CHAPTER

4

Internal Analysis: Resources, Capabilities, and Core Competencies

Chapter Outline

Learning Objectives

After studying this chapter, you should be able to:

LO 4-1 Explain how shifting from an external to internal analysis of a firm can reveal why and how internal firm differences are the root of competitive advantage.

LO 4-2 Differentiate among a firm's core competencies, resources, capabilities, and activities.

LO 4-3 Compare and contrast tangible and intangible resources.

LO 4-4 Evaluate the two critical assumptions about the nature of resources in the resource-based view.

LO 4-5 Apply the VRIO framework to assess the competitive implications of a firm's resources.

LO 4-6 Evaluate different conditions that allow a firm to sustain a competitive advantage.

LO 4-7 Outline how dynamic capabilities can enable a firm to sustain a competitive advantage.

LO 4-8 Apply a value chain analysis to understand which of the firm's activities in the process of transforming inputs into outputs generate differentiation and which drive costs.

LO 4-9 Identify competitive advantage as residing in a network of distinct activities.

LO 4-10 Conduct a SWOT analysis to generate insights from external and internal analysis and derive strategic implications.

CHAPTER CASE 4 Part I

Five Guys' Core Competency: "Make the Best Burger, Don't Worry about Cost"

JERRY MURRELL, the founder of Five Guys Burgers and Fries, grew up in northern Michigan. He attended a Catholic high school and did so poorly academically that one of the nuns told him, "If you don't study, you'll be flipping burgers."[1] Little did she know that this prophecy would become reality. Today, Five Guys claims the title of the fastest-growing restaurant chain in the United States, with some 1,500 locations worldwide and revenues of $2 billion. And Jerry Murrell's personal net worth is hundreds of millions of dollars. How did this come about?

In the 1980s, while looking for entrepreneurial opportunities in the Washington, D.C., area, Jerry Murrell was selling insurance. During his leisure time, he and his family would often visit nearby Ocean City, Maryland, where the boardwalk was filled with fast food vendors—many of them selling fries—but only one always had a long line in front of it: Thrashers. One day while reading the text on the potato bags, Murrell noticed the potatoes came from Rick Miles in Rigby, Idaho. The Thrashers encounter brought back memories of Push 'Em Up Tony, a hamburger stand in Murrell's Michigan hometown. Although it offered only hamburgers, people from all over town would drive to Tony's for burgers. Murrell has always loved burgers and fries, so, while observing Thrashers in action and recalling good times at Push 'Em Up Tony, he came up with an idea: Open a stand that offers only hamburgers *and* fries. Keep it simple—this might work.

Murrell excitedly shared his idea with his wife, Janie, but she was not impressed and told him he'd be better off keeping his day job. Her reaction left him undeterred. He went on to seek funding from banks for his new venture, but they all thought he was crazy for wanting to go up against such multinational fast food giants as McDonald's and Burger King. Still determined and with one last option to explore, Murrell asked his two older sons, who were both in high school at the time, whether they wanted to go to college. Both boys said they'd rather do something else. With that, Murrell took their college fund and used it to open the first Five Guys store in Arlington, Virginia, in 1986.

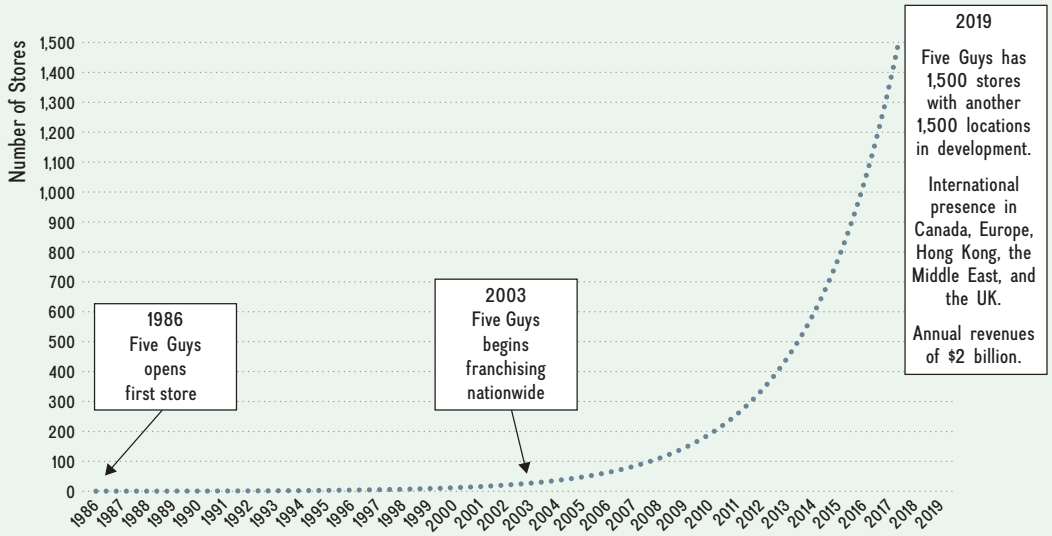
Murrell named the hamburger joint after himself and his four sons at the time (a fifth son would arrive later). From the get-go, they opted not to put a lot of money into the business, to find a place out of the way where the rent was low, and to focus on making the best burgers and fries. They reasoned that if people started buying their product and *kept* buying it, then they would know that their burgers and fries were good. They also decided not to spend any money on marketing, figuring that their customers would be their best salespeople. To their surprise, their little hole-in-the-wall offering takeout-only burgers and fries became instantly popular and profitable.

For the next few years, Five Guys focused on the nuts and bolts of the hamburger business. They obsessed about every detail: store layout and design, the quality of the buns and never-frozen beef, how to fry the potatoes and from where they should be sourced (they eventually settled on Rick Miles in Idaho, the Thrashers supplier). Murrell even had his sons conduct a blind taste test of 16 varieties of mayonnaise to find the perfect one. The winner was the most expensive brand, which was supplied by only one vendor who was notorious for being difficult to deal with, but they went with it, taking to heart their father's instructions: "Make the best burger. Don't worry about cost."

Five Guys burgers are made to order and can be customized with 15 fresh toppings, including grilled mushrooms, green peppers, and jalapenos, all of which can be added at no extra charge. The focus on making the best burgers and fries has resulted in a higher cost structure than that of the fast-casual restaurant segment, which includes Shake Shack and Smashburger. Additionally, Five Guys prices are based on actual ingredient costs plus margin; therefore, the prices are not only several times more than what you would pay for a fast food burger, but they also fluctuate based on the cost of inputs. Not once, however, did the Murrells worry about jeopardizing the quality of their product to keep prices low or even consistent—not even when, in 2005, a hurricane destroyed most of the tomato crop in Florida, causing prices for this ingredient to increase almost threefold.

It took the Murrells 17 years to perfect their recipe for success. During that time, they had only five stores in the Washington, D.C., area, all owned and operated by the family. Despite Jerry Murrell's strong opposition, his boys convinced him to start franchising. He was partly persuaded to

EXHIBIT 4.1 Five Guys' Growth in Number of Stores, 1986–2019



Source: Author's depiction of publicly available data (fitted trend line).

do so after reading *Franchising for Dummies* by Wendy's founder Dave Thomas.

As Exhibit 4.1 shows, by 2003, Five Guys was ready for prime time. Within just 18 months, all regional franchises in the United States were sold out. By 2010, Five Guys started moving beyond the United States, first to Canada and then to the United Kingdom in 2013. During 2015–2018, Five Guys' international expansion picked up speed with store openings in France, Ireland, Kuwait, United Arab Emirates, Saudi Arabia, and Spain. Within the next five years, Five Guys is planning to expand into 20 more countries.

While Jerry and Janie Murrell are now retired, their five sons and now also their grandchildren are involved in leadership positions in the company. Despite now being a global, multibillion-dollar enterprise, Five Guys is still owned and operated by the Murrell family. And the nun who taught Jerry in high school was right: He ended up flipping burgers for the rest of his life.[2]

Part II of this ChapterCase appears in Section 4.6.

ONE OF THE KEY messages of this chapter is that a firm's ability to gain and sustain competitive advantage is partly driven by *core competencies*—unique strengths that are embedded deep within a firm. Core competencies allow a firm to differentiate its products and services from those of its rivals, creating higher value for the customer or offering products and services of comparable value at lower cost.

How was Five Guys so successful in a highly competitive industry dominated by fast food giants like McDonald's and Burger King, as well as direct competitors claiming to be "better burger" joints such as Smashburger, BurgerFi, and Shake Shack? By some estimates, Five Guys captured 50 percent of the market share in the "better burger" segment in the 2010s.[3] How did Five Guys achieve a cult-like following despite having higher menu prices and longer wait times? In short, how did Five Guys gain and sustain a competitive advantage in this highly competitive industry? The answer to all these questions is found in Five Guys' core competency: delivering a customized, made-to-order burger and hand-cut fries using only the highest-quality ingredients available.

To gain a better understanding of why and how differences *within* firms are at the root of competitive advantage, we begin this chapter by shifting the focus from an outward-looking external analysis to an inward-looking internal analysis of the firm. Next, we closely examine a firm's *core competencies.* We then introduce the *resource-based view* of the firm to provide an analytical model that allows us to assess resources, capabilities, and competencies and their potential for creating a sustainable competitive advantage. Subsequently, we discuss the *dynamic capabilities perspective,* a model that emphasizes a firm's ability to modify and leverage its resource base to gain and sustain a competitive advantage in a constantly changing environment. We then turn our attention to the *value chain analysis* to gain a deeper understanding of the internal activities a firm engages in when transforming inputs into outputs. Next, we take a closer look at *strategic activity systems.* Here, a firm's competitive advantages resides in a network of interconnected and reinforcing activities. We conclude with *Implications for Strategic Leaders,* with a particular focus on how to use a *SWOT analysis* to obtain strategic insights from combining external with internal analysis.

4.1 From External to Internal Analysis

LO 4-1

Explain how shifting from an external to internal analysis of a firm can reveal why and how internal firm differences are the root of competitive advantage.

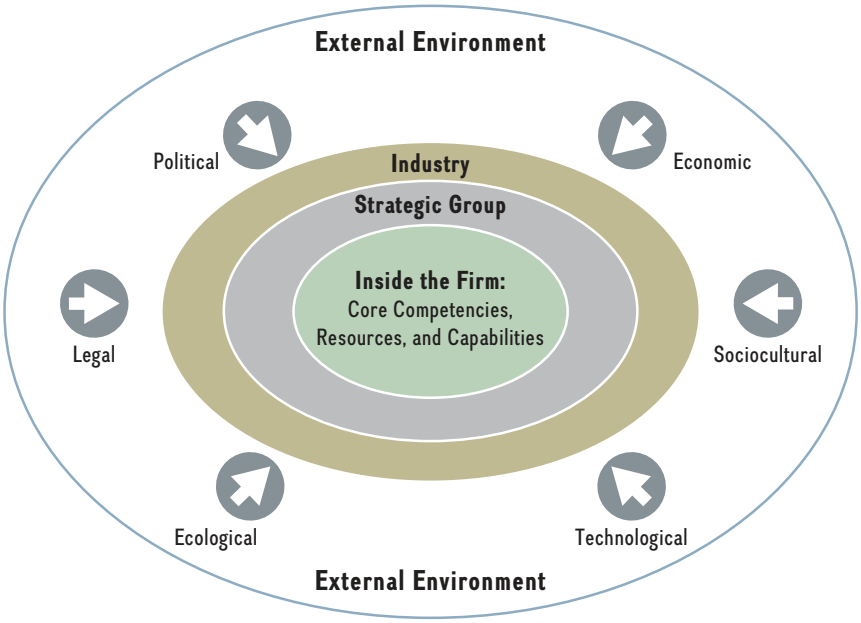
In this chapter, we study analytical tools to explain why differences in firm performance exist even within the *same* industry. For example, why does Five Guys outperform McDonald's, Burger King, In-N-Out Burger, Smashburger, and others in the (hamburger) restaurant industry? Since these companies compete in the same industry and face similar external opportunities and threats, the source for some of the observable performance difference must be found *inside the firm.* In Chapter 3, when discussing industry, firm, and other effects in the context of superior performance, we noted that up to 55 percent of the overall performance differences is explained by firm-specific effects (see Exhibit 3.2). Therefore, looking *inside* the firm to analyze its resources, capabilities, and core competencies allows us to understand the firm's strengths and weaknesses. Linking these insights from a firm's internal analysis to the ones from an external analysis allows managers to determine their strategic options. Ideally, strategic leaders want to leverage their firms' internal strengths to exploit external opportunities, and to mitigate internal weaknesses and external threats.

Exhibit 4.2 depicts how and why we move from the firm's external environment to its internal environment. To formulate and implement a strategy that enhances the firm's chances of gaining and sustaining competitive advantage, the firm must have certain types of resources and capabilities that combine to form core competencies. The best firms conscientiously identify their core competencies, resources, and capabilities to survive and succeed. Firms then determine how to manage and develop internal strengths to respond to the challenges and opportunities in their external environment. In particular, firms conduct the evaluation and development of internal strengths in the context of external PESTEL forces and competition within its industry through application of the five forces model and the strategic group map (see Chapter 3).

The firm's response must be dynamic. Rather than creating a onetime and thus a static fit, the firm's internal strengths need to change with its external environment in a *dynamic* fashion. At each point the goal should be to develop resources, capabilities, and competencies that create a *strategic fit* with the firm's environment. The forward motion and overall

EXHIBIT 4.2

Inside the Firm: Competitive Advantage based on Core Competencies, Resources, and Capabilities



trends of those environmental forces must also be considered. The rest of this chapter will provide a deeper understanding of the *sources* of competitive advantage that reside within a firm.

LO 4-2

Differentiate among a firm's core competencies, resources, capabilities, and activities.

4.2 Core Competencies

Products and services make up the *visible* side of competition. But residing deep within the firm lies a diverse set of *invisible* elements around which companies also compete; these are the core competencies. **Core competencies** are unique strengths embedded deep within a firm (see Exhibit 4.2). Core competencies allow a firm to differentiate its products and services from those of its rivals, creating higher value for the customer or offering products and services of comparable value at lower cost. Core competencies find their expression in the structures, processes, and routines that strategic leaders put in place. The important point here is that competitive advantage is frequently the result of a firm's core competencies.[4]

core competencies
Unique strengths, embedded deep within a firm, that are critical to gaining and sustaining competitive advantage.

Take Five Guys, featured in the ChapterCase, as an example of a company with a clearly defined core competency: A superior ability to deliver fresh, customized hamburgers as well as hand-cut fries using only the highest quality ingredients. By doing things differently than rivals, Five Guys was able to build and hone its core competency over a long period. Strategy is as much about deciding to do things *differently* from rivals, as it is about deciding *not* to do certain things at all. From the start, Five Guys was clear and consistent about what it would do and what it would *not* do.

What did Five Guys decide to do? Five Guys sources only the highest quality ingredients, including fresh, never frozen ground beef for its burgers; freshly baked buns from local

bakeries; potatoes from Idaho; tomatoes from Florida; and so forth. Five Guys further differentiates itself from its competitors by offering a wide range of free toppings from classics like ketchup and lettuce to specialties like grilled mushrooms, jalapenos, and green peppers. Some of Five Guys' ingredients cost four times the amount that other chains pay. Its fries are hand-cut from potatoes grown in Idaho north of the 42nd parallel and cooked in pure peanut oil. Five Guys keeps its store designs simple, functional, and consistent: Its iconic red and white tiles are often seen in shopping malls, where many of its stores are located.

