complementary products that are free to the end user (such as access to the App Store), made its products more useful and convenient than those of its competitors, and thus boosted customers' willingness to pay. While developing these complements and providing them for free to customers has been costly, Apple has recouped its investment (and then some) by charging the sellers of music, apps, and other content for access to its customer base.[22]

- Barry-Wehmiller, a maker of industrial equipment, has built a portfolio with over $3 billion in annual revenues largely by buying, improving, and growing midsized firms—in all, more than 115 acquisitions.[23] The company distinguishes itself through what it calls "truly human leadership": a deep commitment to value its "team members" and to measure success "by the way we touch the lives of people."[24] This approach makes team members more responsive to urgent customer requests, which boosts willingness to pay among its industrial customers, and it encourages team members to share cost-saving ideas, even ones that reduce labor. The approach also enables Barry-Wehmiller to acquire companies at lower prices, especially when the prior owners care how their employees will be treated after the acquisition.[25]
- The grocer Trader Joe's stands out by stocking novel, easy-to-prepare food items. While it sets higher prices than discount supermarkets do for some of its items, Trader Joe's offers an in-store experience, a quirky mix of high-quality store brands, and customer service that more than offset its premium.[26] As a result, the company consistently appears at the top of customer satisfaction and loyalty ratings among food retailers.[27]

2.3 Activity Analysis

How can one identify opportunities to raise willingness to pay by more than costs or to drive down costs without sacrificing too much willingness to pay? Sheer insight into customers and supply chain dynamics certainly plays a large role. For example, Reed Hastings sees the advent of DVDs and the Internet, realizes that brick-and-mortar video rental stores add more costs than benefits for many customers, and founds the DVD-by-mail service Netflix. Or Tory Burch recognizes that ambitious midcareer women are willing to pay a substantial

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premium for tasteful clothing and accessories, which her company can design and source at modest costs. Dumb luck also plays a role: Engineers searching for a coating material for missiles in the 1950s discovered the lubricant WD-40, whose sales continued to generate a return on equity between 40% and 50% four decades later.

We believe, however, that smart luck beats dumb luck and that analysis can hone insight. To analyze competitive advantage, strategists typically separate a firm into its discrete activities or processes and then examine how each contributes to the firm's relative cost position or willingness to pay.[28] The activities undertaken to design, produce, sell, deliver, and service goods are what ultimately incur costs and generate willingness to pay. Differences across firms in those activities—i.e., what firms actually do every day—hence dictate competitive advantage. By analyzing a firm activity by activity, managers can

1. understand why the firm does or does not have a competitive advantage,
2. spot opportunities to increase a firm's competitive advantage, and
3. foresee shifts in competitive advantage.

A firm's managers generally analyze activities in four steps. First, they catalog the firm's activities. Second, they examine the costs associated with each activity, and they explore differences in rivals' activities to understand how and why their own costs are higher or lower. Third, they analyze how each activity generates customer willingness to pay, and they study differences in competitors' activities to examine how and why their customers are willing to pay more or less. Finally, they consider changes in the firm's activities that could widen the wedge between costs and willingness to pay. Let's discuss these steps in order.

2.3.1 STEP 1: Catalog Activities (The Value Chain)

In the remainder of this reading, we employ an activity template, the ***value chain***, that illustrates the sequence of activities or discrete economic functions a company performs to design, produce, sell, deliver, and support its products.[29] The template divides activities into two classes: primary activities that directly generate a good or service, and support activities that make the primary activities possible. Primary activities are broken down further into inbound logistics, operations, outbound logistics, marketing and sales, and post-sales service. Support *activities* include procurement of inputs, development of technology and human resources, and general firm infrastructure.

To illustrate what an activity analysis looks like, **Interactive Illustration 4** shows the value chain for Irizar, a Spanish-based manufacturer of luxury buses and coaches.

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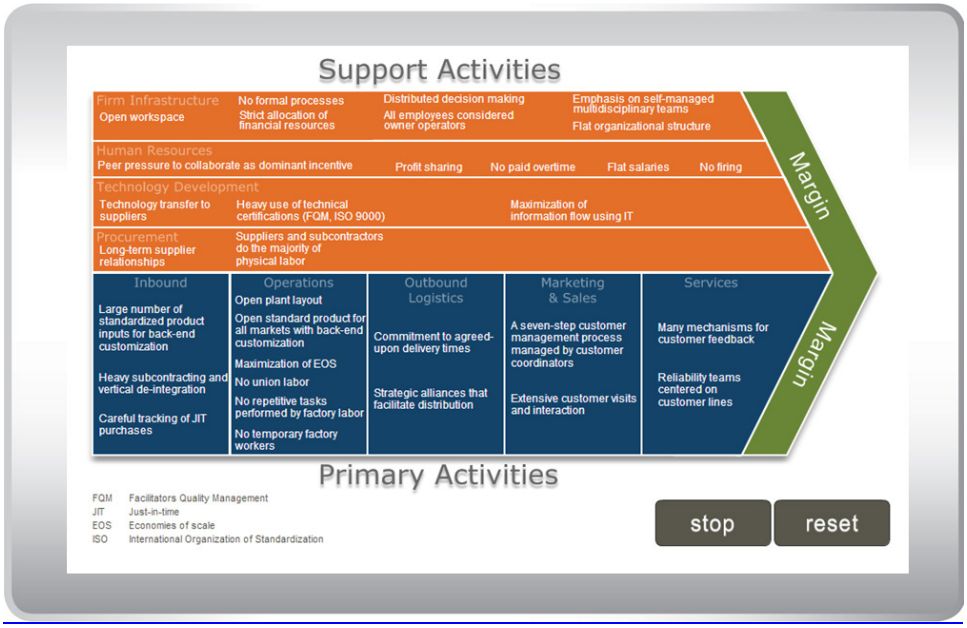
INTERACTIVE ILLUSTRATION 4 Irizar's Value Chain

To access this interactive illustration, click on the image or use this link.



