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# Competitive Advantage

A strategy is an integrated set of choices that positions a firm in its industry so as to create and capture superior value over the long run. The “superior value” part of that definition reflects an important reality: some companies are far more profitable than others. For example, 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.[1] 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 growing 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 to get even a slightly better price. Many pharmaceuticals are made from commodities with little labor input, while suppliers such as unions and aircraft makers 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.

**Figure 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. **Figure 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.

Lilly, however, is not a typical pharmaceutical company, nor is Air Canada a typical airline. As **Figure 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 **Figure 3** tend to be larger than differences across industries.[2] Industry-level effects appear to account for 5% to 15% of the variation in profitability across companies, while stable within-industry effects account for 30% to 45% of the variation. (Most of the remainder can be assigned to effects that fluctuate from year to year.)

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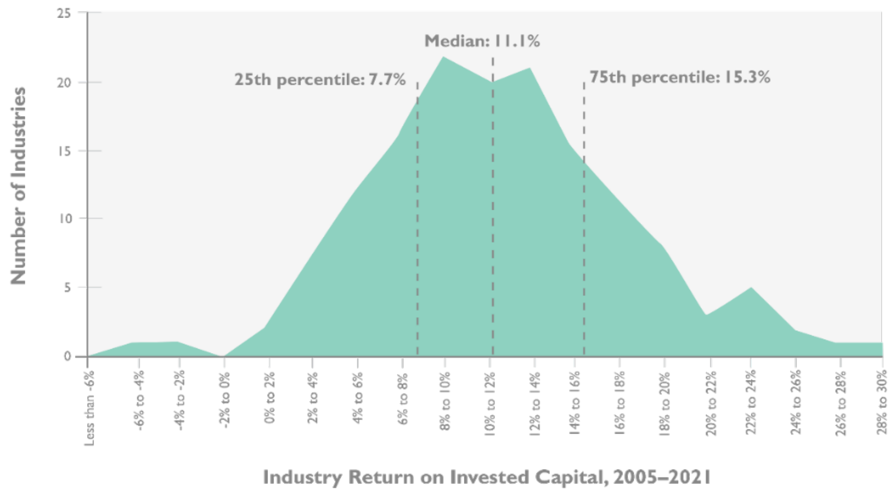
Professor Jan W. Rivkin prepared this note as the basis for class discussion. The note draws from earlier notes: Pankaj Ghemawat and Jan W. Rivkin, “Creating Competitive Advantage,” HBS No. 798–062 (Boston: Harvard Business School, 1998) and Pankaj Ghemawat and Jan W. Rivkin, "Core Curriculum: Competitive Advantage," HBS No. 8105 (Boston: Harvard Business School, 2022).

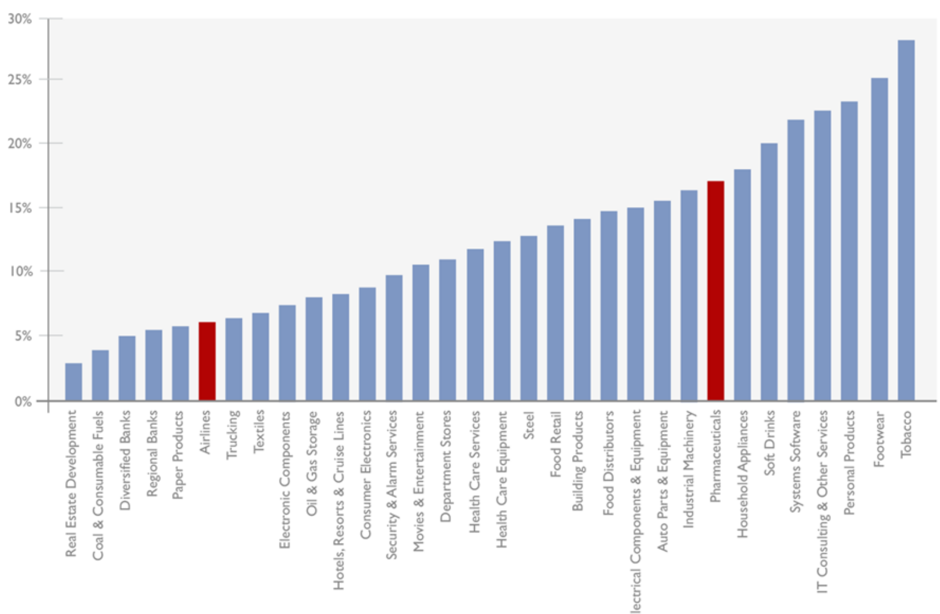
**Figure 1** Distribution of Industry Return on Invested Capital (ROIC)