What did Five Guys decide NOT to do? It would *not,* for instance, bloat its menu and offer up to 125 items, as McDonald's did over the years. Instead, it kept its menu simple: burgers, fries, and hot dogs. This simplicity allowed each Five Guys team to deliver on its core competency: custom, made-to-order, high-quality burgers for each of its patrons. In fact, it took Five Guys almost *30* years before deciding to add milkshakes to its menu. This new and popular item is available with free mix-in flavors such classic chocolate, vanilla, strawberry, and Oreo, as well as flavors unique to Five Guys such as bacon.

Five Guys does *not* have drive-throughs. Because its food, unlike fast food, is made to order, drive-through wait times would be too long. It does *not* offer food delivery, regardless of who asks for it—not even when an admiral from the Pentagon requested a special lunch delivery for 25 people. Jerry Murrell declined politely. The next day Five Guys hung up a 22-foot-long banner that read "ABSOLUTELY NO DELIVERY." Business from the Pentagon picked up after that. Even former President Barack Obama has been seen waiting in line. As part of its heritage as a takeout only place, Five Guys does not encourage its patrons to linger; for instance, it does *not* offer free WiFi and while the seating is functional, it isn't really that comfortable. Five Guys' focus is to get the customer in and out in an expedient and efficient manner to increase throughput especially during peak lunch hours.

Five Guys also does *not* spend any money on marketing. Murrell believes that happy customers are the best salespeople for the company as they will share their experience with their friends. This word-of-mouth publicity is even more potent now with the prevalence of social media. Over the years local press has provided free publicity as well, showering Five Guys with hundreds of glowing reviews. Many of these reviews can be found framed and hanging on the bathroom walls of its stores. Much of its early fame can also be attributed to Zagat, one of the most important restaurant guides in the United States.

These multiple and varied activities, when combined, reinforce Five Guys' core competency, which enables the hamburger joint to differentiate its product offerings, to create higher perceived value for its customers, and to command premium prices for its products. It is important to note that before expanding geographically, the Murrells spent nearly two decades within just their five northern Virginia stores perfecting the core competency. The initial stores were staffed and operated by family members. But once they started to franchise, Five Guys needed to maintain delivery of the core competency—this time to multiple stores across the United States. Five Guys was able to replicate its unique structure, processes, and routines, including its diverse set of strategic activities, which included a supply chain that sourced only fresh, quality ingredients. Considering that core competencies and their underlying knowledge often do not travel easily across geographic distances, this was no small feat.[5]

Thus, as much as competition is about products and services, it is also about developing, nurturing, honing, and leveraging core competencies. For a closer look of the core competency of Beats by Dr. Dre, see Strategy Highlight 4.1.

Strategy Highlight 4.1

Dr. Dre's Core Competency: Coolness Factor

In 2014, Andre Young—aka Dr. Dre—was celebrated as the first hip-hop billionaire after Apple acquired Beats Electronics for $3 billion. Dr. Dre has a long track record as a successful music producer, rapper, and entrepreneur. Known for his strong work ethic, he expects nothing less than perfection from the people he works with—similar to some of the personality attributes ascribed to the late Steve Jobs, co-founder and longtime CEO of Apple.

Although Dr. Dre created and subsequently sold several successful music record labels, as an entrepreneur, he is best known as co-founder of Beats Electronics with Jimmy Iovine, also an entrepreneur and record and film producer. Both are considered to be some of the best-connected businesspeople in the music industry, with personal networks spanning hundreds and comprising both famous and up-and-coming artists.

Founded in 2008, Beats Electronics is known globally for its premium consumer headphones, Beats by Dr. Dre, which Dr. Dre claims allows the listeners to hear all the music.[6] Since early 2014, the company has been offering Beats Music, a streaming music subscription service. With this product and service, Beats strives to "bring the energy, emotion, and excitement of playback in the recording studio to the listening experience and introduce an entirely new generation to the possibilities of premium sound entertainment."[7] However, many acoustics experts maintain that playback of digitally compressed MP3 audio files is inferior to high fidelity. Also, the sound quality of Beats headphones is considered poor compared to that of other premium-brand headphones such as Bose, JBL, Sennheiser, and others.

Why then would Apple pay $3 billion to acquire Beats Electronics—its largest acquisition to date? Two main reasons: First, Apple hopes that some of Beats' coolness will spill over to its brand, which has become somewhat stale. The iPhone, for example, is now a standardized commodity given successful imitations by Samsung, Huawei, and Xiaomi. Second, although Apple is the world's largest music vendor boasting 800 million iTunes accounts, the music industry is being disrupted. Content delivery of music and video is shifting from ownership via downloads to streaming on demand (renting). As a consequence, music downloads have declined in the past few years.

BEATS' COOLNESS FACTOR Beats by Dr. Dre achieved an unprecedented coolness factor with celebrity endorsements not only from music icons but also athletes, actors, and other stars. Before Beats, no musician endorsed audio headphones in the same way as a basketball player such as Michael Jordan endorsed his line of Nike shoes, Air Jordan. Dr. Dre was the first legendary music producer to endorse premium headphones. In addition, he created custom Beats for stars such as Justin Bieber, Lady Gaga, and Nicki Minaj. Other music celebrities including Skrillex, Lil Wayne, and will.i.am endorsed Beats by wearing them in their music videos and at live events and mentioning them on social media. But Beats did not stop at musicians. Famous athletes—basketball superstars LeBron James and Kobe Bryant, tennis champion Serena Williams, and soccer stars Cristiano Ronaldo and Neymar Jr.—wear Beats by Dr. Dre in public and endorse the brand in advertisements.

Dr. Dre, left, and Jimmy Iovine are co-founders of Beats. Following Apple's acquisition of Beats, Dre and Iovine continue to work together to keep Beats relevant and tied to current artists. In 2018, Iovine left his role at Apple with day-to-day decision authority to work as a consultant to Apple. Kevin Mazur/WireImage/Getty Images.

DISRUPTION IN CONTENT DELIVERY Online streaming is quickly replacing ownership through downloads. The shift from owning content to renting it on demand is disrupting the content delivery business. This disruption is most visible in movies, as the success of Netflix demonstrates, but is also gaining steam in music.

After disrupting the music download space with iTunes in 2003, Apple found its service being disrupted by leaders in the music streaming industry. Then, in 2013, it created iTunes Radio as an initial attempt at online music streaming. However, that attempt failed to meet with much success until Apple acquired Beats Music, which turned Apple into a

dominant player again—this time in the music streaming space. By 2019, Apple Music had surpassed market leader Spotify in paid U.S. subscribers, but it trailed the Swedish rival globally. Coming on strong is Amazon with its Prime Music and Music Unlimited services. In the "coolness space," Apple faces a formidable rival in music streaming service Tidal, founded by rap mogul Jay-Z. Tidal has exclusive release contracts with superstar artists such as Kanye West, Rihanna, and Beyoncé (who is married to Jay-Z). Tidal, however, had only 4.2 million paid subscribers by the end of 2018.

In addition to new strategic initiatives in financial services and online gaming, Apple announced a further major push into the entertainment industry in 2019. The firm is now making its Apple TV app, which will carry original content, available on competitors' devices. Apple TV also will serve as a portal log-on where users can view content from Apple as well as from AT&T's HBO or CBS's Showtime. This strategic initiative marks a stark shift in Apple's focus on a closed ecosystem. With this strategic pivot, Apple is moving into the $100 billion entertainment industry and will compete head-on with other tech companies such as Amazon and Netflix, as well as old-line companies such as Comcast (part-owner of Hulu, a streaming service) and AT&T, which owns WarnerMedia (including HBO).[8]

For an overview of the core competencies of different companies with application examples, see Exhibit 4.3.

EXHIBIT 4.3 Company Examples of Core Competencies and Applications

Company	Core Competencies	Application Examples
Amazon	• Superior IT and AI capabilities. • Superior customer service. • Diversification across different industries. • Establishing an ecosystem, combining hardware with software around its Amazon Echo platform.	• Online retailing: Largest selection of items online. • Full vertical integration in retail, from warehouse to delivery. • Cloud computing: Largest provider through Amazon Web Services (AWS).
Apple	• Superior industrial design in integration of hardware and software. • Superior marketing and retailing experience. • Establishing and maintaining an ecosystem of products and services that reinforce one another in a virtuous fashion.	• Creation of innovative and category-defining mobile devices and software services that take the user's experience to a new level (e.g., iMac, iPod, iTunes, iPhone, iPad, Apple Watch, Apple TV, Apple Pay, and Apple Card).
Beats Electronics	• Superior marketing: creating a perception of coolness. • Establishing an ecosystem, combining hardware (headphones) with software (streaming service).	• Beats by Dr. Dre and Beats Music.
Coca-Cola Co.	• Superior marketing and distribution.	• Leveraging one of the world's most recognized brands (based on its original "secret formula") into a diverse lineup of soft drinks. • Global availability of products.
ExxonMobil	• Superior at discovering and exploring fossil-fuel–based energy sources globally.	• Focus on oil and gas (fossil fuels only, not renewables).
Facebook	• Superior IT and AI capabilities to provide reliable social network services globally on a large scale. • Superior algorithms to offer targeted online ads.	• Connecting over 2 billion social media users worldwide. • News feed, timeline, graph search, and stories.
Five Guys	• Superior ability to deliver fresh, customized hamburgers as well as hand-cut fries using the highest- quality ingredients.	• Hamburgers and fries.

(*Continued*)

Company	Core Competencies	Application Examples
Google (a subsidiary of Alphabet)	• Superior in creating proprietary algorithms based on large amounts of data collected online. • Superior AI capability.	• Software products and services for the internet and mobile computing, including some mobile devices (Pixel phone, Chromebook). • Online search, Android mobile operating system, Chrome OS, Chrome web browser, Google Play, AdWords, AdSense, Google docs, Gmail, etc.
IKEA	• Superior in designing modern functional home furnishings at low cost. • Superior retail experience.	• Fully furnished room setups, practical tools for all rooms, do-it-yourself.
McKinsey	• Superior in developing practice-relevant knowledge, insights, and frameworks in strategy.	• Management consulting; in particular, strategy consulting provided to company and government leaders.
Netflix	• Superior in creating proprietary algorithms-based individual customer preferences.	• DVD-by-mail rentals, streaming media (including proprietary) content, connection to game consoles.
Tesla	• Superior engineering expertise in designing high-performance battery-powered motors and power trains. • Superior ability to provide complementary assets. • Superior expertise in decentralized power storage and management based on renewable (solar) energy.	• Model S, Model X, Model 3, and Model Y. • Network of proprietary charging stations, spanning entire United States and most of the rest of the world. • Powerwall, solar roof tiles, and complete rooftop solar systems.
Uber	• Superior mobile-app–based transportation and logistics expertise focused on cities, but on global scale.	• Uber, UberX, UberBlack, UberLUX, UberSUV, etc.

RESOURCES AND CAPABILITIES

Because core competencies are critical to gaining and sustaining competitive advantage, it is important to understand how they are created. Companies develop core competencies through the interplay of resources and capabilities. Exhibit 4.4 shows this relationship. **Resources** are any assets such as cash, buildings, machinery, or intellectual property that a firm can draw on when crafting and executing a strategy. Resources can be either tangible or intangible. **Capabilities** are the organizational and managerial skills necessary to orchestrate a diverse set of resources and to deploy them strategically. Capabilities are by nature intangible. They find their expression in a company's structure, routines, and culture.

As shown in Exhibit 4.4, such competencies are demonstrated in the company's activities, which can lead to competitive advantage, resulting in superior firm performance. **Activities** are distinct and fine-grained business processes such as order taking, the physical delivery of products, or invoicing customers. Each distinct activity enables firms to add incremental value by transforming inputs into goods and services. In the interplay of resources and

resources Any assets that a firm can draw on when formulating and implementing a strategy.

capabilities Organizational and managerial skills necessary to orchestrate a diverse set of resources and deploy them strategically.

activities Distinct and fine-grained business processes that enable firms to add incremental value by transforming inputs into goods and services.

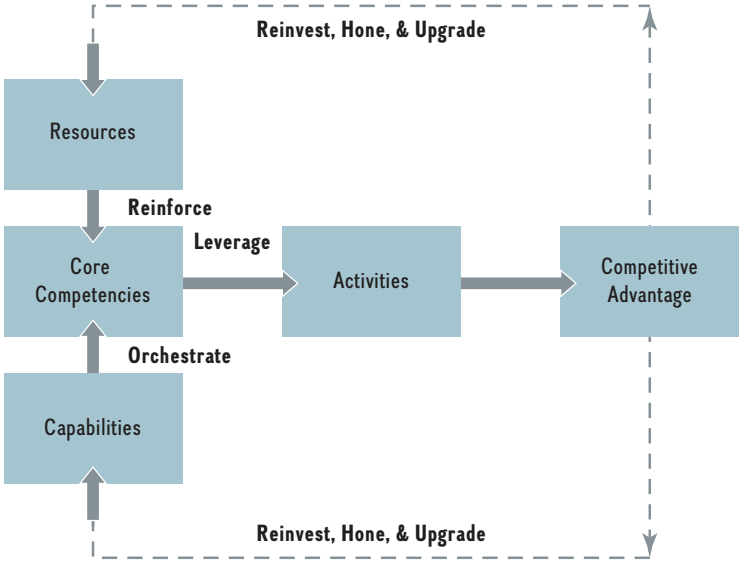


EXHIBIT 4.4

Linking Core Competencies, Resources, Capabilities, and Activities to Competitive Advantage

capabilities, resources reinforce core competencies, while capabilities allow managers to orchestrate their core competencies. Strategic choices find their expression in a set of specific firm activities, which leverage core competencies for competitive advantage. The arrows leading back from competitive advantage to resources and capabilities indicate that superior performance in the marketplace generates profits that to some extent need to be reinvested into the firm (retained earnings) to further hone and upgrade a firm's resources and capabilities in its pursuit of achieving and maintaining a strategic fit within a dynamic environment.

We should make two more observations about Exhibit 4.4 before moving on. First, core competencies that are not continuously nourished will eventually lose their ability to yield a competitive advantage. And second, in analyzing a company's success in the market, it can be too easy to focus on the more *visible* elements or facets of core competencies such as superior products or services. While these are the outward manifestations of core competencies, what is even more important is to understand the *invisible* part of core competencies.

As to the first point, let's consider the consumer electronics industry. For some years, Best Buy outperformed Circuit City based on its strengths in customer-centricity (segmenting customers based on demographic, attitudinal, and value tiers, and configuring stores to serve the needs of the customer segments in that region), employee development, and exclusive branding. Although Best Buy outperformed Circuit City (which filed for bankruptcy in 2009), more recently Best Buy did not hone and upgrade its core competencies sufficiently to compete effectively against Amazon, the world's largest online retailer. Amazon does not have the overhead expenses associated with maintaining buildings or human sales forces; therefore, it has a lower cost structure and thus can undercut in-store retailers on price. When a firm does not invest in continual upgrading or improving core competencies, its competitors are more likely to develop equivalent or superior skills, as Amazon did. This insight will allow us to explain differences between firms in the same industry, as well as competitive dynamics, over time. It will also help us to identify the strategy that firms use to both gain and sustain a competitive advantage, as well as to weather an adverse external environment.

As to the second point, we will soon introduce tools to clarify the more opaque aspects of a firm's core competencies. We start by looking at both tangible and intangible resources.

LO 4-3

Compare and contrast tangible and intangible resources.