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It's important to note that the value chain should not represent everything the firm does. Instead, it is intended to highlight the activities that the firm does differently from competitors, including what it does not do that its competitors might. Consider Hurtigruten, the Norwegian company that is a leading provider of expedition cruises to the polar regions. Many of its activities are distinctive from those of other expedition cruise companies and should be noted in an activity analysis. For instance, it sails ships with 500 beds instead of the typical 150, and it sets prices relatively low in order to fill its larger ships. The analysis should also highlight that Hurtigruten foregoes some activities which many rivals undertake: it avoids luxuries like butlers and focuses instead on scientific pastimes for guests. Activities where Hurtigruten is very similar to competitors (e.g., its approaches to maintenance and crew compensation) don't warrant attention in an activity analysis.[30]

2.3.2 STEP 2: Use Activities to Analyze Relative Costs

Once activities have been cataloged, they must be analyzed in terms of their impact on cost and willingness to pay *relative to the competition.* To illustrate this analysis, we focus on a simple example: the snack cake market in the

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western region of Canada.[b] Between 1990 and 1995, Betsy Baking increased its share of this market from a meager 1% to nearly 20%. At the same time, Collins Kitchen, a regional maker of such longtime favorites as Dinklets and Angel Dogs, saw its dominant 45% share dwindle to 25%. An analysis of relative costs and willingness to pay shows why Betsy Baking and Collins fared so differently.

Competitive cost analysis is the usual starting point for the strategic analysis of competitive advantage. In pure commodity businesses such as wheat farming, customers refuse to pay a premium for any producer's product. In such a setting, in industries that are not pure commodities, differences in cost often have a large influence on differences in profitability.

Cost analysis was one of the efforts that managers at Collins Kitchen undertook in the mid-1990s, as they struggled to understand why their financial performance was poor and their market share plummeting. They cataloged the major elements of their value chain and calculated the costs associated with each class of activities. As **Interactive Illustration 5** shows, Collins sold the typical package of snack cakes to retailers for 72¢, and raw materials (ingredients and packaging material) accounted for 18¢ per unit. Operation of automated baking, filling, and packaging production lines (largely depreciation, maintenance, and labor costs) amounted to 15¢. Outbound logistics—delivery of fresh goods directly to convenience stores and supermarkets, and maintenance of shelf space—constituted the largest portion of costs, 26¢. Marketing expenditures on advertising and promotions added another 12¢. A mere penny remained as profit for Collins.

For each activity, the managers then determined the ***cost drivers***, the factors that increase or decrease the cost of an activity. For instance, managers realized that the cost of outbound logistics per snack cake fell rapidly as the firm increased its local market share; total delivery costs depended largely on the number of stops that a truck driver had to make, and the larger the firm's market share, the more snack cakes a driver could deliver per stop. Urban deliveries tended to be more expensive than suburban deliveries because city traffic slowed down drivers. Outbound logistics costs also rose with product variety; a broad product line made it difficult for drivers to restock shelves and remove out-of-date merchandise. Finally, the nature of the product affected logistics costs: Snack cakes with more preservatives could be delivered less frequently. The managers developed numerical relationships between activity costs and drivers for outbound logistics activities and for the other activities in Interactive Illustration 5.

[b] The authors thank Roger Martin, formerly of Monitor Company, for this example. Identities of the companies and other items have been altered substantially to protect proprietary information.

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INTERACTIVE ILLUSTRATION 5 Cost Component Analysis

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Cost drivers are critical because they allow managers to estimate *competitors'* cost positions. One usually cannot observe a competitor's costs directly, but one can often observe the drivers. One can see, for instance, a competitor's market share, the portion of its sales in urban areas, the breadth of its product line, and the ingredients in its products. Using their own company's costs and the numerical relationships to cost drivers, managers can estimate a competitor's cost position.

When Collins's managers did this for Betsy Baking, they found the results sobering. Because Betsy Baking used inexpensive raw materials, purchased in bulk, and tapped national scale economies, its operations costs totaled 20¢, in contrast to 33¢ for Collins. Betsy Baking packed its products with preservatives so that deliveries could be made less frequently, kept its product line very simple, and benefited from growing market share. Consequently, its logistics costs per unit were less than half of Collins's. Also, Betsy Baking did not run promotions. The managers estimated that, altogether, a package of Betsy Baking snack cakes cost only 35¢ to produce, deliver, and market. Comparisons with the two other major competitors, Ontario Baking and Savory Pastries, were not so discouraging. Indeed, Collins had a small cost advantage over each. (See **Interactive Illustration 6**.)