Source: Compustat, author's calculations.

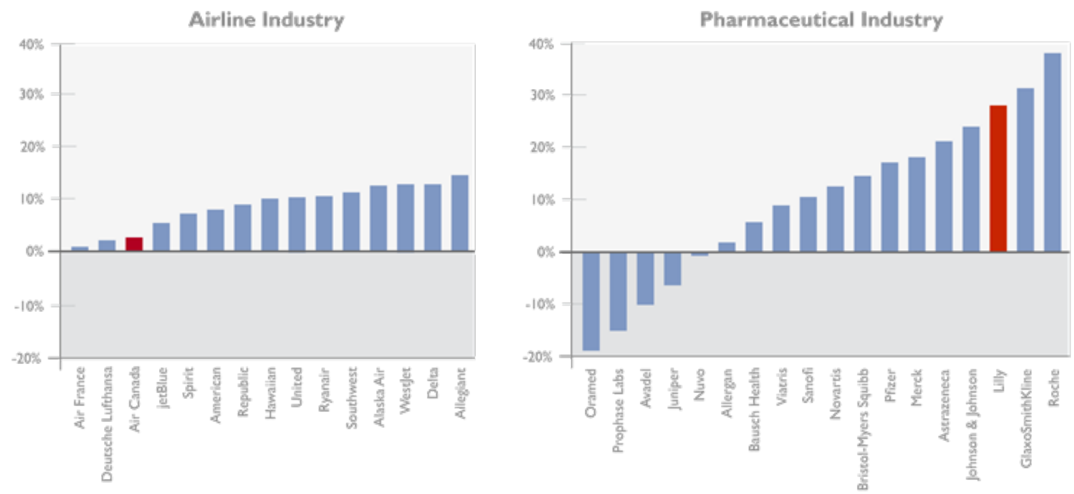
Note: Note: ROIC is calculated as earnings before interest and taxes divided by the sum of long-term debt, total equity, and minority interest.

**Figure 2** ROIC of Selected Industries




Source: Compustat, author's calculations.

**Figure 3** ROIC of Selected Airlines and Pharmaceutical Companies, 2005-2021




Source: Compustat, author's calculations.

Strategists need a systematic way to understand and analyze these large within-industry differences in performance. Toward that end, this note 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.[3] A firm with a competitive advantage is positioned to earn superior profits within its industry.

In examining the logic of how firms create competitive advantage, this note 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. The first section of this note makes this point more precisely by developing the concept of **added value**.[4] Second, certain patterns recur among companies with competitive advantage: they achieve the wider wedge mentioned before; they do so by making reinforcing choices across the full range of functions; those choices result in a distinctive value proposition; and these companies do a good job of dealing with the competitive forces in their industries. The second section of this note explores these four patterns.

## The Logic of Value Creation and Capture

A firm with a competitive advantage is one that has added value. To illustrate this concept, which was developed by Adam Brandenburger, Barry Nalebuff, and Harborne Stuart,[5] consider the portal crane business of Harnischfeger Industries.[6]

Harnischfeger, based in Milwaukee, Wisconsin, manufactured equipment for industrial customers. 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 of a portal crane 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?

### *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** 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.

The concept of **supplier opportunity cost** 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. 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 shrewder during negotiations, the price will edge toward $2.5 million.