4.3 The Resource-Based View

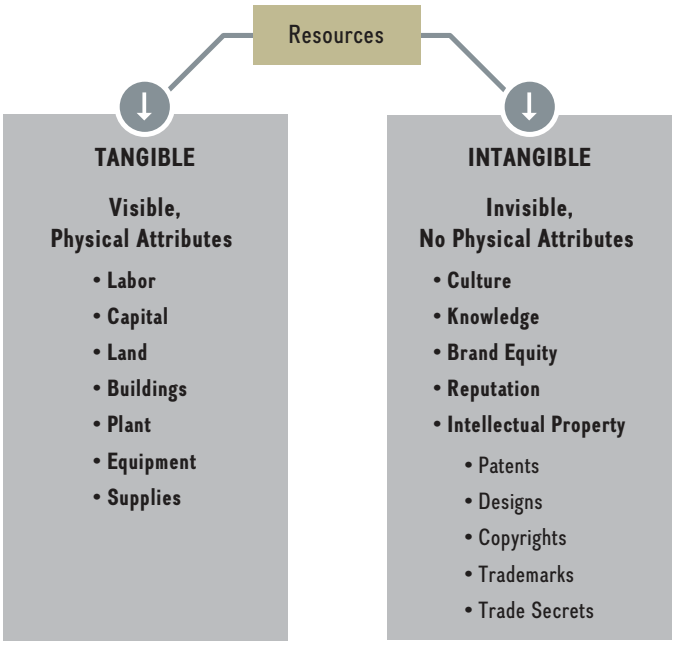
To gain a deeper understanding of how the interplay between resources and capabilities creates core competencies that drive firm activities leading to competitive advantage, we turn to the **resource-based view** of the firm. This model systematically aids in identifying core competencies.[9] As the name suggests, this model sees resources as key to superior firm performance. As Exhibit 4.5 illustrates, resources fall broadly into two categories: tangible and intangible. **Tangible resources** have physical attributes and are visible. Examples of tangible resources are labor, capital, land, buildings, plant, equipment, and supplies. **Intangible resources** have no physical attributes and thus are invisible. Examples of intangible resources are a firm's culture, its knowledge, brand equity, reputation, and intellectual property.

Consider Google (since 2015 a subsidiary of Alphabet, which is a holding company overseeing a diverse set of activities). Alphabet's tangible resources, valued at $59 billion, include its headquarters (The Googleplex)[10] in Mountain View, California, and numerous server farms (clusters of computer servers) across the globe.[11] The Google brand, an intangible resource, is valued at over $300 billion (number one worldwide)—almost seven times higher than the value of Alphabet's tangible assets.[12]

Google's headquarters exemplifies both tangible and intangible resources. The Googleplex is a piece of land on which sits a futuristic building, and thus a tangible resource. However, the *location* of the company in the heart of Silicon Valley is an *intangible* resource in that it provides the company with several benefits. One is access to a valuable network of contacts, which includes a large and computer-savvy work force, as well as graduates and knowledge spillovers from numerous nearby universities; all this adds to Google's technical and managerial capabilities.[13] Another benefit is Google's proximity to Silicon Valley, which contains the highest concentration of venture capital firms in the United States. Venture capitalists tend to prefer local investments because the more local they are, the closer they can be monitored. Thus, their proximity to Google can be viewed as a mutual benefit.[14] In fact, initial funding to Google came from the well-known venture capital firms Kleiner Perkins Caufield & Byers and Sequoia Capital, both located in Silicon Valley.

Competitive advantage is more likely to spring from intangible rather than tangible resources. Tangible assets, such as buildings or computer servers, can be bought on the open market by anyone who has the necessary cash. However, a brand name must be built, often over long periods of time. In fact, it took mainstay firms such

EXHIBIT 4.5 Tangible and Intangible Resources



resource-based view A model that sees certain types of resources as key to superior firm performance.

tangible resources Resources that have physical attributes and thus are visible.

intangible resources Resources that do not have physical attributes and thus are invisible.

as Apple, Microsoft, Visa, McDonald's, and AT&T—five of the global top-10 most valuable brands—many years to build their value and to earn brand recognition in the marketplace. Yet, more recent companies such as Google (founded in 1998; brand value of over $300 billion), Amazon (founded in 1994; brand value of over $200 billion), Facebook (founded in 2004; brand value of over $160 billion), and the Chinese technology companies Tencent and Alibaba (founded in 1998 and 1999, respectively, each with brand values of over $110 billion) all accomplished their enormous brand valuations fairly quickly, largely due to their ubiquitous internet presence.[15]

resource In the resource-based view of the firm, a resource includes any assets as well as any capabilities and competencies that a firm can draw upon when formulating and implementing strategy.

Note that the resource-based view of the firm uses the term **resource** much more broadly than previously defined. In the resource-based view of the firm, a resource includes any assets as well as any capabilities and competencies that a firm can draw upon when formulating and implementing strategy. In addition, the usefulness of the resource-based view to explain and predict competitive advantage rests upon two critical assumptions about the nature of resources, to which we turn next.

RESOURCE HETEROGENEITY AND RESOURCE IMMOBILITY

LO 4-4

Evaluate the two critical assumptions about the nature of resources in the resource-based view.

The two assumptions critical to the resource-based model are: (1) *resource heterogeneity* and (2) *resource immobility*.[16] What does this mean? In the resource-based view, a firm is assumed to be a unique bundle of resources, capabilities, and competencies. The first critical assumption—**resource heterogeneity**—comes from the insight that bundles of resources, capabilities, and competencies differ across firms. This insight requires looking more critically at the resource bundles of firms competing in the *same* industry (or even the same strategic group), because each bundle is unique to some extent. For example, Southwest Airlines (SWA) and Alaska Airlines (AS) both compete in the same strategic group (low-cost, point-to-point airlines, see Exhibit 3.8). But they draw on different resource bundles. SWA's employee productivity tends to be higher than that of AS, because the two companies differ along human and organizational resources. At SWA, job descriptions are informal and employees pitch in to "get the job done." Pilots may help load luggage to ensure an on-time departure; flight attendants clean airplanes to help turn them around at the gate within 15 minutes from arrival to departure. This allows SWA to keep its planes flying for longer and lowers its cost structure, savings that SWA passes on to passengers in lower ticket prices.

resource heterogeneity Assumption in the resource-based view that a firm is a bundle of resources and capabilities that differ across firms.

The second critical assumption—**resource immobility**—describes the insight that resources tend to be "sticky" and don't move easily from firm to firm. Because of that stickiness, the resource differences that exist between firms are difficult to replicate and, therefore, can last for a long time. For example, SWA has enjoyed a sustained competitive advantage, allowing it to outperform its competitors over several decades. That resource difference is not due to a lack of imitation attempts, though. Continental and Delta both attempted to copy SWA, with Continental Lite and Song airline offerings, respectively. Neither airline, however, was able to successfully imitate the resource bundles and firm capabilities that make SWA unique. Combined, these insights tell us that resource bundles differ across firms, and such differences can persist for long periods. These two assumptions about resources are critical to explaining superior firm performance in the resource-based model.

resource immobility Assumption in the resource-based view that a firm has resources that tend to be "sticky" and that do not move easily from firm to firm.

Note, by the way, that the critical assumptions of the resource-based model are fundamentally different from the way in which a firm is viewed in the perfectly competitive industry structure introduced in Chapter 3. In perfect competition, all firms have access to the *same* resources and capabilities, ensuring that any advantage that one firm has will be short-lived. That is, when resources are freely available and mobile, competitors can move quickly to acquire resources that are utilized by the current market leader. Although some commodity markets approach this situation, most other markets include firms whose resource endowments

differ. The resource-based view, therefore, delivers useful insights to managers about how to formulate a strategy that will enhance the chances of gaining a competitive advantage.

LO 4-5

Apply the VRIO framework to assess the competitive implications of a firm's resources.

THE VRIO FRAMEWORK

One important tool for evaluating a firm's resource endowments is a framework that answers the question, *What resource attributes underpin competitive advantage?* This framework is implied in the resource-based model, identifying certain *types of resources* as key to superior firm performance.[17] For a resource to be the basis of a competitive advantage, it must be

Valuable,
Rare, and costly to
Imitate. And finally, the firm itself must be
Organized to capture the value of the resource.

VRIO framework
A theoretical framework that explains and predicts firm-level competitive advantage.

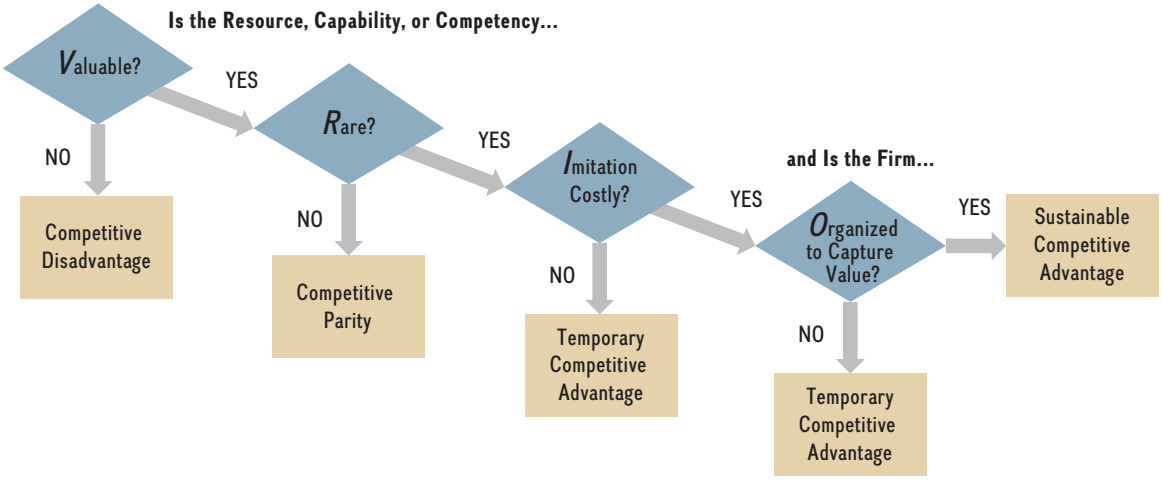
Following the lead of Jay Barney, one of the pioneers of the resource-based view of the firm, we call this model the **VRIO framework**.[18] According to this model, a firm can gain and sustain a competitive advantage only when it has resources that satisfy all of the VRIO criteria. Keep in mind that resources in the VRIO framework are broadly defined to include any assets *as well as* any capabilities and competencies that a firm can draw upon when formulating and implementing strategy. So to some degree, this presentation of the VRIO model summarizes all of our discussion in the chapter so far.

Exhibit 4.6 captures the VRIO framework in action. You can use this decision tree to decide if the resource, capability, or competency under consideration fulfills the VRIO requirements. As you study the following discussion of each of the VRIO attributes, you will see that the attributes accumulate. If the answer is "yes" four times to the attributes listed in the decision tree, only then is the resource in question a core competency that underpins a firm's sustainable competitive advantage.

valuable resource
One of the four key criteria in the VRIO framework. A resource is valuable if it helps a firm exploit an external opportunity or offset an external threat.

VALUABLE. A **valuable resource** is one that enables the firm to exploit an external opportunity or offset an external threat. This has a positive effect on a firm's competitive advantage. In particular, a valuable resource enables a firm to increase its economic value creation

EXHIBIT 4.6 Applying the VRIO Framework to Reveal Competitive Advantage



($V - C$). Revenues rise if a firm is able to increase the perceived value of its product or service in the eyes of consumers by offering superior design and adding attractive features (assuming costs are not increasing). Production costs, for example, fall if the firm is able to put an efficient manufacturing process and tight supply chain management in place (assuming perceived value is not decreasing).

Five Guys' superior ability to deliver fresh, customized hamburgers as well as hand-cut fries using the highest-quality ingredients is certainly valuable because it enables the firm to command a premium price due to its perceived higher value creation. Although Five Guys excels at driving up the perceived value of its offerings, it also needs to control costs to ensure that this valuable resource can lay the foundation for a competitive advantage.

RARE. A resource is **rare** if only one or a few firms possess it. If the resource is common, it will result in perfect competition where no firm is able to maintain a competitive advantage (see discussion in Chapter 3). A resource that is valuable but not rare can lead to competitive parity at best. A firm is on the path to competitive *advantage* only if it possesses a valuable resource that is also rare.

rare resource One of the four key criteria in the VRIO framework. A resource is rare if the number of firms that possess it is less than the number of firms it would require to reach a state of perfect competition.

When Five Guys was founded in 1986, its superior ability to deliver made-to-order hamburgers from the freshest ingredients and hand-cut fries made from the best potatoes was certainly rare, as was its restaurant concept: It was neither a fast food place nor a traditional sit-down establishment. It offered a limited menu, no drive-through option, and a self-service format. This remains the case and Five Guys has managed to charge premium prices for its product—prices that are multiple times higher than that of its fast food competitors. Today, restaurant models like Five Guys are called fast-casual restaurants, a term that didn't come into the dining vernacular until the 2000s, despite well-known Five Guys' competitors such as Chipotle Mexican Grill (founded in 1993) coming onto the scene much earlier.

To further underscore that Five Guys was rare on multiple fronts is the fact that its more direct competitors (and imitators) in the "better burger" segment—Shake Shack (founded in 2004), Smashburger (founded in 2007), and Burger Fi (founded in 2011)—were not launched until much later. This head start gave Five Guys the ability to perfect its core competencies over a long period of time before it decided to franchise (see Exhibit 4.1). Moreover, because it was so early to the fast-casual dining market, Five Guys was able to enjoy a first-mover advantage, including locking up the best store locations and perhaps more importantly the best suppliers (e.g., Rick Miles of Rigby, Idaho, is Five Guys' sole supplier of potatoes).

COSTLY TO IMITATE. A resource is **costly to imitate** if firms that do not possess the resource are unable to develop or buy the resource at a reasonable price. If the resource in question is valuable, rare, and costly to imitate, then it is an internal strength and a core competency. If the firm's competitors fail to duplicate the strategy based on the valuable, rare, and costly-to-imitate resource, then the firm can achieve a temporary competitive advantage.

costly-to-imitate resource One of the four key criteria in the VRIO framework. A resource is costly to imitate if firms that do not possess the resource are unable to develop or buy the resource at a comparable cost.

For more than 30 years now, Five Guys has delivered fresh, made-to-order premium burgers and fries. In doing so consistently, Five Guys enjoys a cult-like following by its customers. This led to its 50 percent market share in the "better burger" segment during the 2010s. In addition, Five Guys spent almost 20 years refining, honing, upgrading, and eventually perfecting its core competency before franchising nationally. This in turn enabled Five Guys to more easily duplicate its core competency in different geographic areas as it franchised throughout the United States and beyond.

Although it may appear to be a simple business model ("make the best burger"), it is by no means simplistic. Coordinating a multilayered supply chain of a fairly large number of high-quality, fresh ingredients is a complex undertaking. For example, making sure there are no foodborne illnesses requires strict adherence to established food-handling protocols and

Tiffany & Co. has developed a core competency–elegant jewelry design and craftsmanship delivered through a superior customer experience–that is valuable, rare, and costly for competitors to imitate. The company vigorously protects its trademarks, including its Tiffany Blue Box, but it never trademarked the so-called Tiffany setting for diamond rings, used now by many jewelers. The term has been co-opted for advertising by other retailers (including Costco), which now maintain it is a generic term commonly used in the jewelry industry. Lucas Oleniuk/Toronto Star/Getty Images

best practices in every one of its 1,500 stores. In addition, much of Five Guys' business was built around Jerry Murrell's gut feeling—something that cannot be imitated. In fact, Murrell himself cannot articulate the many "strategic hunches" he has had over the years.[19]

Unlike Five Guys, imitators such as Shake Shack, Smashburger, and Burger Fi franchised almost immediately after launching. The Five Guys' imitators moved so rapidly because of their relatively late entry in the market, and thus in their attempt to compete nationwide with Five Guys. In doing so, however, the imitators discovered that it is quite costly to imitate Five Guys' core competency. Moreover, given that most of these chains franchised more or less immediately, they were unable to perfect their competency before expanding. Taken together, the combination of the three resource attributes ($V + R + I$) has allowed Five Guys to enjoy a competitive advantage (see Exhibit 4.6).