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INTERACTIVE ILLUSTRATION 6 Relative Cost Analysis

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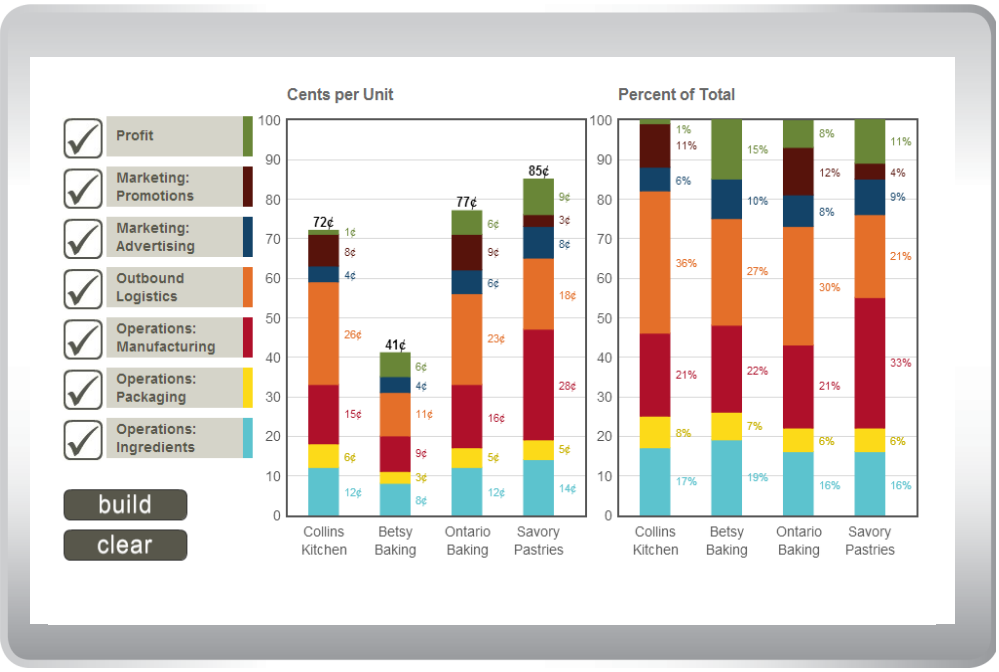

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This example illustrates several points about relative cost analysis:[31]

- **When reviewing a relative cost analysis, it is important to focus on differences in individual activities, not just differences in total cost.** Ontario Baking and Savory Pastries, for instance, had similar total costs per unit. The two firms had different cost structures, however, and as we will discuss below, those differences reflected distinct competitive positions.
- **Good cost analyses typically focus on a subset of a firm's activities.** The cost analysis in Interactive Illustration 6, for example, does not cover all activities in the snack cake value chain. Effective cost analyses usually break out in greatest detail cost categories that (1) pick up on significant differences across competitors or strategic options, (2) correspond to technically separable activities, and (3) are large enough to influence the overall cost position significantly.
- **For activities that account for a thicker slice of costs, it's important to look closely at cost drivers.** Clicking on outbound logistics in Interactive Illustration 6 highlights the importance of this component in the overall cost structure. The snack cake managers assigned several cost drivers to outbound logistics and explored them in depth. They spent little time considering the drivers of advertising costs. The analysis of any

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cost category should focus on the drivers that have the biggest impact on it.

- **A particular cost driver should be included only if it is likely to vary across the competitors under consideration.** In the snack cake example, manufacturing location influenced wages rates and therefore operations costs. All of the rivals manufactured their snack cakes in western Canada, however, and manufacturing elsewhere was not an option because shipping was costly and goods had to be delivered quickly. Consequently, manufacturing location was not included in the analysis.
- **Finally, because the analysis of relative costs inevitably involves a large number of assumptions, sensitivity analysis is crucial.** [32] Sensitivity analysis identifies the assumptions that really matter and therefore need to be honed. It also tells the analyst how confident he or she can be about the results. Under any reasonable variation of the assumptions, Betsy Baking had a substantial cost advantage over Collins.

A number of references discuss cost drivers in greater detail and suggest specific ways to model them numerically.[33] The catalog of potential drivers is long. Many relate to the size of the firm: economies of scale, economies of experience, economies of scope, capacity utilization, and so on. Others relate to differences in firm location, functional policies, timing (e.g., first-mover advantages), institutional factors such as unionization, government regulations such as tariffs, and so forth. Differences in firms' *resources* may also drive differences in activity costs. A farm with more productive soil, for instance, will incur lower fertilization costs.

Newcomers to cost analysis often encounter pitfalls. Many companies, particularly ones that produce large numbers of distinct products in a single facility, still have grossly inadequate costing systems that must be cleaned up before they can be used as reference points for estimating competitors' costs. As courses on management accounting point out, conventional accounting systems often overemphasize manufacturing costs and do a poor job of allocating overhead and other indirect costs. As firms increasingly sell services and transact on the basis of knowledge, these outdated systems make it harder and harder to analyze costs intelligently.[34] The tendency to express costs as a percentage of sales rather than in absolute dollar terms also presents problems, confounding cost and price differences. In addition, it is common, but dangerous, to mix recurring costs and one-time investments. Some analysts also confuse differences in firms' costs with differences in their product mixes. One can avoid that by comparing the cost positions of comparable products. For instance, compare Volkswagen's four-cylinder, midsize family sedan to Toyota's four-cylinder, midsize family sedan, not some imaginary "average" Volkswagen to some "average" Toyota. Finally, an examination of costs should not crowd out consideration of customer willingness to pay, which is the focus of the next step.

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2.3.3 STEP 3: Use Activities to Analyze Relative Willingness to Pay

A firm's activities do not just generate costs. They also, as one hopes, make customers willing to pay for the product or service. Differences in activities account for differences in willingness to pay and hence for competitive advantage and differences in profitability. In general, research indicates that differences in willingness to pay account for more of the variation in profitability observed among competitors than do disparities in cost levels.[35]