The total value created by a transaction is the difference between the customer's willingness to pay and the supplier's opportunity cost. For instance, the sale of a crane to International Paper creates 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.

### *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. 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 to its core product some new services that Kranco doesn't match. The services boost the willingness to pay of International Paper to $9.0 million, but because 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.

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. The greater is a firm's added value, the greater is its potential for profit. The notion of added value highlights the fact that profit potential 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.

### *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, supplier 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 note, we will focus on the analysis of actual costs. We will 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 willingness to pay and actual costs. The relevant cost in this context is the average total cost incurred by a company and its rivals to complete a transaction with a customer. The relevant transaction is the item or experience that a company competes to sell to its customer—for example, a car in the competition between Ford and Tesla or a night's stay in the battle between Marriott and Airbnb.

## Patterns among Advantaged Companies

Among companies that have a competitive advantage and outperform industry rivals, four patterns consistently recur.

### *A Wider Wedge*

First, companies with advantage manage to drive a wider wedge than rivals do between the willingness to pay they generate among customers and the costs they incur to serve those customers, for a meaningful set of customers. Indeed, this pattern is so important that it is the very definition of competitive advantage.

Widening the wedge between willingness to pay and cost 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.[7] Among U.S. 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.[8]

Mathematically, there are three ways that a firm can achieve a competitive advantage (**Figure 4**):[9]

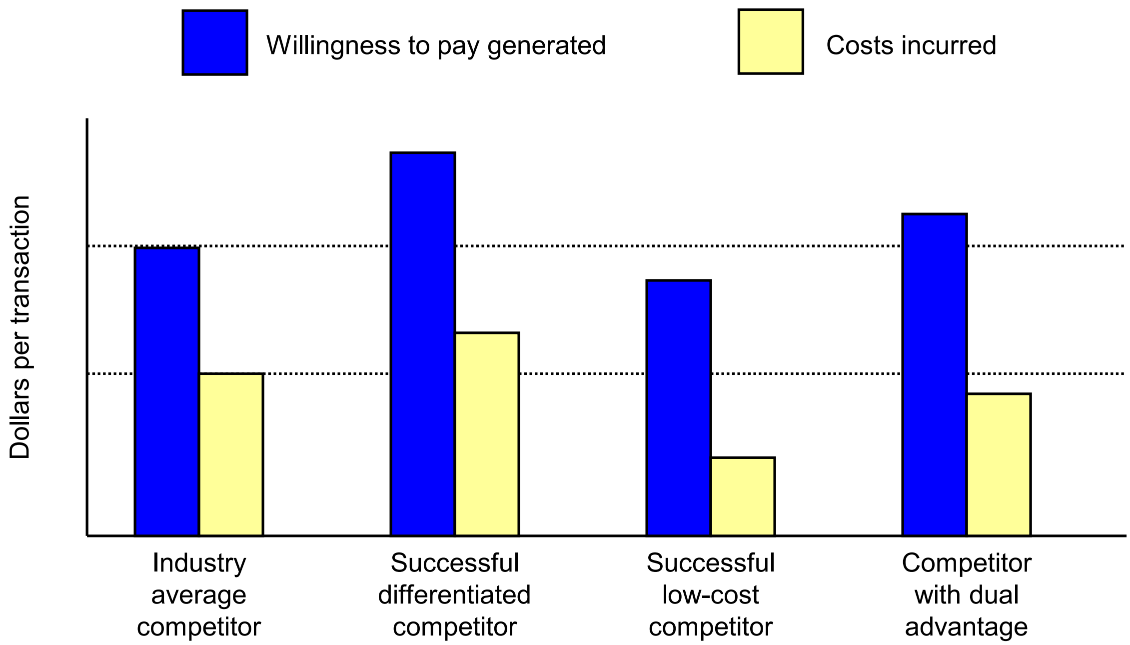
1. Devise a way to raise willingness to pay a great deal with only slight increases in costs. We call this a **differentiation strategy**.

2. Devise a way to reap large cost savings with only slight decreases in customer willingness to pay. This is a **low-cost strategy**.

