

## CHAPTER

## 5

# Competitive Advantage, Firm Performance, and Business Models

## Chapter Outline

- 5.1** Competitive Advantage and Firm Performance
  - Accounting Profitability*
  - Shareholder Value Creation*
  - Economic Value Creation*
  - The Balanced Scorecard*
  - The Triple Bottom Line*
- 5.2** Business Models: Putting Strategy into Action
  - The Why, What, Who, and How of Business Models Framework*
  - Popular Business Models*
  - Dynamic Nature of Business Models*
- 5.3** Implications for Strategic Leaders

## Learning Objectives

**After studying this chapter, you should be able to:**

- LO 5-1** Conduct a firm profitability analysis using accounting data to assess and evaluate competitive advantage.
- LO 5-2** Apply shareholder value creation to assess and evaluate competitive advantage.
- LO 5-3** Explain economic value creation and different sources of competitive advantage.
- LO 5-4** Apply a balanced scorecard to assess and evaluate competitive advantage.
- LO 5-5** Apply a triple bottom line to assess and evaluate competitive advantage.
- LO 5-6** Use the why, what, who, and how of business models framework to put strategy into action.

## CHAPTERCASE 5 Part I

## The Quest for Competitive Advantage: Apple vs. Microsoft

**BY THE FALL OF 2018**, Apple was the first company ever to be valued at more than \$1 trillion. However, by the spring of 2019, its market capitalization had fallen by more than 21 percent (approximately \$230 billion). From 2009 to 2019, Microsoft's market cap had risen from a low of \$145 billion to over \$880 billion—an increase of almost 500 percent. How did this happen?

To understand the ups and downs of firm performance and competitive advantage, it is helpful to look at a longer time horizon. Apple and Microsoft have been fierce rivals since they were both founded in the mid-1970s. Although Apple has dominated the market in the decade since the introduction of the iPhone in 2007, in the early decades of the PC revolution, Microsoft was the undisputed leader. It set the standard in the world of personal

computers with its Windows operating system, which about 90 percent of all PCs run. Microsoft's business model was to create a large base of users for this operating system and then to make money by selling with it application software such as the ubiquitous Office suite (containing Word, Excel, PowerPoint, Outlook, and other software programs).

Microsoft replicated this hugely successful business model with its corporate customers. Once servers became ubiquitous in corporations, Microsoft offered IT departments e-mail systems, databases, and other business applications that tightly integrated with Windows. As a result, 80 percent of Microsoft's total revenues were tied either directly or indirectly to its Windows franchise. Microsoft's strategy of offering bundled discounted software with its operating system, which became an industry standard, allowed it to create a strong strategic position and to extract high profits for many years. It also allowed Microsoft to overtake IBM in 2000 as

the most valuable tech company globally with \$510 billion in market capitalization.

In contrast, in 1997, Apple was near bankruptcy and struggling to survive with less than 5 percent market share in the PC market. But in the fall of 2001, when it introduced the iPod, its portable digital music player, Apple's revitalization took off. Eighteen months later, its rise would continue with the opening of its online store, iTunes, which was then quickly followed by the opening of its first brick-and-mortar retail stores; today, these stores earn the highest sales per square foot of any retail outlet, including luxury stores.

Apple didn't stop there. In 2007, the company revolutionized the smartphone market with the introduction of the iPhone. Just three years later, Apple introduced the iPad, reshaping the publishing and media industries. Further, for each of its iPod, iPhone, and iPad lines of business, Apple followed up with incremental product innovations extending each product category. By the fall of 2012, Apple had become the most valuable company in the world with \$620 billion market capitalization.

In 2015, the high-tech company introduced Apple Watch, a wearable computer that is fully integrated with its iOS operating system, running basically all the apps available for the iPhone. Not to be stopped, in 2017, Apple introduced its 10th anniversary iPhone to great fanfare. It had a curved screen and was priced at about \$1,000. The sticker price increased to \$1,100 when, in September 2018, Apple introduced the iPhone XS Max. In looking for the next big thing, in 2019, Apple entered the entertainment industry with Apple TV, among other new strategic initiatives in mobile payment services and online gaming.

The comparison of Microsoft and Apple over time shows that competitive advantage is transitory. Given the rough-and-tumble competition combined with relentless technological progress and innovation, it is hard to gain a competitive advantage in the first place, and it is even harder to sustain it.<sup>1</sup>

**Part II of this ChapterCase appears in Section 5.3.**

NOTE: A five-year financial ratio review related to this ChapterCase is available in Connect.



Wahavi/Alamy Stock Photo



 **GAINING AND SUSTAINING** competitive advantage is the defining goal of strategic management. Competitive advantage leads to superior firm performance.

To explain differences in firm performance and to derive strategic implications—including new strategic initiatives—we must understand how to measure and assess competitive advantage. We devote this chapter to studying how to measure and assess firm performance. In particular, we introduce three frameworks to capture the multifaceted nature of competitive advantage. The three traditional frameworks to measure and assess firm performance are

- Accounting profitability.
- Shareholder value creation.
- Economic value creation.