Almost any activity in the value chain can affect customers' willingness to pay for a product.[36] As we saw with Apple, most obvious are the product design and manufacturing activities that influence physical product characteristics such as quality, performance, features, aesthetics, and durability. More subtle are the activities associated with sales and delivery. Amazon, for example, has focused on making it easy and convenient to buy through Amazon Prime, which offers free, fast shipping through a network of fulfillment centers. Activities associated with post-sales service or complementary goods—customer training, consulting services, spare parts, product warranties, repair service, compatible products—also affect willingness to pay. For example, American consumers might hesitate to buy a Fiat automobile because they know that spare parts and service can be hard to obtain. Signals conveyed through advertising, packaging, branding efforts, and so on, also play a role in determining willingness to pay. Nike's advertising and endorsement activities, for instance, have boosted customers' willingness to pay for its sports apparel. Finally, support activities can have a surprisingly large, if indirect, impact on willingness to pay. At Barry-Wehmiller, the company's distinctive human resource practices—from its recognition programs and its resistance to layoffs to its training efforts and its compensation plan—play a key role in driving high service levels, customer confidence, and ultimately, willingness to pay.[37]

Ideally, a company would have a "willingness-to-pay calculator"—a formula that would reveal how much customers would pay for a given combination of activities. But such a calculator is almost always beyond a firm's grasp, in large part because willingness to pay often depends heavily on intangible factors and perceptions, which are hard to measure. Moreover, activities can affect willingness to pay in complicated (that is, nonlinear and nonadditive) ways. When a business sells to end users through intermediaries rather than directly, willingness to pay depends on the activities of multiple parties.

Lacking a willingness-to-pay calculator, most managers analyze relative willingness to pay in a simplified manner, based on four key questions:

- **Who is the buyer?** First, they think carefully about who the *real* buyer is. This can be tricky. In the market for snack cakes, for instance, the

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immediate purchaser is a supermarket or convenience store executive. The ultimate consumer is typically a child. But the pivotal decision maker is probably an adult, often a parent.

- **What does the buyer want?** Second, managers work to understand what the customer wants. The snack-cake-buying parent, for example, selects among brands on the basis of price, brand image, freshness, product variety, and the number of servings per box.[c] The supermarket or convenience store executive chooses a snack cake on the basis of trade margins, turnover, reliability of delivery, consumer recognition, merchandising support, and so forth. Marketing courses discuss using formal or informal market research to pinpoint customer needs and desires.[38] It is important that such research identify not only what customers *want,* but also what they *are willing to pay for.* It should also reveal what the most important needs are and how customers make trade-offs among them.
- **How well are the buyer's needs being met?** Third, managers assess how successful they and their competitors are in fulfilling customer needs. **Exhibit 4** shows such an analysis for the snack cake market. The analysis helps us understand both the static and dynamic elements of the marketplace. Betsy Baking stands out on a need that customers greatly value, low price, while Collins is superior on none. This helps us understand the large shifts in market share. Ontario Baking enjoys the best brand image—a position it has paid for through relatively heavy advertising and promotion. (See Interactive Illustration 6.) Savory Pastries delivers the freshest product, reflected in its high manufacturing and raw materials costs. Further analysis, not carried out in the snack cake example, can assign dollar values to customer needs, such as how much a customer will pay for a product that is one day fresher.
- **How can differences in meeting the buyer's needs be linked to activities?** Finally, managers relate differences in success in meeting customer needs back to activities. Savory Pastries' high score on the freshness need, for instance, can be tied directly to specific activities regarding procurement and selection of ingredients, manufacturing, and delivery.

[c] We present low price as an attribute that buyers seek. This should not be misunderstood as a statement that price determines willingness to pay. Rather, price is included as an attribute in surveys of customer needs so that one can calibrate the willingness of customers to pay a price premium for the other attributes in the survey (such as freshness).

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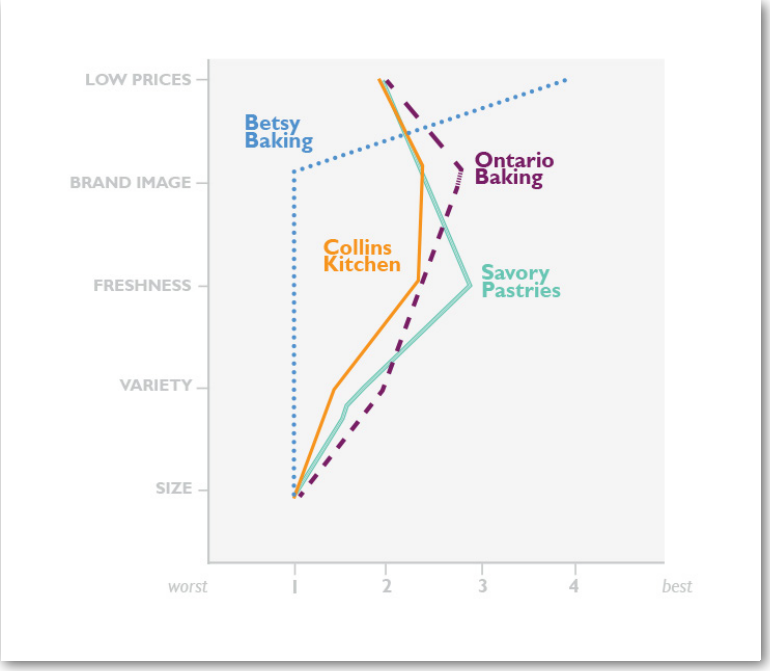
EXHIBIT 4 Relative Success in Satisfying Customer Needs



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Guidelines for Analyzing Willingness to Pay

At this point, managers should have a refined idea of how activities translate, through customer needs, into willingness to pay. They should also understand how activities alter costs. Now they are prepared to take the final step: the analysis of different strategic options. Before we move on to that step, however, we should highlight some guidelines concerning the analysis of willingness to pay.

A major challenge in analyzing willingness to pay is narrowing down the long list of customer needs. In general, needs that have little effect on customer choice can be ignored. Needs that are satisfied equally well by all current and envisioned products can usually be neglected. If the group of competing products plays a small role in satisfying a need relative to other products outside the group, the need can often be removed from the list.