3. Devise a way both to raise willingness to pay and to lower costs. This is a **dual-advantage strategy**.

On, a Swiss performance running shoe company, illustrates a differentiation strategy, one that has allowed the company to grow rapidly and succeed even as a newcomer in an established, brand-driven industry. For example, On creates value for consumers through innovative, performance-enhancing features—such as its cushioning technology and advanced midsole design—along with aesthetics. On has built its brand around this premium identity, largely through grassroots marketing and community-building among athletes. At the same time, the company's unique distribution strategy—which combines direct-to-consumer sales and sales to specialty retail stores with unusual, favorable contract terms—has allowed it to stand out in the industry. As a result, On incurs higher costs than rival performance shoemakers but commands prices high enough to earn superior margins.[10]

**Figure 4** Types of Competitive Advantage




Source: Michael E. Porter, *Competitive Strategy* (New York, NY: Free Press, 1980), Chapter 2.

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 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.[11]

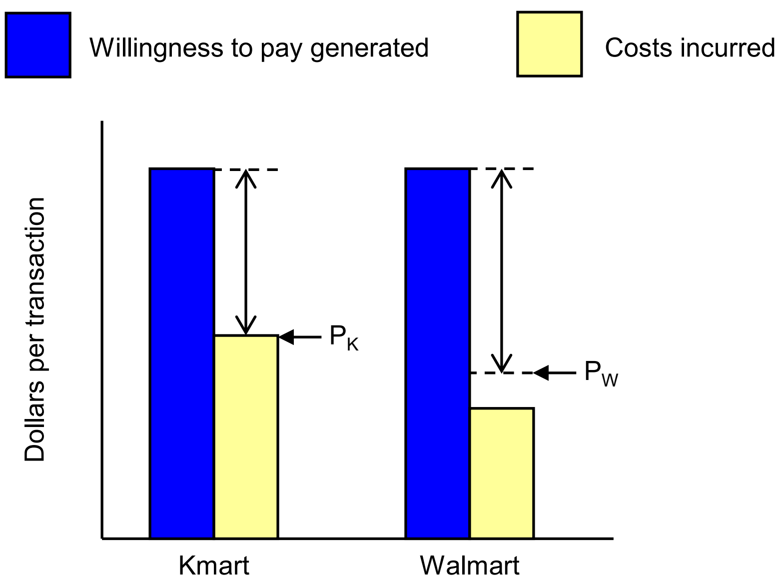
A low-cost strategy is exemplified by Walmart, the discount retailer. By negotiating hard with suppliers, helping suppliers reduce the costs of selling to Walmart, using data to buy only what is selling well, achieving logistics efficiency, selling in stores with no frills, offering very little in-store service, and taking other similar steps, Walmart has driven its costs on a broad selection of general merchandise and food 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 Walmart targets—price-sensitive consumers looking for a broad selection of goods in one store—the cost savings are greater than the loss in willingness to pay.[12]

The tension between willingness to pay and cost 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.[13] 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.[14]

Examples of companies that achieve dual advantage are noteworthy and well worth understanding.[15] Strategy scholars debate, however, how common dual advantages are. Some argue that they are rare and are typically based on operational practices across firms that are easily copied.[16] Others contend that breaking the tradeoffs between cost and willingness to pay—replacing tradeoffs with "trade-ons"—is a fundamental way to transform competition in an industry.[17]

A company with a wider wedge between willingness to pay and cost enjoys important competitive power. Consider, for instance, the competitive scenario between Walmart and Kmart illustrated in **Figure 5**. Suppose that the two companies provide products and retail experiences that generate equal willingness to pay among customers, but Walmart does so at a lower cost. Imagine that Kmart competes as hard as it can: it lowers its price to $P_K$, matching its costs. Because of its wider wedge, Walmart can set a price like $P_W$ that is higher than its costs but still gives customers a better deal than they can get at Kmart. (That is, the difference between what the customer is willing to pay and the price the customer must pay is larger at Walmart than at Kmart.) The ability to win over customers and make money, even when rivals are competing as hard as they can—that is the competitive power of the wider wedge.