Direct Imitation. A firm that enjoys a competitive advantage, however, attracts significant attention from its competitors. They will attempt to negate a firm's resource advantage by directly imitating the resource in question (*direct imitation*) or through working around it to provide a comparable product or service (*substitution*).

We usually see direct imitation, as a way to copy or imitate a valuable and rare resource, when firms have difficulty protecting their advantage. (We discuss barriers to imitation shortly.) Direct imitation can be swift if the firm is successful and intellectual property (IP) protection such as patents or trademarks, for example, can be easily circumvented.

Crocs, the maker of the iconic plastic clog, fell victim to direct imitation. Launched in 2002 as a spa shoe at the Fort Lauderdale, Florida, boat show, Crocs experienced explosive growth, selling millions of pairs each year and reaching over $650 million in revenue in 2008. Crocs are worn by people in every age group and across all walks of life, including internet entrepreneur and Google co-founder Sergey Brin, celebrities such as Matt Damon, Heidi Klum, Adam Sandler, and even the Duchess of Cambridge Kate Middleton. To protect its unique shoe design, the firm owns several patents. Given Crocs' explosive growth, however, numerous cheap imitators have sprung up to copy the colorful and comfortable plastic clog. Despite the patents and celebrity endorsements, other firms were able to copy the shoe, taking a big bite into Crocs' profits. Indeed, Crocs' share price plunged from a high of almost $75 to less than $1 in just 13 months.[20]

This example illustrates that competitive advantage cannot be sustained if the underlying capability can easily be replicated and can thus be *directly imitated.* Competitors simply created molds to imitate the shape, look, and feel of the original Crocs shoe. Any competitive advantage in a fashion-driven industry, moreover, is notoriously short-lived if the company fails to continuously innovate or build such brand recognition that imitators won't gain a foothold in the market. Crocs was more or less a "one-trick pony."

The ChapterCase notes that Five Guys' imitators in the "better burger" segment were all founded only after Five Guys started to franchise in 2003. Not only did Five Guys have an almost 20-year lead in perfecting its core competency, but also within 18 months of starting to franchise it sold out of U.S. territory, and its franchisees had locked up most of the best locations. Given the timing of Five Guys' competitors' entry, the success of Five Guys clued them in that the fast-casual burger segment is highly profitable, and thus they set out on a direct imitation attempt. First-mover advantages in combination with a perfected core competency, however, allowed Five Guys to make such direct imitation attempts quite difficult, and thus to sustain its competitive advantage.

Substitution. The second avenue of imitation for a firm's valuable and rare resource is through *substitution.* This is often accomplished through *strategic equivalence.* Take the example

of Jeff Bezos launching and developing Amazon.[21] Before Amazon's inception, the retail book industry was dominated by a few large chains and many independent bookstores. As the internet was emerging in the 1990s, Bezos was looking for options in online retail. He zeroed in on books because of their non-differentiated commodity nature and easiness to ship. In purchasing a printed book online, customers knew exactly what they would be shipped, because the products were identical, whether sold online or in a brick-and-mortar store. The only difference was the mode of transacting and delivery. Taking out the uncertainty of online retailing to some extent made potential customers more likely to try this new way of shopping.

The emergence of the internet allowed Bezos to come up with a new distribution system that negated the need for retail stores and thus high real estate costs. Bezos' new business model of ecommerce not only substituted for the traditional fragmented supply chain in book retailing, but also allowed Amazon to offer lower prices due to its lower operating costs. Amazon uses a strategic equivalent substitute to satisfy a customer need previously met by brick-and-mortar retail stores.

Combining Imitation and Substitution. In some instances, firms are able to combine direct imitation and substitution when attempting to mitigate the competitive advantage of a rival. With its Galaxy line of smartphones, Samsung has been able to imitate successfully the look and feel of Apple's iPhones. Samsung's Galaxy smartphones use Google's Android operating system and apps from Google Play as an alternative to Apple's iOS and iTunes Store. Samsung achieved this through a combination of *direct imitation* (look and feel) and *substitution* (using Google's mobile operating system and app store).[22]

More recently Amazon has opened a new chapter in its competitive moves by its acquisition of the brick-and-mortar Whole Foods in 2017. As we will see in ChapterCase 8, Amazon's entry into high-end groceries involves both imitation and substitution.

ORGANIZED TO CAPTURE VALUE. The final criterion of whether a rare, valuable, and costly-to-imitate resource can form the basis of a sustainable competitive advantage depends on the firm's internal structure. To fully exploit the competitive potential of its resources, capabilities, and competencies, a firm must be **organized to capture value**—that is, it must have in place an effective organizational structure and coordinating systems. (We will study organizational design in detail in Chapter 11.)

organized to capture value One of the four key criteria in the VRIO framework. The characteristic of having in place an effective organizational structure, processes, and systems to fully exploit the competitive potential of the firm's resources, capabilities, and competencies.

Before Apple or Microsoft had any significant share of the personal computer market, Xerox's Palo Alto Research Center (PARC) invented and developed an early word-processing application, the graphical user interface (GUI), the Ethernet, the mouse as a pointing device, and even the first personal computer. These technology breakthroughs laid the foundation of the desktop-computing industry.[23] Xerox's invention competency built through a unique combination of resources and capabilities was clearly valuable, rare, and costly to imitate with the potential to create a competitive advantage.

Due to a lack of appropriate organization, however, Xerox failed to appreciate and exploit the many breakthroughs made by PARC in computing software and hardware. Why? Because the innovations did not fit within the Xerox business focus at the time. Under pressure in its core business from Japanese low-cost competitors, Xerox's top management was busy pursuing innovations in the photocopier business. Xerox was not organized to appreciate the competitive potential of the valuable, rare, and inimitable resources generated at PARC, if not in the photocopier field. Such organizational problems were exacerbated by geography: Xerox headquarters is on the East Coast in Norwalk, Connecticut, across the country from PARC on the West Coast in Palo Alto, California.[24] Nor did it help that development engineers at Xerox headquarters had a disdain for the scientists engaging in basic research at PARC. In the meantime, both Apple and Microsoft developed operating systems, graphical user interfaces, and application software.

If a firm is not effectively organized to exploit the competitive potential of a valuable, rare, and costly-to-imitate (VRI) resource, the best-case scenario is a temporary competitive advantage (see Exhibit 4.6). In the case of Xerox, where management was not supportive of the resource, even a temporary competitive advantage would not be realized even though the resource meets the VRI requirements.

In summary, for a firm to gain and sustain a competitive advantage, its resources and capabilities need to interact in such a way as to create unique core competencies (see Exhibit 4.4). Ultimately, though, only a few competencies may turn out to be those *specific* core competencies that fulfill the VRIO requirements.[25] A company cannot do everything equally well and must carve out a unique strategic position for itself, making necessary trade-offs.[26] Strategy Highlight 4.2 demonstrates application of the VRIO framework.

LO 4-6

Evaluate different conditions that allow a firm to sustain a competitive advantage.

ISOLATING MECHANISMS: HOW TO SUSTAIN A COMPETITIVE ADVANTAGE

Although VRIO resources can lay the foundation of a competitive advantage, no competitive advantage can be sustained indefinitely.[27] Several conditions, however, can potentially protect a successful firm by making it more difficult for competitors to imitate the resources, capabilities, and competencies that underlie its competitive advantage. Those conditions include *barriers to imitation,* which are important examples of **isolating mechanisms** that prevent rivals from competing away the advantage a firm may enjoy. They include:[28]

isolating mechanisms Barriers to imitation that prevent rivals from competing away the advantage a firm may enjoy.

- Better expectations of future resource value.
- Path dependence.
- Causal ambiguity.
- Social complexity.
- Intellectual property (IP) protection.

Each isolating mechanism is directly related to one of the criteria in the resource-based view used to assess the basis of competitive advantage: costly (or difficult) to imitate. If one, or any combination, of these isolating mechanisms is present, a firm may strengthen its basis for competitive advantage, increasing its chance to be sustainable over a longer period of time.

BETTER EXPECTATIONS OF FUTURE RESOURCE VALUE. Sometimes firms can acquire resources at a low cost. This acquisition can lay the foundation for a competitive advantage later, when expectations about the future of the resource turn out to be more accurate than those held by competitors. Better expectations of the future value of a resource allow a firm to gain a competitive advantage. If such better expectations can be systematically repeated over time, then it can help a firm develop a *sustainable* competitive advantage.

Let's see how the concept of better expectations of future resource value works in the case of Jane, a real-estate developer looking to purchase land. Jane must decide when and where to buy land for future development. If she buys a parcel of land for a low cost in an undeveloped rural area 40 miles north of San Antonio, Texas, her firm may gain a competitive advantage—if it anticipates the land will increase in value with shifting demographics. Now, let's assume, several years later, an interstate highway gets built near this land. With the highway, suburban growth explodes. New neighborhoods emerge and several new shopping malls are erected. Jane's firm is now able to further develop the property she purchased. It decides, for instance, to build high-end office and apartment buildings to accommodate the suburban growth. Thus, the value creation resulting from the purchase of the land ends up far exceeding its initial cost. This in turn allows Jane's firm to gain a competitive advantage over other real estate developers in the area.

Strategy Highlight 4.2

Applying VRIO: The Rise and Fall of Groupon

After graduating with a degree in music from Northwestern University, Andrew Mason spent a couple of years as a web designer. In 2008, the then 27-year-old founded Groupon, a daily-deal website that connects local retailers and other merchants to consumers by offering goods and services at a discount. Groupon creates marketplaces by bringing the brick-and-mortar world of local commerce onto the internet. The company basically offers a "group-coupon." If more than a predetermined number of Groupon users sign up for the offer, the deal is extended to all Groupon users. For example, a local spa may offer a massage for $40 instead of the regular $80. If more than say 10 people sign up, the deal becomes reality. The users prepay $40 for the coupon, which Groupon splits 50-50 with the local merchant. Inspired by how Amazon has become the global leader in ecommerce, Mason's strategic vision for Groupon was *to be the global leader in local commerce.*

Measured by its explosive growth, Groupon became one of the most successful internet startups, with over 260 million subscribers and serving more than 500,000 merchants in the United States and some 50 countries. Indeed, Groupon's success attracted a $6 billion buyout offer by Google in early 2011, which Mason declined. In November 2011, Groupon held a successful initial public offering (IPO), valued at more than $16 billion with a share price of over $26. But a year later, Groupon's share price had fallen 90 percent to just $2.63, resulting in a market cap of less than $1.8 billion. In early 2013, Mason posted a letter for Groupon employees on the web, arguing that it would leak anyway, stating, "After four and a half intense and wonderful years as CEO of Groupon, I've decided that I'd like to spend more time with my family. Just kidding—I was fired today."

Although Groupon is still in business, it is just one competitor among many and not a market leader. What went wrong? The implosion of Groupon's market value can be explained using the VRIO framework. Its competency to drum up more business for local retailers by offering lower prices for its users was certainly *valuable.* Before Groupon, local merchants used online and classified ads, direct mail, yellow pages, and other venues to reach customers. Rather than using one-way communication, Groupon facilitates the meeting of supply and demand in local markets. When Groupon launched, such local market-making competency was also *rare.* Groupon, with its first-mover advantage, seemed able to use technology in a way so valuable and rare it prompted Google's buyout offer. But was it costly to imitate? Not so much.

The multibillion-dollar Google offer spurred potential competitors to reproduce Groupon's business model. They discovered that Groupon was more of a sales company than a tech venture, despite perceptions to the contrary. To target and fine-tune its local deals, Groupon relies heavily on human labor to do the selling. Barriers to entry in this type of business are nonexistent because Groupon's competency is built more on a tangible resource (labor) than on an intangible one (proprietary technology). Given that Groupon's valuable and rare competency was *not hard to imitate,* hundreds of new ventures (so-called Groupon clones) rushed in to take advantage of this opportunity. Existing online giants such as Google, Amazon (via LivingSocial), and Facebook also moved in. The spurned Google almost immediately created its own daily-deal version with Google Offers.

Also, note that the ability to imitate a rare and valuable resource is directly linked to barriers of entry, which is one of the key elements in Porter's five forces model *(threat of new entrants).* This relationship allows linking internal analysis using the resource-based view to external analysis with the five forces model, which also would have predicted low industry profit potential given low or no barriers to entry.

To make matters worse, these Groupon clones are often able to better serve the needs of local markets and specific population groups. Some daily-deal sites focus only on a specific geographic area. As an example, Conejo Deals meets the needs of customers and retailers in Southern California's Conejo Valley, a cluster of suburban communities. These hyper-local sites tend to have much deeper relationships and expertise with merchants in their specific areas. Since they are mostly matching local customers with local businesses, moreover, they tend to foster more repeat business than the one-off bargain hunters that use Groupon (based in Chicago). In addition, some daily-deal sites often target specific groups. They have greater expertise in matching their users with local retailers (e.g., Daily Pride serving LGBT communities;

(*Continued*)

Black Biz Hookup serving African-American business owners and operators; Jdeal, a Jewish group-buying site in New York City; and so on).

"Finding your specific group" or "going hyper local" allows these startups to increase the perceived value added for their users over and above what Groupon can offer. Although Groupon aspires to be the *global leader,* there is really no advantage to global scale in serving local markets. This is because daily-deal sites are best suited to market *experience goods,* such as haircuts at a local barber shop or a meal in a specific Thai restaurant. The quality of these goods and services cannot be judged unless they are consumed. Creation of experience goods and their consumption happens in the *same geographic space.*

Once imitated, Groupon's competency to facilitate local commerce using an internet platform was neither valuable nor rare. As an application of the VRIO model would have predicted, Groupon's competitive advantage as a first mover would only be temporary at best (see Exhibit 4.6).[29]

Other developers could have purchased the precise parcel of land that Jane bought. But if they decided to do this only after construction of the highway was announced, then they would have had to pay a much higher price for this land (and the land adjacent to it). Why? Because in order to reflect the new reality of being located next to an interstate, the price of the land would have increased. In other words, the expectations of the future value of the land would have adjusted upwardly. This increase in the price of the land to reflect its future value, in turn, would have negated any potential for competitive advantage.

All these factors together led Jane to develop better expectations of the future value of the resource than her competitors did—in this case, the land she purchased. If Jane is able to repeat these better expectations over time in a more or less systematic fashion, then her firm will likely gain a sustainable competitive advantage. Otherwise, the decision to purchase this particular piece of land may just be considered a stroke of luck. Although luck can play a role in gaining an initial competitive advantage, it is not a basis for sustaining one.

path dependence
A situation in which the options one faces in the current situation are limited by decisions made in the past.

PATH DEPENDENCE. **Path dependence** describes a process in which the options one faces in a current situation are limited by decisions made in the past.[30] Often, early events—sometimes even random ones—have a significant effect on final outcomes.

The U.S. carpet industry provides an example of path dependence.[31] Roughly 85 percent of all carpets sold in the United States and almost one-half of all carpets sold worldwide come from carpet mills located within 65 miles of one city: Dalton, Georgia. While the U.S. manufacturing sector has suffered in recent decades, the carpet industry has flourished. Companies not clustered near Dalton face a disadvantage because they cannot readily access the required know-how, skilled labor, suppliers, low-cost infrastructure, and so on needed to be competitive.