So far, we have treated all customers as identical. In reality, of course, buyers differ in what they want and how badly they want it. Some customers in a bookstore want novels, while others look for business books. This type of disparity, in which customers rank products differently, is known as ***horizontal differentiation***. ***Vertical differentiation*** arises when customers agree on which

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product is better. When waiting for a sequel from a favorite author, some readers enthusiastically purchase the hardcover the moment it is released. Others may like the book, but not with such passion; they are willing to wait for the less costly paperback. In this case, all buyers agree that reading the book sooner is better than reading it later—but buyers differ in how much extra they will pay for reading it sooner.

The analysis of willingness to pay is trickier, but more interesting, when customers differ in their preferences. The usual business response is segmentation: One first finds clumps of customers who share preferences and then analyzes willingness to pay segment by segment. In our experience, firms that take this approach generally pinpoint between 2 and 12 customer segments. The more diverse customer needs are, and the cheaper it is to customize the firm's product or service, the more segments a firm typically considers.

Some observers have even argued that companies should move beyond segmentation to embrace ***mass customization***.[39] In this approach, enabled by information and production technologies, companies tailor their products to individual customers. For example, Mymuesli, a German breakfast cereal provider, allows customers to design their own cereal (or muesli) on its website. Threadless, a Chicago-based online T-shirt company, takes mass customization a step further into a kind of open source process, involving its community of more than half a million users in the various aspects of design and product development.[40] ChemStation tailors its industrial cleaning solutions to the specifications of individual industrial customers and delivers those solutions to customer facilities across various commercial sectors.

Finally, we want to emphasize the limits to analyzing willingness to pay. In some settings, it is possible to quantify it quite precisely. For example, as we saw in the Harnischfeger example, when a firm provides a good that saves customers a well-understood amount of money, it is relatively easy to calculate willingness to pay. Calculations are much more difficult, however, when there is a large subjective component to buyer choice, when customer tastes are evolving rapidly, and when the benefits the customer derives from the product are hard to quantify. A wide range of market research techniques—surveys, hedonic pricing, attribute ratings, conjoint analysis, and so on—are designed to make calculations easier in such circumstances. We remain leery, however, especially when the market research asks people to assess their willingness to pay for new products they have never seen or for the satisfaction of needs they themselves may not realize they have. Market research "proved" that telephone answering machines would sell poorly, for instance.[41] In some settings, creative insight may have to replace analysis. In other settings, especially online, experimentation

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with actual prices can shed light on willingness to pay. In all settings, analysis should serve to hone insight, not displace it.

2.3.4 STEP 4: Explore Options and Make Choices

The final step in the analysis of cost and willingness to pay is to search for ways to widen the wedge between the two. By this point, the management team has all it needs to understand how changes in activities will affect competitive advantage. The goal now is to find favorable options. The generation of options is ultimately a creative act, and it is difficult to establish guidelines for it. However, we can suggest a few patterns from past experience:

- **It is often helpful to identify each competitor's essential driver.** Betsy Baking, for instance, saw that preservatives were a substitute for fast delivery. By adding preservatives to its physical product, it could reduce its delivery costs substantially. This move reduced customers' willingness to pay, but the reduction was smaller than the resulting cost savings. The process of distilling drivers often suggests new ways to achieve competitive advantage. Savory Pastries, for instance, was tapping a willingness to pay for freshness. The Collins managers, however, felt that Savory was not fully exploiting this customer need: A product even fresher than Savory's might command a large premium, and this might be the basis for a substantial competitive advantage.
- **When considering changes in activities, it is crucial to anticipate competitors' reactions.** In the snack cake example, the Collins managers felt that Betsy Baking would readily launch a price war against any competitor that tried to match its low-cost, low-price strategy. They were less concerned about an aggressive response from Savory Pastries, whose managers were distracted by an expansion into a different business.
- **In crafting alternatives, managers tend to focus too much on physical product characteristics and too little on benefits to buyers.** Rarely do they fully consider how their activities can create a wedge between willingness to pay and costs. One way to avoid a narrow focus is to draw not only one's own value chain, but also the value chains of customers and suppliers and the linkages between the chains.[42] Such an exercise can highlight ways to reduce buyers' costs, improve buyers' performance, reduce suppliers' costs, or improve suppliers' performance. Some apparel manufacturers, for instance, have found new ways to satisfy department store buyers that have nothing to do with the clothes. By shipping clothes on the proper hangers and in certain containers, manufacturers can greatly reduce the labor and time required to get clothes from the department store loading dock to the sales floor.
- **In rapidly changing markets, it is often valuable to pay special attention to "bleeding edge" customers**—exacting buyers whose demands presage the needs of the larger marketplace. While other manufacturers of environmentally friendly automobiles sold their mass-

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produced products on the basis of low cost and low emissions, Tesla marketed its first model, the Roadster, to car and technology enthusiasts and used their expert input (not all positive) to plan its second car, the Model S, for a wider production run. IMVU, the online social entertainment website, originally sold its chat service to customers in a beta version and then used the feedback gained from "earlyvangelists" through e-mail, surveys, and online forums to prepare its service for a wider release.[43]