**Figure 5** The Competitive Power of the Wider Wedge



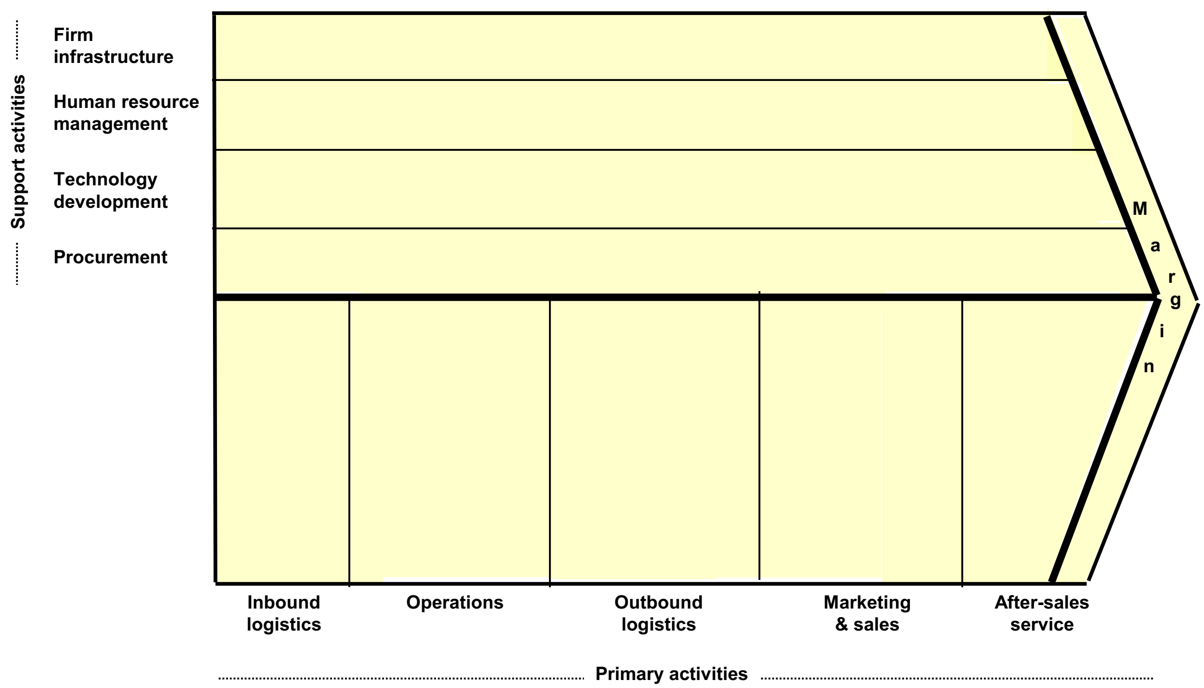

Source: Note author.

## *Reinforcing Activities*

The things that companies actually do—their activities—generate both willingness to pay and costs. Accordingly, a company with an advantage does things differently, or does different things, than the typical company in its industry. Moreover, it is rare to see a company establish its advantage by doing just one or a few things differently. Rather, advantaged companies typically undertake distinctive, reinforcing activities across many functions and departments. This is the second pattern we note among advantaged companies. It maps to the "integrated set of choices" part of our definition of strategy.

A convenient tool for keeping track of a company's distinctive activities is the **value chain** (**Figure 6**).[18] Every company undertakes some primary activities: it has a logistical system to bring inputs into its operations, where they are transformed into outputs, which are then delivered to customers by outbound logistics. It markets and sells outputs to customers and provides service after the sale. In addition, every company has supporting activities that make the primary activities possible: it procures inputs, develops technology, manages human resources, and provides financial and legal infrastructure. The value chain is a tool for cataloguing all of these activities.