But why Dalton? Two somewhat random events combined. First, the boom after World War II drew many manufacturers to the South to escape restrictions placed upon them in the North, such as higher taxation or the demands of unionized labor. Second, technological progress allowed industrial-scale production of tufted textiles to be used *as substitutes for the more expensive wool.* This innovation emerged in and near Dalton. This historical accident explains why today almost all U.S. carpet mills are located in a relatively small region, including world leaders Shaw Industries Group and Mohawk Industries.

Path dependence also rests on the notion that time cannot be compressed at will. While management can compress resources such as labor and R&D into a shorter period, the push will not be as effective as when a firm spreads out its effort and investments over a longer period. Trying to achieve the same outcome in less time, even with higher investments, tends to lead to inferior results, due to *time compression diseconomies*.[32]

Consider GM's problems in providing a competitive alternative to the highly successful Toyota Prius, a hybrid electric vehicle. Its problems highlight path dependence and time

compression issues. The California Air Resource Board (CARB) in 1990 passed a mandate for introducing zero-emissions cars, which stipulated that 10 percent of new vehicles sold by carmakers in the state must have zero emissions by 2003. This mandate not only accelerated research in alternative energy sources for cars, but also led to the development of the first fully electric production car, GM's EV1. GM launched the car in California and Arizona in 1996. Competitive models followed, with the Toyota RAV EV and the Honda EV. In this case, regulations in the legal environment fostered innovation in the automobile industry (see the discussion of PESTEL forces in Chapter 3).

Companies not only feel the nudge of forces in their environment but can also push back. The California mandate on zero emissions, for example, did not stand.[33] Several stakeholders, including the car and oil companies, fought it through lawsuits and other actions. CARB ultimately gave in to the pressure and abandoned its zero-emissions mandate. When the mandate was revoked, GM recalled and destroyed its EV1 electric vehicles and terminated its electric-vehicle program. This decision turned out to be a strategic error that would haunt GM a decade or so later. Although GM was the leader among car companies in electric vehicles in the mid-1990s, it did not have a competitive model to counter the Toyota Prius when its sales took off in the early 2000s. The Chevy Volt (a plug-in hybrid), GM's first major competition to the Prius, was delayed by over a decade because GM had to start its electric-vehicle program basically from scratch. While GM sold about 50,000 Chevy Volts worldwide, Toyota sold some 10 million Prius cars. Moreover, when Nissan introduced its all-electric Leaf in 2010, GM did not have an all-electric vehicle in its lineup. In the meantime, Nissan sold over 400,000 Leafs worldwide.

Not having an adequate product lineup during the early 2000s, GM's U.S. market share dropped below 20 percent in 2009 (from over 50 percent a few decades earlier), the year it filed for bankruptcy. GM subsequently reorganized under Chapter 11 of the U.S. bankruptcy code, and relisted on the New York Stock Exchange in 2010.

Collaborating with LG Corp. of Korea, GM introduced the Chevy Bolt, an all-electric vehicle in 2017.[34] Although some of its features, such as a 230-mile range on a single charge, look attractive, it remains to be seen if the Chevy Bolt will do well in the marketplace. This is because competition did not stand still either. In the meantime, Tesla (featured in Chapter-Case 1) is hoping that its new Model 3 will take the mass market of electric cars by storm, as it is priced at $35,000, much lower than its luxury cars (Model S and Model X).

One important take-away here is that once the train of new capability development has left the station, it is hard to jump back on because of path dependence. Moreover, firms cannot compress time at will; indeed, learning and improvements must take place over time, and existing competencies must constantly be nourished and upgraded.

Strategic decisions generate long-term consequences due to path dependence and time-compression diseconomies; they are not easily reversible. A competitor cannot imitate or create core competencies quickly, nor can one buy a reputation for quality or innovation on the open market. These types of valuable, rare, and costly-to-imitate resources, capabilities, and competencies must be built and organized effectively over time, often through a painstaking process that frequently includes learning from failure.

causal ambiguity
A situation in which the cause and effect of a phenomenon are not readily apparent.

CAUSAL AMBIGUITY. **Causal ambiguity** describes a situation in which the cause and effect of a phenomenon are not readily apparent. To formulate and implement a strategy that enhances a firm's chances of gaining and sustaining a competitive advantage, managers need to have a hypothesis or theory of how to compete. A hypothesis is simply a specific statement that proposes an explanation of a phenomenon (such as competitive advantage), while a theory is a more generalized explanation of what causes what, and why. This implies that managers need to have some kind of understanding about what causes superior or

Marillyn Hewson is CEO of Lockheed Martin, a global player in aerospace, defense, security, and advanced technology. Facing ever more complex challenges, such firms only thrive with an effective organization and a highly skilled CEO like Hewson.
MANDEL NGAN/Contributor/Getty Images

inferior performance, and why. Comprehending and explaining the underlying reasons of observed phenomena is far from trivial, however.

Everyone can see that Apple has had several hugely successful innovative products such as the iMac, iPod, iPhone, and iPad, combined with its hugely popular iTunes services, leading to a decade of a sustainable competitive advantage. These successes stem from Apple's set of *V, R, I,* and *O* core competencies that supports its ability to continue to offer a variety of innovative products and to create an ecosystem of products and services.

A deep understanding, however, of exactly *why* Apple has been so successful is very difficult. Even Apple's strategic leaders may not be able to clearly pinpoint the sources of their success. Is it the visionary role that the late Steve Jobs played? Is it the rare skills of Apple's uniquely talented design team around Jonathan Ive (who left Apple in 2019)? Is it the timing of the company's product introductions? Is it Apple CEO Tim Cook who adds superior organizational skills and puts all the pieces together when running the day-to-day operations? Or is it a combination of these factors? If the link between cause and effect is ambiguous for Apple's strategic leaders, it is that much more difficult for others seeking to copy a valuable resource, capability, or competency.

social complexity A situation in which different social and business systems interact with one another.

SOCIAL COMPLEXITY. **Social complexity** describes situations in which different social and business systems interact. There is frequently no causal ambiguity as to how the *individual* systems such as supply chain management or new product development work in isolation. They are often managed through standardized business processes such as Six Sigma or ISO 9000. Social complexity, however, emerges when two or more such systems are *combined.* Copying the emerging complex social systems is difficult for competitors because neither direct imitation nor substitution is a valid approach. The interactions between different systems create too many possible permutations for a system to be understood with any accuracy. The resulting social complexity makes copying these systems difficult, if not impossible, resulting in a valuable, rare, and costly-to-imitate resource that the firm is organized to exploit.

Look at it this way. A group of three people has three relationships, connecting every person directly with one another. Adding a fourth person to this group *doubles* the number of direct relationships to six. Introducing a fifth person increases the number of relationships to 10.[35] This gives you some idea of how complexity might increase when we combine different systems with many different parts.

In reality, firms may manage thousands of employees from all walks of life. Their interactions within the firm's processes, procedures, and norms make up its culture. Although an observer may conclude that Zappos' culture, with its focus on autonomous teams in a flat hierarchy to provide superior customer service, might be the basis for its competitive advantage, engaging in reverse social engineering to crack Zappos' code of success might be much more difficult. Moreover, an organizational culture that works for online retailer Zappos, led by CEO and chief happiness officer Tony Hsieh, might wreak havoc for an aerospace and defense company such as Lockheed Martin, led by CEO Marillyn Hewson. This implies that one must understand competitive advantage within its organizational and industry context. Looking at individual elements of success without taking social complexity into account is a recipe for inferior performance, or worse.

intellectual property (IP) protection A critical intangible resource that can provide a strong isolating mechanism, and thus help to sustain a competitive advantage.

INTELLECTUAL PROPERTY PROTECTION. **Intellectual property (IP) protection** is a critical intangible resource that can also help sustain a competitive advantage. The five major forms of IP protection are[36]

- Patents
- Designs

- Copyrights
- Trademarks
- Trade secrets

The intent of IP protection is to prevent others from copying legally protected products or services. In many knowledge-intensive industries that are characterized by high research and development (R&D) costs, such as smartphones and pharmaceuticals, IP protection provides not only an incentive to make these risky and often large-scale investments in the first place, but also affords a strong isolating mechanism that is critical to a firm's ability to capture the returns to investment. Although the initial investment to create the first version of a new product or service is quite high in many knowledge-intensive industries, the *marginal cost* (i.e., the cost to produce the next unit) after initial invention is quite low.

For example, Microsoft spends billions of dollars to develop a new version of its Windows operating system; once completed, the cost of the next "copy" is close to zero because it is just software code distributed online in digital form. In a similar fashion, the costs of developing a new prescription drug, a process often taking more than a decade, are estimated to be over $2.5 billion.[37] Rewards to IP-protected products or services, however, can be high. During a little over 14 years on the market, Pfizer's Lipitor, the world's best-selling drug, accumulated over $125 billion in sales.[38]

IP protection can make direct imitation attempts difficult, if not outright illegal. A U.S. court, for example, has found that Samsung infringed in some of its older models on Apple's patents and awarded some $600 million in damages.[39] In a similar fashion, Dr. Dre (featured in Strategy Highlight 4.1) attracted significant attention and support from other artists in the music industry when he sued Napster, an early online music file-sharing service, and helped shut it down in 2001 because of copyright infringements.

IP protection does not last forever, however. Once the protection has expired, the invention can be used by others. Patents, for example, usually expire 20 years after they are filed with the U.S. Patent and Trademark Office. In the next few years, patents protecting roughly $100 billion in sales of proprietary drugs in the pharmaceutical industry are set to expire. Once this happens, producers of generics (drugs that contain the same active ingredients as the original patent-protected formulation) such as Teva Pharmaceutical Industries of Israel enter the market, and prices fall drastically. Pfizer's patent on Lipitor expired in 2011. Just one year later, of the 55 million Lipitor prescriptions, 45 million (or more than 80 percent) were generics.[40] Drug prices fall by 20 to 80 percent once generic formulations become available.[41]

Taken together, each of the five isolating mechanisms discussed here (or combinations thereof) allows a firm to extend its competitive advantage. Although no competitive advantage lasts forever, a firm may be able to protect its competitive advantage (even for long periods) when it has consistently better expectations about the future value of resources, when it has accumulated a resource advantage that can be imitated only over long periods of time, when the source of its competitive advantage is causally ambiguous or socially complex, or when the firm possesses strong intellectual property protection.

4.4 The Dynamic Capabilities Perspective

CORE RIGIDITIES

A firm's external environment is rarely stable (as discussed in Chapter 3). Rather, in many industries, the pace of change is ferocious. Firms that fail to adapt their core competencies to a changing external environment not only lose a competitive advantage but also may go out of business.

We've seen the merciless pace of change in consumer electronics retailing in the United States. Once a market leader, Circuit City's core competencies were in efficient logistics and superior customer service. But the firm neglected to upgrade and hone them over time. As a consequence, Circuit City was outflanked by Best Buy and online retailer Amazon, and the company went bankrupt. Best Buy encountered the same difficulties competing against Amazon just a few years later. Core competencies might form the basis for a competitive advantage at one point, but as the environment changes, the very same core competencies might later turn into *core rigidities,* retarding the firm's ability to change.[42]

core rigidity A former core competency that turned into a liability because the firm failed to hone, refine, and upgrade the competency as the environment changed.

A core competency can turn into a **core rigidity** if a firm relies too long on the competency without honing, refining, and upgrading as the environment changes.[43] Over time, the original core competency is no longer a good fit with the external environment, and it turns from an asset into a liability. The reason reinvesting, honing, and upgrading of resources and capabilities are so crucial to sustaining any competitive advantage is to prevent competencies from turning into core rigidities (see Exhibit 4.4). This ability to hone and upgrade lies at the heart of the dynamic capabilities perspective. We defined *capabilities* as the organizational and managerial skills necessary to orchestrate a diverse set of resources and to deploy them strategically. Capabilities are by nature intangible. They find their expression in a company's structure, routines, and culture.

LO 4-7

Outline how dynamic capabilities can enable a firm to sustain a competitive advantage.

DYNAMIC CAPABILITIES

The dynamic capabilities perspective adds, as the name suggests, a *dynamic* or time element. In particular, **dynamic capabilities** describe a firm's ability to create, deploy, modify, reconfigure, upgrade, or leverage its resources over time in its quest for competitive advantage.[44] Dynamic capabilities are essential to move beyond a short-lived advantage and create a sustained competitive advantage. For a firm to sustain its advantage, any fit between its internal strengths and the external environment must be dynamic. That is, the firm must be able to change its internal resource base as the external environment changes. The goal should be to develop resources, capabilities, and competencies that create a *strategic fit* with the firm's environment. Rather than creating a static fit, the firm's internal strengths should change with its external environment in a *dynamic* fashion.

dynamic capabilities A firm's ability to create, deploy, modify, reconfigure, upgrade, or leverage its resources in its quest for competitive advantage.

Not only do dynamic capabilities allow firms to adapt to changing market conditions, but they also enable firms to *create market changes* that can strengthen their strategic position. These market changes implemented by proactive firms introduce altered circumstances, to which more reactive rivals might be forced to respond. Apple's dynamic capabilities allowed it to redefine the markets for mobile devices and computing, in particular in music, smartphones, and media content. For the portable music market through its iPod and iTunes store, Apple generated environmental change to which Sony and others had to respond. With its iPhone, Apple redefined the market for smartphones, again creating environmental change to which competitors such as Samsung, BlackBerry, and Nokia needed to respond. Apple's introduction of the iPad redefined the media and tablet computing market, forcing competitors such as Amazon and Microsoft to respond. With the Apple Watch it is attempting to shape the market for computer wearables in its favor. Dynamic capabilities are especially relevant for surviving and competing in markets that shift quickly and constantly, such as the high-tech space in which firms such as Apple, Google, Microsoft, and Amazon compete.

dynamic capabilities perspective A model that emphasizes a firm's ability to modify and leverage its resource base in a way that enables it to gain and sustain competitive advantage in a constantly changing environment.

In the **dynamic capabilities perspective**, competitive advantage is the outflow of a firm's capacity to modify and leverage its resource base in a way that enables it to gain and sustain competitive advantage in a constantly changing environment. Given the accelerated pace of

technological change, in combination with deregulation, globalization, and demographic shifts, dynamic markets today are the rule rather than the exception. As a response, a firm may create, deploy, modify, reconfigure, or upgrade resources so as to provide value to customers and/or lower costs in a dynamic environment. The essence of this perspective is that competitive advantage is not derived from static resource or market advantages, but from a *dynamic reconfiguration* of a firm's resource base.

RESOURCE STOCKS AND RESOURCE FLOWS

One way to think about developing dynamic capabilities and other intangible resources is to distinguish between resource stocks and resource flows.[45] In this perspective, **resource stocks** are the firm's current level of intangible resources. **Resource flows** are the firm's level of investments to maintain or build a resource. A helpful metaphor to explain the differences between resource stocks and resource flows is a bathtub that is being filled with water (see Exhibit 4.7).[46] The amount of water in the bathtub indicates a company's level of a specific *intangible resource stock*—such as its dynamic capabilities, new product development, engineering expertise, innovation capability, reputation for quality, and so on.[47]

resource stocks The firm's current level of intangible resources.

resource flows The firm's level of investments to maintain or build a resource.

Intangible resource stocks are built through investments over time. In the exhibit, these investments are represented by the four faucets, from which water flows into the tub. Investments in building an innovation capability, for example, differ from investments made in marketing expertise. Each investment flow would be represented by a different faucet. How fast a firm is able to build an intangible resource—how fast the tub fills—depends on how much water comes out of the faucets and how long the faucets are left open. Intangible resources are built through continuous investments and experience over time.