- **Underserved customer segments often point the way to creative alternatives.** The dating website eHarmony succeeded by catering to individuals looking for committed romantic partnerships—individuals poorly served by most dating sites, which tend to foster casual relationships.[44] The dating app Tinder took off by focusing on casual relationships but aiming for younger customers who disliked preexisting dating websites, appreciated Tinder's emphasis on a mobile app, and enjoyed its game-like interface.[45] Overserved customers can offer an opportunity as well. Ikea has thrived by selling basic, low-cost furniture to price-sensitive customers who place little value on the styling, durability, assembly, and delivery services offered by traditional furniture stores.
- **One of the most potent ways a firm can widen the gap between willingness to pay and costs is to adjust the *scope* of its operations**—that is, change the range of customers it serves or products it offers. Broad scope in an industry tends to be advantageous when there are significant economies of scale, scope, and learning; when customers' needs are relatively uniform across market segments; and when it is possible to charge different prices for different segments. Of course, broader isn't always better: There may be diseconomies rather than economies of scope, and attempts to serve heterogeneous customers may introduce compromises into a firm's value chain or blur its message among customers and employees.[46] And even when broader *is* better, a firm can expand its reach in various ways, some of which (such as licensing, franchises, or strategic alliances) fall short of an outright expansion of scope.
- **Another path is to reverse the process and take an options-first approach.** Here, we have laid out a process in which a management team develops a comprehensive grasp of how activities affect costs and willingness to pay, and *then* considers options to widen the wedge between the two. In practice, it is often efficient and effective to reverse this process—to start with a set of options, articulate what each implies for activities, and then analyze the impact of each configuration of activities on the wedge between cost and willingness to pay. By starting with options, managers can focus on the analyses that truly matter. Of course, this alternative process works best when managers have a good grasp of the options available to them.[47]

In general, a firm should scour its value chain for, and eliminate, activities that generate costs without creating commensurate willingness to pay. It should also

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search for inexpensive ways to increase willingness to pay, at least among a targeted segment of customers.

2.3.5 The Whole Versus the Parts

The analysis we have described focuses on decomposing the firm into parts—discrete activities. In the final step of exploring options, however, the management team must work vigilantly to build a vision of the whole. After all, competitive advantage, like successful strategy in general, comes from an *integrated set* of choices about activities. A firm whose choices are internally inconsistent is unlikely to succeed.

We have found a *landscape metaphor* helpful to describe the dilemma facing managers who are searching for a set of choices that will yield competitive advantage.[48] In conceptual terms, managers of a firm operate in a multidimensional space of decisions. Each point in this space represents a different set of choices, a different configuration of activities. The elevation corresponding to each point is the added value generated by that configuration. The goal of the senior management team is to guide its firm to a high point on this landscape—a set of decisions that, together, generate a great deal of added value. The search for high ground is made difficult by the fact that the different choices interact with one another: Production decisions affect marketing choices, distribution choices need to fit with operations decisions, compensation choices influence a whole range of activities, and so forth. Each interaction implies that a choice made on one dimension affects the cost and willingness-to-pay impact of another choice. Graphically, the interactions make the surface of the landscape rugged, with lots of local peaks.

The ruggedness of the landscape has a couple of vital implications. First, it suggests that incremental analysis and incremental change are unlikely to lead a firm to a new, fundamentally higher position. Rather, a firm must usually consider changing many of its activities in unison in order to attain a higher peak. To improve its long-term prospects, a firm may have to step down and tread through a valley. (Consider the wrenching and far-reaching changes involved in any significant business turnaround.) Second, the ruggedness implies that there is often more than one internally consistent way to do business within an industry. There are certainly only a few viable positions, but when the interactions among choices are rich, there is usually more than one high peak. In the retail brokerage business, for instance, both Merrill (previously Merrill Lynch) and Edward Jones succeed, but they do so in very different ways. Merrill operates large offices in major cities, provides access to a full range of securities, advertises nationally, offers in-house investment vehicles, and serves corporate clients. Edward Jones operates thousands of one-broker offices in

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rural and suburban areas, handles only conservative securities, markets by means of door-to-door sales calls, produces none of its own investment vehicles, and focuses almost exclusively on individual investors.[49] The two firms occupy quite different peaks on the landscape of the financial services industry.[d]

The landscape metaphor reminds us that the creation of competitive advantage involves *choice.* In occupying one peak, a firm forgoes an alternative position. It also highlights the role of competition: It is often more valuable to inhabit one's own peak than to crowd onto a summit that is already heavily populated. Finally, it emphasizes the importance of internal consistency. Peaks are coherent bundles of mutually reinforcing choices.

2.4 Concluding Thoughts

This reading has covered a lot of ground, but the main ideas are fairly straightforward:

- A successful firm does not simply participate in an attractive industry. It also strives to generate greater profits than the typical firm in its industry.
- The ability to generate and capture profits in an industry derives from added value. A firm has added value when the network of customers, suppliers, and complements in which it operates is better off with the firm than without it; the firm offers something that is unique and valuable in the marketplace.
- A firm usually can't claim any value unless it adds some value.
- To have added value, a firm must drive a wedge between customers' willingness to pay and supplier opportunity cost—indeed, a wider wedge than the firm's rivals can achieve. A firm that attains a wider wedge is said to have a competitive advantage.
- To establish a competitive advantage, a firm has to do different things than its rivals on a daily basis. These differences in activities, and their effects on relative cost and relative willingness to pay, can be analyzed in detail.
- A firm can use its analysis of activities to generate and assess options for creating competitive advantage. In doing so, the management team must deconstruct the firm into parts but also craft a vision of an integrated whole.

[d] Of course, there was a period during the financial crisis of 2008–2009 when Merrill Lynch was close to collapse and was saved only by being sold off to Bank of America. During that time, Edward Jones also struggled, but it did not have to lay off a single employee.