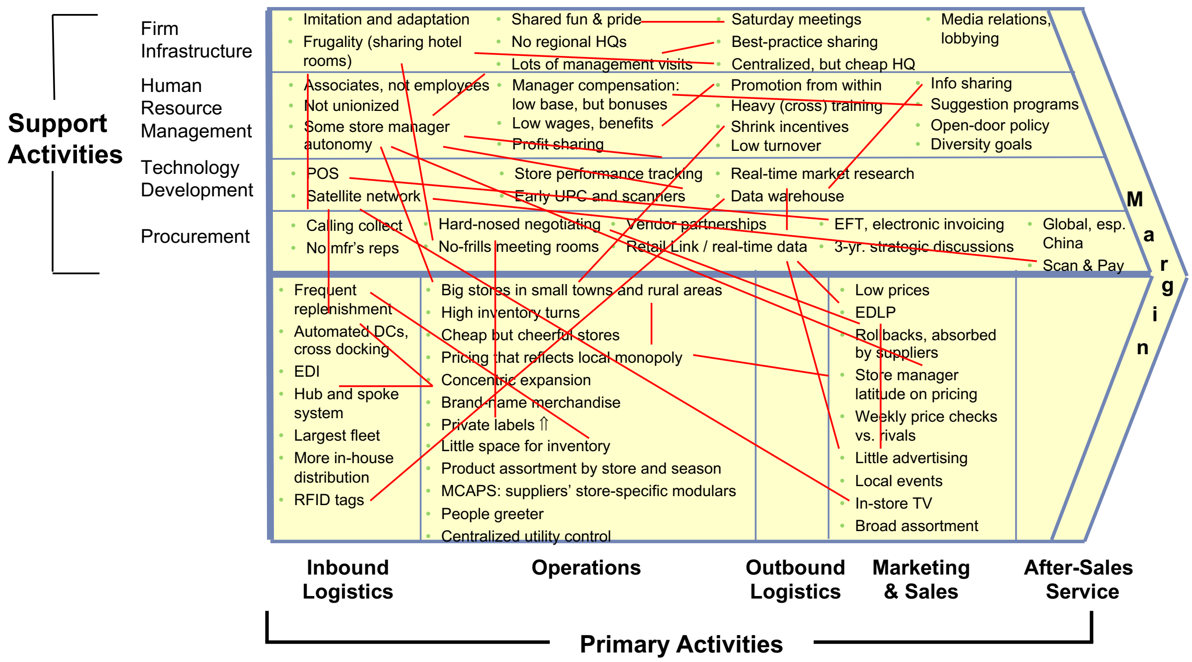
**Figure 6** Value Chain




Source: Michael E. Porter, *Competitive Advantage* (New York, NY: Free Press, 1985).

**Figure 7** shows the value chain filled in with the distinctive activities of Walmart. Walmart differs from other discount retailers in many choices—from its focus on rural locations and its everyday low pricing to its pattern of concentric expansion. Moreover, the distinctive activities reinforce one another (signified in the diagram by red lines). For example, Walmart's extensive use of point-of-sale data allows it to buy only what is selling well, which makes clearance sales less necessary, which enables everyday low pricing, reduces the need for advertising, and minimizes the labor needed to change prices on shelves.

**Figure 7** Value Chain of Walmart




Source: Note author.

Walmart's value chain is typical of a company with a competitive advantage. Distinctive activities show up everywhere, as do red lines signifying reinforcement. Such alignment is the hallmark of a strategy's internal consistency.

## *Distinctive Value Proposition*

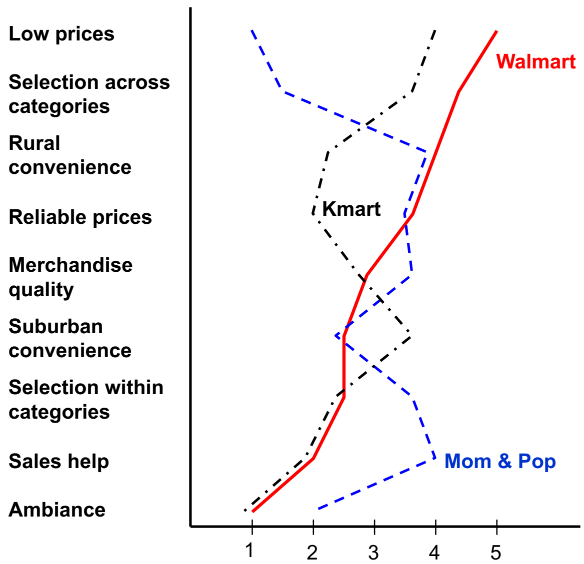
The reinforcing activities of an advantaged company typically result in the company offering something distinctive to customers. That is, the company delivers to customers a different bundle of attributes than competitors provide.