Organizational learning also fosters the increase of intangible resources. Many intangible resources, such as IBM's expertise in cognitive computing, take a long time to build. IBM's

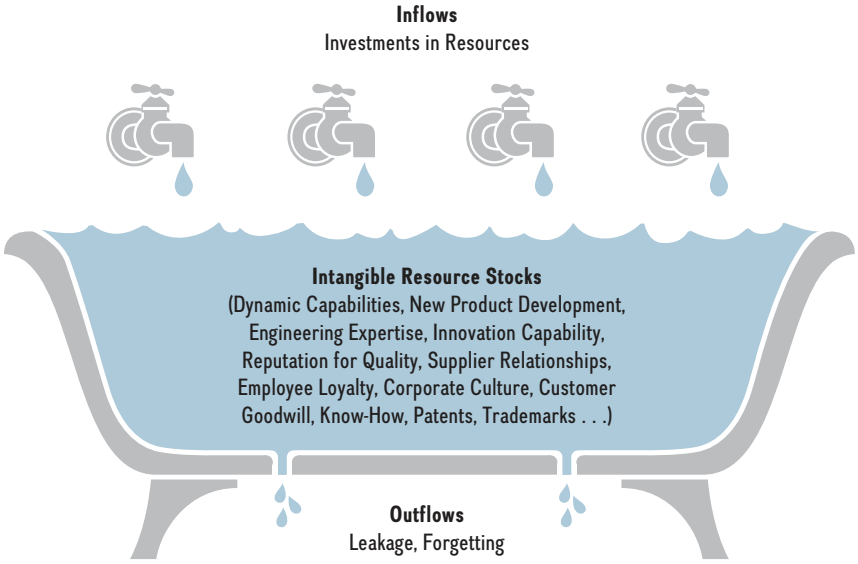


EXHIBIT 4.7

The Bathtub Metaphor: The Role of Inflows and Outflows in Building Stocks of Intangible Resources

Source: Figure based on metaphor used in I. Dierickx and K. Cool (1989), "Asset stock accumulation and sustainability of competitive advantage," *Management Science* 35: 1504–1513.

quest for cognitive computing began in 1997 after its Deep Blue computer (based on artificial intelligence) beat reigning chess champion Garry Kasparov. It has invested close to $25 billion to build a deep capability in cognitive computing with the goal to take advantage of business opportunities in big data and analytics. Its efforts were publicized when its Watson, a supercomputer capable of answering questions posed in natural language, went up against 74-time *Jeopardy!* quiz-show champion Ken Jennings and won. Watson has demonstrated its skill in many professional areas where deep domain expertise is needed for making decisions in more or less real time: a wealth manager making investments, a doctor working with a cancer patient, an attorney working on a complex case, or even a chef in a five-star restaurant creating a new recipe. Moreover, cognitive computer systems get better over time as they learn from experience.

How fast the bathtub fills, however, also depends on how much water leaks out of the tub. The outflows represent a reduction in the firm's intangible resource stocks. Resource leakage might occur through employee turnover, especially if key employees leave. Significant resource leakage can erode a firm's competitive advantage. A reduction in resource stocks can occur if a firm does not engage in a specific activity for some time and forgets how to do this activity well.

According to the dynamic capabilities perspective, the strategic leaders' task is to decide which investments to make over time (i.e., which faucets to open and how far) in order to best position the firm for competitive advantage in a changing environment. Moreover, strategic leaders also need to monitor the existing intangible resource stocks and their attrition rates due to leakage and forgetting. This perspective provides a dynamic understanding of capability development to allow a firm's continuous adaptation to and superior performance in a changing external environment.

LO 4-8

Apply a value chain analysis to understand which of the firm's activities in the process of transforming inputs into outputs generate differentiation and which drive costs.

4.5 The Value Chain and Strategic Activity Systems

THE VALUE CHAIN

The **value chain** describes the internal activities a firm engages in when transforming inputs into outputs.[48] Each activity the firm performs along the horizontal chain adds incremental value—raw materials and other inputs are transformed into components that are assembled into finished products or services for the end consumer. Each activity the firm performs along the value chain also adds incremental costs. A careful analysis of the value chain allows strategic leaders to obtain a more detailed and fine-grained understanding of how the firm's *economic value creation* ($V - C$) breaks down into distinct activities that help determine perceived value (V) and the costs (C) to create it. The value chain concept can be applied to basically any firm—those in manufacturing industries, high-tech, or service.

value chain The internal activities a firm engages in when transforming inputs into outputs; each activity adds incremental value.

DISTINCT ACTIVITIES. A firm's core competencies are deployed through its activities (see Exhibit 4.4). A firm's activities, therefore, are one of the key internal drivers of performance differences across firms. Activities are distinct actions that enable firms to add incremental value at each step by transforming inputs into goods and services. Managing a supply chain, running the company's IT system and websites, and providing customer support are all examples of distinct activities. Activities are narrower than functional areas such as marketing because each functional area comprises a set of distinct activities.

Five Guys' core competency is to offer a simple menu of fresh, high-quality burgers and fries and a great customer experience. To command a premium price for these products and

service, Five Guys needs to engage in number of distinct activities. Though it may seem simple, the ability to implement diverse sets of distinct activities every day across multiple geographic locations is no small feat.

The activities begin with sourcing ingredients. From the start, the Murrell sons have always selected only the best ingredients *without* knowing their cost. They viewed cost as a distraction from their ability to identify and select only the freshest, tastiest, highest-quality toppings and condiments. For example, the mayonnaise they selected after a blind taste test turned out to be the most expensive brand on the market. It also happened to be sold by a notoriously difficult vendor, but they stuck with him because he offered the best mayonnaise. In addition, sourcing locally is also important to the Five Guys brand. The 15 free toppings that Five Guys offers are locally sourced whenever possible. Likewise, the fresh-baked buns are local as well, in that they come from bakeries that Five Guys built near their stores so they could guarantee their freshness.

In most chain restaurants, fries are a simple side dish; for Five Guys, however, fries are a speciality made with great care. According to founder Jerry Murrell, while fries might look like the easiest item to make, they are actually the hardest. Unlike other fast food chains that dump dehydrated frozen fries into hot oil, Five Guys hand-cuts Idaho potatoes that are only grown north of the 42nd parallel and then soaks them in water to rinse off the starch. Soaking prevents the potatoes from absorbing the pure peanut oil as they are cooked, which gives them their unique Five Guys signature texture and taste.

Obsessing about every detail does not end at the supply chain. The Murrell family also obsesses over how to lay out each store, in particular the cooking area. Unlike other hamburger chains that use the same grill for their meat and buns, Five Guys uses a dedicated grill for its burgers and a separate toaster for buns. Although this approach requires additional equipment, and thus increases cost and operational complexity, it allows for perfectly grilled burgers and perfectly toasted buns. This all contributes to Five Guys' higher perceived value among customers, which then allows the firm to charge premium prices for the products using a simple cost-plus-margin formula.

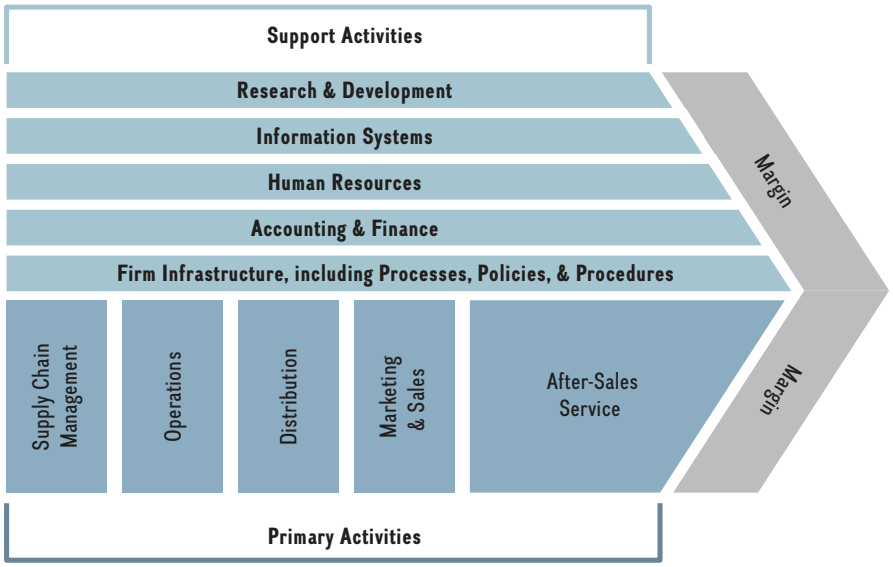
Each activity that Five Guys engages in is focused on delivering premium burgers and fries. How to maintain this effort if the company were to franchise weighed heavily on Jerry Murrell's mind. He worried that the distinct activities needed to deliver what Five Guys stood for could not be duplicated away from the five original Washington, D.C.-area stores. In particular, he worried that if the activities could not be copied exactly, then they could control neither the quality of the product nor the customer experience. This lack of control could then lead to a diminished brand and risk the loss of Five Guys' hard-earned reputation. It is not surprising, then, that Five Guys waited as long as it did to franchise. It felt it needed to develop the perfect system for its distinct activities before it could expand beyond the home area. When Five Guys opened its store in Richmond, Virginia, a mere 100 miles from its first store in Arlington, Jerry Murrell couldn't sleep for weeks, despite knowing he had a perfect system in place.[49] Today, this set of distinct activities needs to be repeated in each and every locale where Five Guys operates, which is now some 1,500 stores worldwide.

Exhibit 4.8 shows a generic value chain and how the transformation process from inputs to outputs comprises a set of distinct activities. When these activities generate value greater than the costs to create them, the firm obtains a profit margin—this assumes that the market price the firm is able to command also exceeds those costs.

A generic value chain needs to be modified to capture the activities of a specific business. Retail chain American Eagle Outfitters, for example, needs to identify suitable store locations, either build or rent stores, purchase goods and supplies, manage distribution and store inventories, operate stores both in the brick-and-mortar world and online, hire and

EXHIBIT 4.8

A Generic Value Chain: Primary and Support Activities



motivate a sales force, create payment and IT systems or partner with vendors, engage in promotions, and ensure after-sales services including returns. A maker of semiconductor chips such as Intel, on the other hand, needs to engage in R&D, design and engineer semiconductor chips and their production processes, purchase silicon and other ingredients, set up and staff chip fabrication plants, control quality and throughput, engage in marketing and sales, and provide after-sales customer support.

primary activities
Firm activities that add value directly by transforming inputs into outputs as the firm moves a product or service horizontally along the internal value chain.

PRIMARY AND SUPPORT ACTIVITIES. As Exhibit 4.8 illustrates, the value chain is divided into primary and support activities. The **primary activities** add value directly as the firm transforms inputs into outputs—from raw materials through production phases to sales and marketing and finally customer service, specifically

- Supply chain management.
- Operations.
- Distribution.
- Marketing and sales.
- After-sales service.

support activities
Firm activities that add value indirectly, but are necessary to sustain primary activities.

Other activities, called **support activities**, add value indirectly. These activities include

- Research and development (R&D).
- Information systems.
- Human resources.
- Accounting and finance.
- Firm infrastructure including processes, policies, and procedures.

To help a firm achieve a competitive advantage, each distinct activity performed needs to either add incremental value to the product or service offering or lower its relative cost. Discrete and specific firm activities are the basic units with which to understand competitive advantage because they are the drivers of the firm's relative costs and level of

differentiation the firm can provide to its customers. Although the resource-based view of the firm helps identify the integrated set of resources and capabilities that are the building blocks of core competencies, the value chain perspective enables strategic leaders to see how competitive advantage flows from the firm's distinct set of activities. This is because a firm's core competency is generally found in a network linking different but distinct activities, each contributing to the firm's strategic position as either low-cost leader or differentiator.

STRATEGIC ACTIVITY SYSTEMS

LO 4-9

Identify competitive advantage as residing in a network of distinct activities.

A **strategic activity system** conceives of a firm as a network of interconnected activities that can be the foundation of its competitive advantage.[50] A strategic activity system is socially complex and causally ambiguous. While one can easily observe one or more elements of a strategic activity system, the capabilities necessary to orchestrate and manage a network of distinct activities within the entire system cannot be so easily observed. As such, a strategic activity system is difficult to imitate in its entirety, and this difficulty enhances a firm's possibility of developing a sustainable competitive advantage based on a set of distinct but interconnected activities.

strategic activity system The conceptualization of a firm as a network of interconnected activities.

Let's assume Firm A's strategic activity system, which lays the foundation of its competitive advantage, consists of 25 interconnected activities. Attracted by Firm A's competitive advantage, competitor Firm B closely monitors this activity system and begins to copy it through direct imitation. Turns out, Firm B is very good at copying, managing to achieve a 90 percent accuracy rate. Will Firm B be able to negate Firm A's competitive advantage as a result? Far from it. Recall that Firm A's activity system comprises 25 interconnected activities. Because each of these activities is copied with just 90 percent accuracy, that means Firm B's ability to copy the *entire* system accurately is $0.9 \times 0.9 \times 0.9 \ldots$, repeated 25 times, or $0.9^{25} = 0.07$. In other words, Firm B will only be able to imitate Firm A with a total accuracy rate of 7 percent. What this example demonstrates is that using imitation as a path to competitive advantage is extremely difficult because quickly compounding probabilities render copying an entire activity system nearly impossible.

RESPONDING TO CHANGING ENVIRONMENTS. Strategic activity systems need to evolve over time if a firm is to sustain a competitive advantage. In contrast, failure to create a dynamic strategic fit generally leads to a competitive disadvantage, because the external environment changes and also because a firm's competitors get better in developing their own activity systems and capabilities. Strategic leaders, therefore, need to adapt their firm's activity system by upgrading value-creating activities in response to changing environments. To gain and sustain competitive advantage, strategic leaders may add new activities, remove activities that are no longer relevant, and upgrade activities that have become stale or somewhat obsolete. Each of these changes would require changes to the resources and capabilities involved, and as such, would reconfigure the entire strategic activity system.

Let's consider The Vanguard Group, one of the world's largest investment companies.[51] It serves individual investors, financial professionals, and institutional investors such as state retirement funds. Vanguard's mission is to help clients reach their financial goals by being their highest-value provider of investment products and services.[52] Since its founding in 1929, Vanguard has emphasized low-cost investing and quality service for its clients. Vanguard's average expense ratio (fees as a percentage of total net assets paid by investors) is generally the lowest in the industry.[53] The Vanguard Group also is a pioneer in passive index-fund investing. Rather than picking individual stocks and trading frequently as done in traditional money management, a mutual fund tracks the performance of an index (such as

the Standard & Poor's 500 or the Dow Jones 30), and discourages active trading and encourages long-term investing.

Despite this innovation in investing, to gain and sustain a competitive advantage, Vanguard's strategic activity system needed to evolve over time as the company grew and market conditions as well as competitors changed. Let's compare how The Vanguard Group's strategic activity developed over more than 20 years, from 1997 to 2019.

EVOLVING A SYSTEM OVER TIME. In 1997, The Vanguard Group had less than $500 million of assets under management. It pursued its mission of being the highest-value provider of investment products and services through its unique set of interconnected activities depicted in Exhibit 4.9. The six larger ovals depict Vanguard's strategic core activities: strict cost control, direct distribution, low expenses with savings passed on to clients, offering of a broad array of mutual funds, efficient investment management approach, and straightforward client communication and education. These six strategic themes were supported by clusters of tightly linked activities (smaller circles), further reinforcing the strategic activity network.