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3 SUPPLEMENTAL READING[e]

3.1 Analyzing Value Propositions

A company with a competitive advantage drives a wider wedge between the willingness to pay (WTP) it generates and the costs it incurs than competitors achieve. The Essential Reading section explains that, mathematically, there are only three ways to attain such a wider wedge: by stripping out costs without sacrificing commensurate WTP among target customers (a low-cost strategy), by boosting WTP among target customers without incurring offsetting costs (a differentiation strategy), or sometimes by raising WTP and reducing costs at the same time (a dual advantage).

This simple math masks the fact that, for most products or services, many attributes influence customers' choices. In choosing among grocery stores, for instance, customers might consider attributes as diverse as the average price point in each store, the variety of merchandise in the store (can I get everything I need in one stop?), the variety of goods within each category, the freshness of produce, the speed of checkout, the friendliness of the employees, the proximity of the store to home or work, the ease of parking, the availability of items beyond groceries, the prevalence of discounts, and so on.

With so many attributes to compete on, and so many customer segments to compete for, it is little surprise that diverse strategies can arise within an industry. The grocery industry, for instance, is home not only to the low-cost strategies of companies like Walmart and Aldi, but also to diverse differentiation strategies: Whole Foods distinguishes itself by offering the freshest organic produce and excellent service; Trader Joe's stands out by stocking novel, easy-to-prepare items at bargain prices; some small markets thrive in urban locations by providing convenient access to a limited range of items; and so on.

The leaders of any firm must decide what ***value proposition*** the company will make to customers. That is, what mix of desired attributes will the company offer in the marketplace? The chosen mix influences many of the factors discussed in the Essential Reading section, including the activities the company must perform well, the costs it incurs, and the WTP it generates. When debating and setting their value propositions, many management teams find a simple diagram like **Exhibit 5** to be very helpful. Down the vertical axis, executives list the attributes that customers want in a product or service. For each attribute,

[e] The Supplemental Reading section was written by Jan W. Rivkin.

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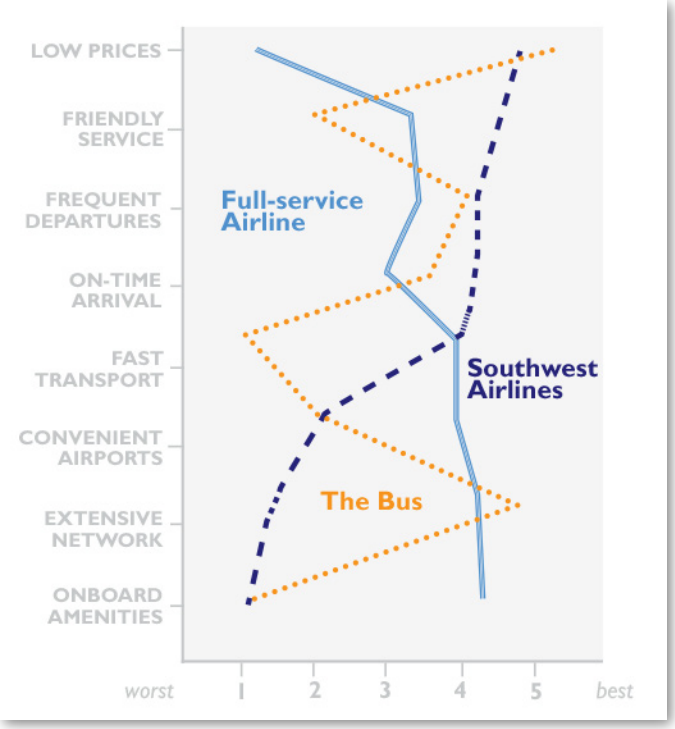
the horizontal axis records a rating on that attribute for the company and each of its competitors. The line corresponding to each rival summarizes that company's value proposition. Market research is often helpful to guide managers both in choosing the attributes and in assigning ratings to rivals.

Exhibit 5 shows a value proposition diagram for the US airline industry in the late 1990s and early 2000s, back when full-service airlines actually offered full service.

EXHIBIT 5 Value Propositions in the US Airline Industry



Let's consider a value proposition analysis for Southwest Airlines, the pioneer among no-frills airlines in the United States. Southwest's value proposition was to offer travelers low-fare, frequent flights with friendly, on-time service between secondary airports. Conventional full-service airlines such as American and United ran more extensive networks than Southwest, served more convenient primary airports, and offered greater amenities. But they did not match Southwest's prices, friendliness, departure frequency, or on-time record. A second relevant competitor for Southwest was bus service. Buses offered even lower prices than Southwest and a more extensive route network, including areas outside of large transportation hubs, but they couldn't beat Southwest on other attributes.

Note how the "low prices" attribute is arrayed in Exhibit 5. A high rating on that attribute corresponds to a very low price. In value proposition diagrams, attributes are assessed and presented so that a higher rating means that the customer is more satisfied.

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The Link Between Value Proposition and Competitive Advantage

Technically, there is no single, simple relationship between a company's placement in a value proposition diagram, such as the one in Exhibit 5, and the presence or absence of a competitive advantage for the company. A company can be superior on all attributes in a value proposition diagram but still have no competitive advantage if its relative cost position is poor. Conversely, a company with dual advantage can stand out on all attributes and still have a cost position that sustains its advantage.

In theory, a company can stand out on nothing—be equal to all competitors on all attributes and therefore command the same WTP as rivals—but have a competitive advantage because its unique activities give it a relative cost advantage. In practice, however, almost all companies with competitive advantage are superior on some attributes that customers desire and are inferior on others.

The attributes in a value proposition diagram can be ordered in different ways. One approach, taken in Exhibit 5, is to start with the strongest attribute of the focal firm, Southwest Airlines, and proceed to the firm's worst attribute. Such an ordering shows clearly what the company stands for in the eyes of the customer. Another approach is to start with the attribute that customers consider the most important and then proceed to the least important attribute. Exhibit 4 takes that approach for the snack cake example. When attributes are ordered by importance, it becomes clear which firms are thriving: the ones that are winning on the crucial attributes, for example, as Betsy Baking is in the snack cake market.