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 employees, the store's proximity 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 with so many customer segments to compete for, and with such different activities required to deliver on each attribute, it is little surprise that trying to deliver on all attributes—aiming to be "everything to everyone"—is typically a losing strategy. Rather, a strong pattern we see among companies with competitive advantage is this: they choose to deliver well on some attributes and not on others. In fact, they consciously and confidently underperform on some attributes in order to be outstanding on the attributes that their target customers value the most. In this way, they differ from rivals and stand for something special in the eyes of their customers. In the words of our definition of strategy, they are "positioned" uniquely. We refer to the special mix of attributes offered by an advantaged company as a distinctive value proposition.

The **value map** is a convenient tool for expressing and exploring a company's value proposition. **Figure 8** shows the value map for Walmart versus Kmart and a "Mom & Pop" retailer in a small town. Down the vertical axis are the attributes that customers want when buying general merchandise and food. For each attribute and each company, the horizontal axis records a rating on that attribute. The line corresponding to each rival summarizes that company's value proposition. Walmart stands out on low prices and selection across categories. It purposely underperforms on sales help and store ambiance. The company's representation on the value map is typical of what we see among advantaged companies: strong on attributes valued by their target customers, weak on other attributes, and different from rivals.

**Figure 8** Value Map for Walmart, Kmart, and Mom & Pop Retailer




Source: Note author.

The value map in **Figure 8** clarifies why diverse strategies can arise within an industry. A good Mom & Pop retailer is disadvantaged with respect to the price-sensitive customers whom Walmart targets. But among customers looking for sales help and store ambiance, the Mom & Pop retailer may have a competitive advantage. Its costs are higher than Walmart's, but the willingness to pay it enjoys among those customers is higher than Walmart's. This example highlights a general point: competitive advantage should be analyzed with respect to a specific product and a particular customer segment. Within an industry, it is quite common for different companies to be advantaged with respect to different products and segments.

Take, for instance, the grocery industry, which we mentioned above. Thanks to the variety of attributes valued by customers and the variety of segments that place different weight on different attributes, the grocery industry 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-toprepare items at bargain prices; some small markets thrive in urban locations by providing convenient access to a limited range of items; and so on.

### *Effective Response to Competitive Forces*

A fourth and final pattern we see among advantaged companies is that they do a good job—indeed, a better job than competitors—at coping with the competitive forces in their industries. This pattern maps to the "in an industry" part of our definition of strategy.

The **Five Forces framework** provides a convenient tool for detecting whether a particular company displays this pattern.[19] The framework highlights the forces that can drive profits out of an industry. A company that outperforms its industry rivals has typically found a better way to deal with those forces. Some advantaged companies do this by serving a segment that is less exposed to the forces—for instance, segments that are served by few other companies, that have high entry barriers, that find substitutes unattractive, or that have high customer loyalty. Other advantaged companies configure themselves to neutralize the forces. For example, they may build customer switching costs and barriers to entry, find alternative sources of supply, offer attributes not available from substitutes, or lock in customers by serving them uniquely well.

Return, for instance, to the example of Walmart. Rivalry in discount retailing is typified by intense price competition, but Walmart has low costs that allow it to win price wars. Entrants might come into the discount retailing industry, but they are unlikely and unwise to enter small towns with Walmarts because they can't compete profitably with Walmart's rock-bottom prices. Brand-name suppliers have power over many discount retailers, but Walmart's scale, data, and negotiating prowess neutralize the power of most suppliers. Customers in rural towns have few alternatives to Walmart. And Walmart has entered the markets for substitutes like e-commerce and warehouse clubs. Such a match between a company's strategy and industry conditions is the essence of external consistency.