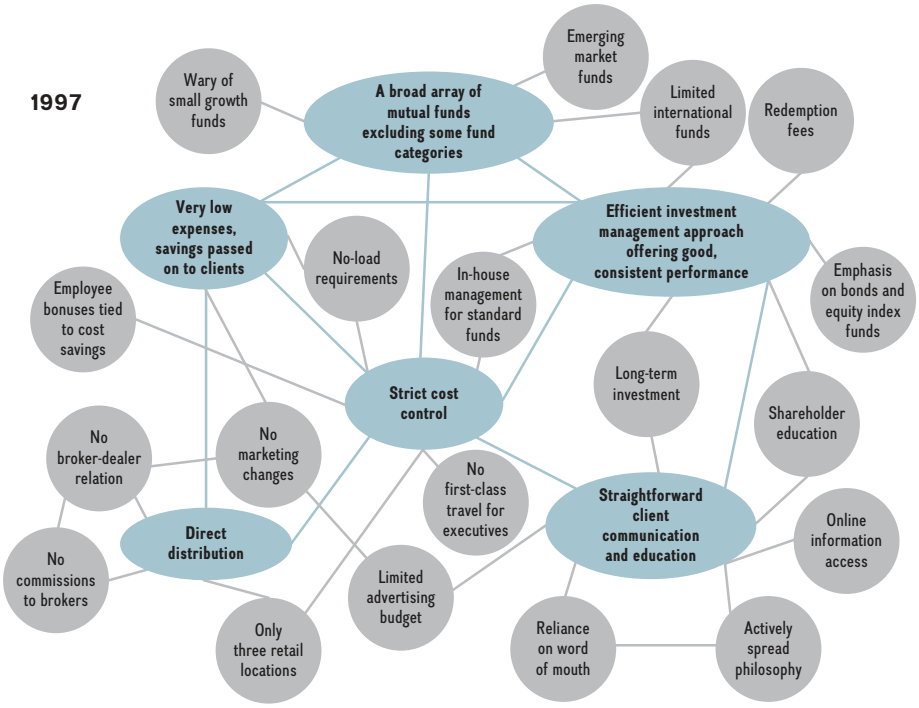
The needs of Vanguard's customers, however, have changed since 1997. Exhibit 4.10 shows Vanguard's strategic activity system in 2019. Some 20 years later, The Vanguard Group had grown more than 10 times in size, from a mere $500 billion (in 1997) to more than $5 trillion (in 2019) of assets under management.[54]

Again, the large ovals in Exhibit 4.10 symbolize Vanguard's strategic core activities that help it realize its strategic position as the low-cost leader in the industry. However, the system evolved over time as Vanguard's strategic leaders added a new core activity—customer segmentation—to the six core activities already in place in 1997 (still valid in 2019). Vanguard's managers put in place the customer-segmentation core activity, along with two new support activities, to address a new customer need that could not be met with its older configuration. Its 1997 activity system

EXHIBIT 4.9

The Vanguard Group's Activity System in 1997

Source: Adapted from N. Siggelkow (2002), "Evolution toward fit," *Administrative Science Quarterly* 47: 146.



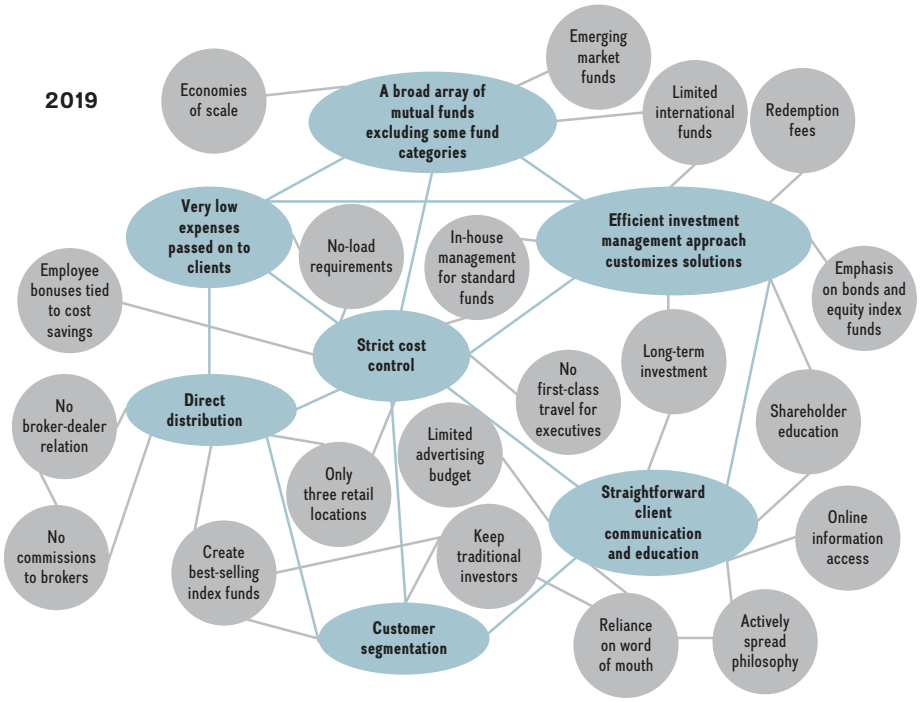


EXHIBIT 4.10

The Vanguard Group's Activity System in 2019

did not allow Vanguard to continue to provide quality service targeted at different customer segments at the lowest possible cost. The 2019 activity-system configuration allows Vanguard to customize its service offerings: It now separates its more traditional customers, who invest for the long term, from more active investors, who trade more often but are attracted to Vanguard funds by the firm's high performance and low cost.

The core activity Vanguard added to its strategic activity system was developed with great care, to ensure that it not only fit well with its existing core activities but also further reinforced its activity network. For example, the new activity of "Create best-selling index funds" also relies on direct distribution; it is consistent with and further reinforces Vanguard's low-cost leadership position. As a result of achieving its "best-selling" goal, Vanguard is now the world's second-largest investment-management company, just behind BlackRock, with over $6 trillion of assets under management. This allows Vanguard to benefit from economies of scale (e.g., cost savings accomplished through a larger number of customers served and a greater amount of assets managed), further driving down cost. In turn, by lowering its cost structure, Vanguard can offer more customized services without raising its overall cost. Despite increased customization, Vanguard still has one of the lowest expense ratios in the industry. Even in a changing environment, the firm continues to pursue its strategy of low-cost investing combined with quality service. If firms add activities that don't fit their strategic positioning (e.g., if Vanguard added local retail offices in shopping malls, thereby increasing operating costs), they create "strategic misfits" that are likely to erode a firm's competitive advantage.

The Vanguard Group's core competency of low-cost investing while providing quality service for its clients is accomplished through a unique set of interconnected primary and support activities including strict cost control, direct distribution, low expenses with savings passed on to clients, a broad array of mutual funds, an efficient investment management approach, and straightforward client communication and education.

In summary, a firm's competitive advantage can result from its unique network of activities. The important point, however, is that a static fit with the current environment is not sufficient; rather, a firm's unique network of activities must evolve over time to take advantage of new opportunities and mitigate emerging threats. Moreover, by using activity-based accounting (which first identifies distinct activities in an organization and then assigns costs to each activity based on estimates of all resources consumed) and by benchmarking the competition, one can identify key activities. In Chapter 5, we look more closely at how to measure and assess competitive advantage.

4.6 Implications for Strategic Leaders

We've now reached a significant point: We can combine external analysis from Chapter 3 with the internal analysis just introduced. Together the two allow you to begin formulating a strategy that matches a firm's internal resources and capabilities to the demands of the external industry environment. Ideally, strategic leaders want to leverage their firm's internal strengths to exploit external opportunities, while mitigating internal weaknesses and external threats. Both types of analysis in tandem allow managers to formulate a strategy that is tailored to their company, creating a unique fit between the company's internal resources and the external environment. A *strategic fit* increases the likelihood that a firm is able to gain a competitive advantage. If a firm achieves a *dynamic* strategic fit, it is likely to be able to *sustain* its advantage over time.

LO 4-10

Conduct a SWOT analysis to generate insights from external and internal analysis and derive strategic implications.

USING SWOT ANALYSIS TO GENERATE INSIGHTS FROM EXTERNAL AND INTERNAL ANALYSIS

We synthesize insights from an internal analysis of the company's *strengths* and *weaknesses* with those from an analysis of external *opportunities* and *threats* using the **SWOT analysis**. Internal strengths (S) and weaknesses (W) concern resources, capabilities, and competencies. Whether they are strengths or weaknesses can be determined by applying the VRIO framework. A resource is a weakness if it is not valuable. In this case, the resource does not allow the firm to exploit an external opportunity or offset an external threat. A resource, however, is a strength and a core competency if it is valuable, rare, costly to imitate, and the firm is organized to capture at least part of the economic value created.

SWOT analysis A framework that allows managers to synthesize insights obtained from an internal analysis of the company's strengths and weaknesses (S and W) with those from an analysis of external opportunities and threats (O and T) to derive strategic implications.

External opportunities (O) and threats (T) are in the firm's general environment and can be captured by PESTEL and Porter's five forces analyses (discussed in the previous chapter). An attractive industry as determined by Porter's five forces, for example, presents an external opportunity for firms not yet active in this industry. On the other hand, stricter regulation for financial institutions, for example, might represent an external threat to banks.

A SWOT analysis allows a strategic leader to evaluate a firm's current situation and future prospects by simultaneously considering internal and external factors. The SWOT analysis encourages strategic leaders to scan the internal and external environments, looking for any relevant factors that might affect the firm's current or future competitive advantage. The focus is on internal and external factors that can affect—in a positive or negative way—the firm's ability to gain and sustain a competitive advantage. To facilitate a SWOT analysis, managers use a set of strategic questions that link the firm's internal environment to its external environment, as shown in Exhibit 4.11, to derive strategic implications. In this SWOT matrix, the horizontal axis is divided into factors that are *external to the firm* (the focus of Chapter 3) and the vertical axis into factors that are *internal to the firm* (the focus of this chapter).

To conduct a SWOT analysis, strategic leaders start by gathering information to link internal factors (*strengths* and *weaknesses*) to external factors (*opportunities* and *threats*).

EXHIBIT 4.11

Strategic Questions within the SWOT Matrix

Internal to Firm	External to Firm: Opportunities	External to Firm: Threats
Strengths	*How can the firm use internal strengths to take advantage of external opportunities?*	*How can the firm use internal strengths to reduce the likelihood and impact of external threats?*
Weaknesses	*How can the firm overcome internal weaknesses that prevent it from taking advantage of external opportunities?*	*How can the firm overcome internal weaknesses that will make external threats a reality?*

Next, they use the SWOT matrix shown in Exhibit 4.11 to develop *strategic alternatives* for the firm. Developing strategic alternatives is a four-step (but not necessarily linear) process:

1. **Focus on the *Strengths-Opportunities* quadrant (top left)** to derive "offensive" alternatives by using an internal strength to exploit an external opportunity.
2. **Focus on the *Weaknesses-Threats* quadrant (bottom right)** to derive "defensive" alternatives by eliminating or minimizing an internal weakness to mitigate an external threat.
3. **Focus on the *Strengths-Threats* quadrant (top right)** to use an internal strength to minimize the effect of an external threat.
4. **Focus on the *Weaknesses-Opportunities* quadrant (bottom left)** to shore up an internal weakness to improve its ability to take advantage of an external opportunity.

Lastly, strategic leaders carefully evaluate the pros and cons of each strategic alternative to select one or more alternatives to implement. They need to carefully explain their decision rationale, including why they rejected the other strategic alternatives.

Although the SWOT analysis is a widely used management framework, a word of caution is in order. A problem with this framework is that a strength can also be a weakness and an opportunity can also simultaneously be a threat. Earlier in this chapter, we discussed the location of Google's headquarters in Silicon Valley and near several universities as a key resource for the firm. Most people would consider this a strength for the firm. However, California has a high cost of living and is routinely ranked among the worst of the states in terms of "ease of doing business." In addition, this area of California is along major earthquake fault lines and is more prone to natural disasters than many other parts of the country. So is the location a strength or a weakness? The answer is "it depends."

In a similar fashion, is global warming an opportunity or threat for car manufacturers? If governments enact higher gasoline taxes and make driving more expensive, it can be a threat. If, however, carmakers respond to government regulations by increased innovation through developing more fuel-efficient cars as well as low- or zero-emission engines such as hybrid or electric vehicles, it may create more demand for new cars and lead to higher sales.

To make the SWOT analysis an effective management tool, strategic leaders must first conduct a thorough external and internal analysis, as laid out in Chapters 3 and 4. This sequential process enables you to ground the analysis in rigorous theoretical frameworks before using SWOT to synthesize the results from the external and internal analyses in order to derive a set of strategic options.

You have now acquired the toolkit with which to conduct a complete strategic analysis of a firm's internal and external environments. In the next chapter, we consider various ways to assess and measure competitive advantage. That chapter will complete Part 1, on strategy analysis, in the AFI framework (see Exhibit 1.4).

CHAPTER CASE 4 Part II

TO STAND OUT IN A saturated burger market dominated by such giants as McDonald's and Burger King, Five Guys pursues a differentiation strategy that helps it to create a higher perceived value among its customers. One key differentiating feature is its product: Each Five Guys burger is made from never-frozen ground beef nestled atop a toasted, freshly baked bun. Each burger is also made to order and can be customized with any of 15 toppings—all of which can be added free of charge. Its fries are hand-cut and sourced from Idaho potatoes grown north of the 42nd parallel and cooked in pure peanut oil. Another key feature is its streamlined menu: burgers, fries, and hotdogs—no salads, no wraps, no desserts.

High(est) quality and consistency are extremely important to Five Guys. To ensure these standards are regularly met, it conducts two third-party audits in each of its 1,500 stores weekly to ensure the food is always fresh and the stores are always clean. The money that Five Guys does not spend on marketing is, instead, spent on its staff: Bonuses are awarded to the teams that score the highest on these audits. Each week a winning team receives a bonus of about $1,000, which is then split among the team's five or six members. About 200 teams make the cut, receiving the bonus. The way Five Guys motivates its staff also differentiates it from other competitors in the industry, who tend to just pay (minimum) hourly wages.

Although Five Guys' food tastes great and provides emotional comfort to many of its patrons, in recent years, especially with the increased concern about obesity and related health complications, Five Guys has landed on the list of U.S. chain restaurants that offer the most unhealthy meals. A standard bacon cheeseburger has close to 1,000 calories and a large order of fries has about 1,500. As a consequence, Five Guys food offerings have been criticized by watchdogs such as the Center for Science in the Public Interest. With the new focus on healthy eating, many restaurant chains such as Chipotle have come up with healthier options that include more low-calorie meals and fresh produce.

Five Guys' commitment to the delivery of quality foods using fresh ingredients, simple menus, and classic flavors has allowed it to thrive for more than 30 years in a highly competitive market, with 1,500 stores as of 2019 and another 1,500 locations in development. With all the regional franchises in the United States sold out, the company is focusing on international expansion.[55]

Questions

1. Why is Five Guys so successful? Describe Five Guys' core competency, explain how the company built it, and why it is essential to its success.
2. Five Guys' success led to imitation attempts by more recent entries in the fast-casual "better burger" segment of the restaurant industry such as BurgerFi, Shake Shack, and Smashburger. Do you think these new entrants are competitive threats to Five Guys? Why, or why not? If you think they are competitive threats, what should Five Guys do about it, if anything? Explain.
3. Do you think a trend toward more healthy eating is a threat to Five Guys? If so, what could the company do about it? For example, should the company change its menu to include healthier choices, or should it continue with what made Five Guys so successful? Why, or why not? Use Exhibit 4.11 to discuss your responses.
4. Do you think Five Guys will be as successful outside the United States as it has been in its home market? Why or why not?

mySTRATEGY

Looking Inside Yourself: What Is My Competitive Advantage?