Many markets have distinct customer segments that value different attributes. In the airline industry, for instance, leisure travelers put special weight on low prices. Business travelers prefer airlines that offer an extensive network of destinations, frequent departures, convenient airports, and onboard amenities, while prices may matter less to them if their travel expenses are reimbursed. In value proposition diagrams, executives can order attributes by importance *by segment*. Doing so in the airline industry shows that Southwest has a compelling proposition for leisure travelers, while full-service airlines are relatively well configured for business travelers.

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Management teams typically use value proposition diagrams in three ways:

- The first use is to **take stock of the company's current value proposition**. A company is in trouble if it does not stand out from rivals on at least one attribute that matters to customers, as the plight of Collins Kitchen in Exhibit 4 shows.

  It is also a danger sign, however, if the value proposition diagram shows the company to be superior on all attributes. Typically that situation arises because a management team has been too generous in assessing its own performance; executives think their firm is the best on all fronts, but customers do not necessarily agree.

  Rare is the company that can excel on all attributes. Far more common among companies with competitive advantage is a value proposition picture like that of Southwest Airlines in Exhibit 5 or Betsy Baking in Exhibit 4. The company is consciously and confidently poor on some attributes so that it can stand out on the dimensions that its target customers truly value. This pattern raises an important question for every management team: On what attributes is the company intentionally inferior—poor not because of incompetence but by choice? (See "The Link Between Value Proposition and Competitive Advantage," above.)

- Management teams also use value proposition diagrams to **adjust the mix of attributes that their companies deliver**. In the airline industry in the 2000s, for instance, many full-service airlines realized that their onboard amenities did not generate much WTP among customers. Accordingly, they cut out amenities such as onboard meals and free drinks in coach-class cabins, and they reduced their prices on coach-class tickets. At the same time, Southwest realized that owners and employees of small businesses with limited travel budgets really liked some aspects of the company's value proposition. Such customers found the company's combination of frequent departures, strong on-time performance, and low prices to be compelling. Subsequently, Southwest introduced a limited range of offerings specifically for business travelers. For instance, a higher "business select" fare entitled a customer to priority boarding, service at a special check-in counter, and a premium drink onboard the flight.

- Executives can also use value proposition diagrams to **search for appealing, altogether new mixes of attributes**. Variants of value proposition diagrams have been prevalent among management consultants at least since the 1980s. In the mid-2000s, however, INSEAD Professors W. Chan Kim and Renée Mauborgne breathed new life into the tool. Their book *Blue Ocean Strategy* used a version of the value proposition diagram, which they dubbed a strategy canvas, to examine how companies can—in the words of the book's subtitle—"create uncontested market space and make the competition irrelevant."[50] In brief, Kim and Mauborgne described how management teams could craft novel value propositions by reducing performance on certain attributes, raising performance on others, eliminating some attributes from

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customer consideration, and creating attributes that the industry had never addressed before.

In the US airline industry, air services such as Linear Air and Uber-like apps like Jettly are pioneering relatively inexpensive private flights that are priced on a per-flight basis (versus outright ownership of a private plane) and are scheduled at the customer's convenience. In doing so, these companies aim to create an altogether new value proposition in air travel. For instance, on-demand flights eliminate "extensive network" as a consideration for customers because they allow passengers to fly from any regional airport to any other regional airport. They also create a new attribute, "scheduling flexibility," that conventional airlines simply can't provide.

In sum, management teams that aim to create a competitive advantage often find value proposition diagrams to be simple, powerful, and flexible tools to think through what their companies offer to customers and how they stand out in the marketplace.

4 KEY TERMS

added value For a participant or a firm, the value created by all participants in a transaction minus the value remaining when the participant or firm in question is eliminated.

cost drivers Any factors that change the cost of performing an activity.

differentiation strategy A strategy based on offering products or services that are superior in quality, reliability, or prestige to those of competitors and thus command a higher price.

dual competitive advantage A strategy based on providing a superior product while achieving a lower cost than the competition.

horizontal differentiation A condition arising in a market in which different consumers prefer different goods—that is, no good is acknowledged by all consumers as the best.

low-cost strategy A strategy based on the ability of a firm to provide a product or service at a lower cost than its competition.

mass customization The approach of using information and production

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technologies to tailor products to individual customers while still serving a wide variety of customers.

supplier opportunity cost (SOC) The minimal amount a supplier is willing to accept for the efforts and resources required to produce a product or service.

unrestricted bargaining The assumption that participants or firms are free and able to form coalitions with all other firms or participants without limitations.

value chain An analytical tool that catalogs the distinctive activities of a firm, in all functions.

value proposition A statement which conveys why a buyer should buy a company's product or service.

vertical differentiation A condition arising in a market in which goods differ only in quality and, while all consumers prefer goods of higher quality, buyers differ in their willingness to pay for quality.

willingness to pay (WTP) The maximum amount a customer is willing to pay in order to obtain a good or service.

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1 The Introduction and Essential Reading sections of this reading are adapted from Pankaj Ghemawat and Jan W. Rivkin, "Creating Competitive Advantage," HBS No. 798–062 (Boston: Harvard Business School, 1998). Copyright © 1998 by the President and Fellows of Harvard College. Reprinted by permission.

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[31] See Pankaj Ghemawat, *Commitment: The Dynamic of Strategy* (New York: Free Press, 1991), chapter 4, for a more extensive list of general guidelines.

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7 INDEX

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