## Summary

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

- A successful firm does not simply participate in an attractive industry. It also strives to earn greater profits than the typical firm in its industry.
- The ability to earn 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.
- Companies that outperform the rivals in their industries display four patterns:
    - They drive a wider wedge than competitors do between the willingness to pay they generate among their customers and the costs they incur to serve those customers. This wider wedge is the very definition of competitive advantage.
    - They achieve this wider wedge by means of reinforcing and distinctive activities throughout the company. The value chain can help us catalog such activities.
    - The activities of an advantaged company result in a distinctive value proposition, in which the company stands out on some attributes that customers desire and

intentionally underperforms on other attributes. The value map is a useful tool for charting a company's value proposition.

- An advantaged company does a better job than its rivals at coping with the competitive forces in its industry. The Five Forces framework can help us test whether a company is doing this.

## Endnotes

[1] Michael E. Porter, *Competitive Strategy* (New York, NY: Free Press, 1980), Chapter 1.

[2] Richard P. Rumelt, "How Much Does Industry Matter?" *Strategic Management Journal* 12 no. 3 (March 1991): 167–185; Anita M. McGahan and Michael E. Porter, "How Much Does Industry Matter, Really?" *Strategic Management Journal* 18 (Summer 1997): 15–30; Anita M. McGahan, "The Performance of U.S. Corporations 1984-1994," *Journal of Industrial Economics* 47 No. 4 (December 1999); Ebes Esho and Grietjie Verhoef, "Variance Decomposition of Firm Performance: Past, Present and Future," *Management Research Review* 44 (2021): 867-888.

[3] For further discussion of the definition of competitive advantage, see Richard P. Rumelt, "What In The World Is Competitive Advantage?" UCLA Working Paper, 2003; Steve Postrel, "Competitive Advantage: A Synthesis," Southern Methodist University Working Paper, 2004.

[4] Adam M. Brandenburger and Barry J. Nalebuff, *Co-opetition* (New York: Doubleday, 1996); Adam M. Brandenburger and Harborne W. Stuart, "Value-Based Business Strategy," *Journal of Economics and Management Strategy* 5, no. 1 (1996): 5–24.

[5] This section is based on the work of Adam M. Brandenburger and Harborne W. Stuart, "Value-Based Business Strategy," *Journal of Economics and Management Strategy* 5, no. 1 (1996): 5–24; See also Michael E. Porter, *Competitive Strategy* (New York, NY: Free Press, 1980), Chapter 2, and Adam M. Brandenburger and Barry J. Nalebuff, *Co-opetition* (New York: Doubleday, 1996).

[6] Adam M. Brandenburger and Harborne W. Stuart, "Harnischfeger Industries: Portal Cranes," HBS No. 391–130 (Boston: Harvard Business School, 1996).

[7] This section draws heavily on ideas first developed in Michael E. Porter, *Competitive Advantage* (New York, NY: Free Press, 1985), especially Chapters 2–4.

[8] Suraj Srinivasan and Quinn Pitcher, "Whole Foods and JANA Partners," HBS No. 118–076 (Boston: Harvard Business School, 2018).

[9] Michael E. Porter, *Competitive Strategy* (New York, NY: Free Press, 1980), Chapter 2.

[10] Ramon Casadesus-Masanell, Karolin Frankenberger, and Sascha Mader, "On (A)," HBS No. 723-430 (Boston: Harvard Business School Publishing, 2025).

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

[12] Felix Oberholzer-Gee and Maria P. Roche, "Walmart USA—Searching for Growth," HBS No. 722-395 (Boston: Harvard Business School Publishing, 2022).

[13] Jordan Siegel and James Jinho Chang, "Samsung Electronics," HBS No. 705–508 (Boston: Harvard Business School, 2009).

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