We encourage you to apply what you have learned about competitive advantage to your career. Spend a few minutes looking at yourself to discover *your own* competitive advantage. If you have previous work experience, these questions should be from a work environment perspective. If you do not have any work experience yet, use these questions to evaluate a new workplace or as strategies for presenting yourself to a potential employer.

1. Write down your own strengths and weaknesses. What sort of organization will permit you to really leverage your strengths and keep you highly engaged in your work (person–organization fit)? Do some of your weaknesses need to be mitigated through additional training or mentoring from a more seasoned professional?
2. Personal capabilities also need to be evaluated over time. Are your strengths and weaknesses different today from what they were five years ago? What are you doing to make sure your capabilities are dynamic?
3. Are some of your strengths valuable, rare, and costly to imitate? How can you organize your work to help capture the value of your key strengths (or mitigate your weaknesses)? Are your strengths specific to one or a few employers, or are they more generally valuable in the marketplace? In general, should you be making investments in your human capital in terms of company-specific or market-general skills?
4. As an employee, how could you persuade your boss that you could be a vital source of sustainable competitive advantage? What evidence could you provide to make such an argument?

TAKE-AWAY CONCEPTS

This chapter demonstrated various approaches to analyzing the firm's *internal environment,* as summarized by the following learning objectives and related take-away concepts.

LO 4-1 / Explain how shifting from an external to internal analysis of a firm can reveal why and how internal firm differences are the root of competitive advantage.

- Since companies that compete in the same industry face similar external opportunities and threats, the source of the observable performance difference must be found inside the firm.
- Looking inside a firm to analyze its resources, capabilities, and core competencies allows strategic leaders to understand the firm's strengths and weaknesses.
- Linking the insights from a firm's external analysis to the ones from an internal analysis allows managers to determine their strategic options.
- Strategic leaders want to leverage their firms' internal strengths to exploit external opportunities and to mitigate internal weaknesses and external threats.

LO 4-2 / Differentiate among a firm's core competencies, resources, capabilities, and activities.

- *Core competencies* are unique, deeply embedded, firm-specific strengths that allow companies to differentiate their products and services and thus create more value for customers than their rivals, or offer products and services of acceptable value at lower cost.
- *Resources* are any assets that a company can draw on when crafting and executing strategy.
- *Capabilities* are the organizational and managerial skills necessary to orchestrate a diverse set of resources to deploy them strategically.

- *Activities* are distinct and fine-grained business processes that enable firms to add incremental value by transforming inputs into goods and services.

LO 4-3 / Compare and contrast tangible and intangible resources.

- *Tangible resources* have physical attributes and are visible.
- *Intangible resources* have no physical attributes and are invisible.
- Competitive advantage is more likely to be based on intangible resources.

LO 4-4 / Evaluate the two critical assumptions about the nature of resources in the resource-based view.

- The first critical assumption—*resource heterogeneity*—is that bundles of resources, capabilities, and competencies differ across firms. The resource bundles of firms competing in the same industry (or even the same strategic group) are unique to some extent and thus differ from one another.
- The second critical assumption—*resource immobility*—is that resources tend to be "sticky" and don't move easily from firm to firm. Because of that stickiness, the resource differences that exist between firms are difficult to replicate and, therefore, can last for a long time.

LO 4-5 / Apply the VRIO framework to assess the competitive implications of a firm's resources.

- For a firm's resource to be the basis of a competitive advantage, it must have VRIO attributes: *valuable (V), rare (R),* and *costly to imitate (I).* The firm must also be able to *organize (O) in order to capture the value of the resource.*
- A resource is valuable (V) if it allows the firm to take advantage of an external opportunity and/or neutralize an external threat. A valuable resource enables a firm to increase its economic value creation ($V - C$).
- A resource is rare (R) if the number of firms that possess it is less than the number of firms it would require to reach a state of perfect competition.
- A resource is costly to imitate (I) if firms that do not possess the resource are unable to develop or buy the resource at a comparable cost.
- The firm is organized (O) to capture the value of the resource if it has an effective organizational structure, processes, and systems in place to fully exploit the competitive potential.

LO 4-6 / Evaluate different conditions that allow a firm to sustain a competitive advantage.

- Several conditions make it costly for competitors to imitate the resources, capabilities, or competencies that underlie a firm's competitive advantage: (1) *better expectations of future resource value,* (2) *path dependence,* (3) *causal ambiguity,* (4) *social complexity,* and (5) *intellectual property (IP) protection*.
- These *barriers to imitation* are isolating mechanisms because they prevent rivals from competing away the advantage a firm may enjoy.

LO 4-7 / Outline how dynamic capabilities can enable a firm to sustain a competitive advantage.

- To sustain a competitive advantage, any fit between a firm's internal strengths and the external environment must be dynamic.
- *Dynamic capabilities* allow a firm to create, deploy, modify, reconfigure, or upgrade its resource base to gain and sustain competitive advantage in a constantly changing environment.

LO 4-8 / Apply a value chain analysis to understand which of the firm's activities in the process of transforming inputs into outputs generate differentiation and which drive costs.

- The value chain describes the internal activities a firm engages in when transforming inputs into outputs.
- Each activity the firm performs along the horizontal chain adds incremental value and incremental costs.
- A careful analysis of the value chain allows managers to obtain a more detailed and fine-grained understanding of how the firm's economic value creation breaks down into a distinct set of activities that helps determine perceived value and the costs to create it.
- When a firm's set of distinct activities is able to generate value greater than the costs to create it, the firm obtains a profit margin (assuming the market price the firm is able to command exceeds the costs of value creation).

LO 4-9 / Identify competitive advantage as residing in a network of distinct activities.

- A strategic activity system conceives of a firm as a network of interconnected firm activities.
- A network of primary and supporting firm activities can create a strategic fit that can lead to a competitive advantage.
- To sustain a competitive advantage, firms need to hone, fine-tune, and upgrade their strategic activity systems over time, in response to changes in the external environment and to moves of competitors.

LO 4-10 / Conduct a SWOT analysis to generate insights from external and internal analysis and derive strategic implications.

- Formulating a strategy that increases the chances of gaining and sustaining a competitive advantage is based on synthesizing insights obtained from an internal analysis of the company's strengths (S) and weaknesses (W) with those from an analysis of external opportunities (O) and threats (T).
- The strategic implications of a SWOT analysis should help the firm to leverage its internal strengths to exploit external opportunities, while mitigating internal weaknesses and external threats.

KEY TERMS

Activities *(p. 124)*
Capabilities *(p. 124)*
Causal ambiguity *(p. 135)*
Core competencies *(p. 120)*
Core rigidity *(p. 138)*
Costly-to-imitate resource *(p. 129)*
Dynamic capabilities *(p. 138)*
Dynamic capabilities perspective *(p. 138)*
Intangible resources *(p. 126)*
Intellectual property (IP) protection *(p. 136)*
Isolating mechanisms *(p. 132)*
Organized to capture value *(p. 131)*
Path dependence *(p. 134)*
Primary activities *(p. 142)*
Rare resource *(p. 129)*
Resource *(p. 127)*
Resource-based view *(p. 126)*
Resource flows *(p. 139)*
Resource heterogeneity *(p. 127)*
Resource immobility *(p. 127)*
Resource stocks *(p. 139)*
Resources *(p. 124)*
Social complexity *(p. 136)*
Strategic activity system *(p. 143)*
Support activities *(p. 142)*
SWOT analysis *(p. 146)*
Tangible resources *(p. 126)*
Valuable resource *(p. 128)*
Value chain *(p. 140)*
VRIO framework *(p. 128)*

DISCUSSION QUESTIONS

1. Why is it important to study the internal resources, capabilities, and activities of firms? What insights can be gained?
2. Conduct a value chain analysis for Five Guys. What are its primary activities? What are its support activities? Identify the activities that add the most value for the customer. Why? Which activities help Five Guys to build its differentiated brand? Why?
3. The resource-based view of the firm identifies four criteria that managers can use to evaluate whether particular resources and capabilities are core competencies and can, therefore, provide a basis for sustainable competitive advantage. Are these measures independent or interdependent? Explain. If (some of) the measures are interdependent, what implications does that fact have for managers wanting to create and sustain a competitive advantage?

ENDNOTES

1. Raz, G. (2017, Jun. 5), "How I built this," *NPR,* www.npr.org/2017/08/07/531097687/five-guys-jerry-murrell.

2. This ChapterCase was prepared by Frank T. Rothaermel with Laura Zhang, who provided superb research assistance. Sources: Five Guys Media Fact Sheet (2018), www.fiveguys.com/-/media/Public-Site/Files/Media-Fact-Sheet-2018.ashx?la=en; Raz, G. (2017, Jun. 5), "How I built this," *NPR,* www.npr.org/2017/08/07/531097687/five-guys-jerry-murrell; Olmsted, L. (2013, Oct. 10), "Great American bites: Why burger lovers flock to Five Guys," *USA Today*; Egan, T. (2013, Mar. 21), "Burgers, fries and lies," *The New York Times*; Burke, M. (2012, Jul. 18), "Five Guys Burgers: America's fastest growing restaurant chain," *Forbes*; Welch, L. (2010, Apr. 1), "How I did it: Jerry Murrell, Five Guys Burgers and Fries," *Inc. Magazine.*

3. The discussion of Five Guys here and elsewhere in the chapter is based on: Five Guys Media Fact Sheet (2018), www.fiveguys.com/-/media/Public-Site/Files/Media-Fact-Sheet-2018.ashx?la=en; Raz, G. (2017, Jun. 5), "How I built this," *NPR,* www.npr.org/2017/08/07/531097687/five-guys-jerry-murrell; Olmsted, L. (2013, Oct. 10), "Great American bites: Why burger lovers flock to Five Guys," *USA Today*; Egan, T. (2013, Mar. 21), "Burgers, fries and lies," *The New York Times*; Burke, M. (2012, Jul. 18), "Five Guys Burgers: America's fastest growing restaurant chain," *Forbes*; Welch, L. (2010, Apr. 1), "How I did it: Jerry Murrell, Five Guys Burgers and Fries," *Inc. Magazine.*

4. Prahalad, C.K., and G. Hamel (1990, May–June), "The core competence of the corporation," *Harvard Business Review*.

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7. "People aren't hearing all the music," *Beats By Dre,* www.beatsbydre.com/aboutus.

8. This Strategy Highlight as well as the discussion of Dr. Dre and Beats Electronics throughout this chapter is based on: www.beatsbydre.com; Hufford, A., and H. Karp (2017, Jan. 23), "Sprint to buy 33% of Jay-Z's Tidal music service," *The Wall Street Journal;* Eels, J. (2014, Nov. 5), "Dr. Dre and Jimmy Iovine's school for innovation," *The Wall Street Journal*; Brownlee, M. (2014, Aug. 30), "The truth about Beats by Dre!" *YouTube*, www.youtube.com/watch?v=ZsxQxS0AdBY; "The sound of music," *The Economist* (2014, Aug. 24); Karp, H. (2014, Jun. 6), "Apple's new beat: What Steve Jobs and Dr. Dre have in common," *The Wall Street Journal*; Cohen, M. (2014, May 29), "Apple buys Beats to regain music mojo," *The Wall Street Journal*; "Can you feel the Beats?" *The Economist* (2014, May 28); Karp, H. (2014, May 9), "Apple-Beats Electronics: The disrupter is disrupted," *The Wall Street Journal*; Karp, H., and D. Wakabayashi (2014, May 9), "Dr. Dre, Jimmy Iovine would both join Apple in Beats deal," *The Wall Street Journal*; "Beats nicked," *The Economist* (2014, May 13); and "The legacy of Napster," *The Economist* (2013, Sep. 13).

9. This discussion is based on: Amit, R., and P.J.H. Schoemaker (1993), "Strategic assets and organizational rent," *Strategic Management Journal* 14: 33–46; Peteraf, M. (1993), "The cornerstones of competitive advantage," *Strategic Management Journal* 14: 179–191; Barney, J. (1991), "Firm resources and sustained competitive advantage," *Journal of Management* 17: 99–120; and Wernerfelt, B. (1984), "A resource-based view of the firm," *Strategic Management Journal* 5: 171–180.

10. Google is working to outdo the existing Googlepex headquarters in Mountain View. The company is building a new 3.4 million-square-foot campus across four pieces of land near the edge of San Francisco Bay. The futuristic site, to be completed in 2020, will be covered by canopy structures that can be rearranged in a flexible manner. See: "Silicon Valley headquarters: Googledome, or temple of doom?" *The Economist* (2015, Mar. 7).

11. Tangible resources are listed under "Property and Equipment" in the Consolidated Balance Sheet, see Alphabet / Google Annual Report, 2018, https://abc.xyz/investor/index.html.

12. "Top 100 most valuable global brands 2018," report by Millward Brown, WPP, www.millwardbrown.com/brandz/rankings-and-reports/top-global-brands/2018.

13. For a discussion on the benefits of being located in a technology cluster, see: Rothaermel, F.T., and D. Ku (2008), "Intercluster innovation differentials: The role of research universities," *IEEE Transactions on Engineering Management* 55: 9–22; and Saxenian, A. L. (1994), *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge, MA: Harvard University Press).

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15. "Top 100 most valuable global brands 2018," report by Millward Brown, WPP, www.millwardbrown.com/brandz/rankings-and-reports/top-global-brands/2018.

16. This discussion is based on: Amit, R., and P.J.H. Schoemaker (1993), "Strategic assets and organizational rent," *Strategic Management Journal* 14: 33–46; Barney, J. (1991), "Firm resources and sustained competitive advantage," *Journal of Management* 17: 99–120; Peteraf, M. (1993), "The cornerstones of competitive advantage," *Strategic Management Journal* 14: 179–191; and Wernerfelt, B. (1984), "A resource-based view of the firm," *Strategic Management Journal* 5: 171–180.

17. This discussion is based on: Barney, J., and W. Hesterly (2014), *Strategic Management and Competitive Advantage,* 5th ed. (Upper Saddle River, NJ: Pearson Prentice Hall); Amit, R., and P.J.H. Schoemaker (1993), "Strategic assets and organizational rent," *Strategic Management Journal* 14: 33–46; Barney, J. (1991), "Firm resources and sustained competitive advantage," *Journal of Management* 17: 99–120; Peteraf, M. (1993), "The cornerstones of competitive advantage," *Strategic Management Journal* 14: 179–191; and Wernerfelt, B. (1984), "A resource-based view of the firm," *Strategic Management Journal* 5: 171–180.

18. Barney, J., and W. Hesterly (2014), *Strategic Management and Competitive Advantage,* 5th ed. (Upper Saddle River, NJ: Pearson Prentice Hall); and Barney, J. (1991), "Firm resources and sustained competitive advantage," *Journal of Management* 17: 99–120.

19. Raz, G. (2017, Jun. 5), "How I built this," *NPR*, www.npr.org/2017/08/07/531097687/five-guys-jerry-murrell

20. Crocs' share price hit an all-time high of $74.75 on October 31, 2007. By November 20, 2008, the share price had fallen to $0.94.

21. For a detailed history of the creation and growth of Amazon.com, see: Stone, B. (2013), *The Everything Store: Jeff Bezos and the Age of Amazon* (New York: Little, Brown and Co.).

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