We then will introduce two integrative frameworks, combining quantitative data with qualitative assessments:

- The balanced scorecard.
- The triple bottom line.

Next, we take a closer look at *business models* to understand more deeply how firms put their strategy into action to make money. We conclude the chapter with practical *Implications for Strategic Leaders*.

## 5.1 Competitive Advantage and Firm Performance

It is easy to compare two firms and identify the better performer as the one with competitive advantage. But such a simple comparison has its limitations. How does it help us to understand how and why a firm has competitive advantage? How can that advantage be measured? And how can we understand it in the context of an entire industry and the ever-changing external environment? What strategic implications for managerial actions can we derive from our assessments? These questions may seem simple, but their answers are not. Strategic management researchers have debated them intensely for the past few decades.<sup>2</sup>

To address these key questions, we will develop a *multidimensional perspective* for assessing competitive advantage. Let's begin by focusing on the three standard performance dimensions:<sup>3</sup>

1. Accounting profitability
2. Shareholder value
3. Economic value

These three performance dimensions generally correlate, particularly over time. Accounting profitability and economic value creation tend to be reflected in the firm's stock price, which in part determines the stock's market valuation.

### LO 5-1

Conduct a firm profitability analysis using accounting data to assess and evaluate competitive advantage.

### ACCOUNTING PROFITABILITY

As we discussed in Chapter 1, *strategy* is a set of goal-directed actions a firm takes to gain and sustain competitive advantage. Using accounting data to assess competitive advantage and firm performance is standard managerial practice. When assessing competitive advantage by measuring accounting profitability, we use financial data and ratios derived from publicly available accounting data such as income statements and balance sheets.<sup>4</sup> Since



*competitive advantage* is defined as superior performance *relative* to other competitors in the same industry or to the industry average, a firm's strategic leaders must be able to accomplish two critical tasks:

1. Assess the performance of their firm accurately.
2. Compare and benchmark their firm's performance to other competitors in the same industry or against the industry average.

Standardized financial metrics found in publicly available income statements and balance sheets allow a firm to fulfill both these tasks. By law, public companies are required to release these data in compliance with generally accepted accounting principles (GAAP) set by the Financial Accounting Standards Board (FASB), and as audited by certified public accountants. Publicly traded firms are required to file a Form 10-K (or 10-K report) annually with the U.S. Securities and Exchange Commission (SEC), a federal regulatory agency. The 10-K reports are the primary source of companies' accounting data available to the public. The fairly stringent requirements applied to accounting data that are audited and released publicly enhance the data's usefulness for comparative analysis.

Accounting data enable us to conduct direct performance comparisons between different companies. Some of the profitability ratios most commonly used in strategic management are *return on invested capital (ROIC)*, *return on equity (ROE)*, *return on assets (ROA)*, and *return on revenue (ROR)*. In the "How to Conduct a Case Analysis" module in Part 4, you will find a complete presentation of accounting measures and financial ratios, how they are calculated, and a brief description of their strategic characteristics.

One of the most commonly used metrics in assessing firm financial performance is *return on invested capital (ROIC)*, where  $ROIC = \text{Net profits} / \text{Invested capital}$ .<sup>5</sup> ROIC is a popular metric because it is a good proxy for *firm profitability*. In particular, the ratio measures how effectively a company uses its *total invested capital*, which consists of two components: (1) *shareholders' equity* through the selling of shares to the public, and (2) *interest-bearing debt* through borrowing from financial institutions and bondholders.

As a rule of thumb, if a firm's ROIC is greater than its cost of capital, it generates value; if it is less than the cost of capital, the firm destroys value. The *cost of capital* represents a firm's cost of financing operations from both equity through issuing stock and debt through issuing bonds. To be more precise and to be able to derive strategic implications, however, strategic leaders must compare their ROIC to that of other competitors and the industry average.

### RETURN ON INVESTED CAPITAL (ROIC): APPLE VS. MICROSOFT.

To demonstrate the usefulness of accounting data in assessing competitive advantage and to derive strategic implications, let's revisit the comparison between Apple and Microsoft that we began in ChapterCase 5 and investigate the sources of performance differences in more detail.<sup>6</sup> Exhibit 5.1 shows the ROIC for Apple and Microsoft as of fiscal year 2018.<sup>7</sup> It further breaks down ROIC into its constituent components. This provides important clues for managers on which areas to focus when attempting to improve firm performance relative to their competitors.

Apple's ROIC is 17.3 percent, which is 8.5 percentage points higher than Microsoft's (8.8 percent). This means that for every \$1.00 invested in Apple, the company returned \$1.17, while for every \$1.00 invested in Microsoft, the company returned \$1.09. Since Apple was almost twice as efficient as Microsoft at generating



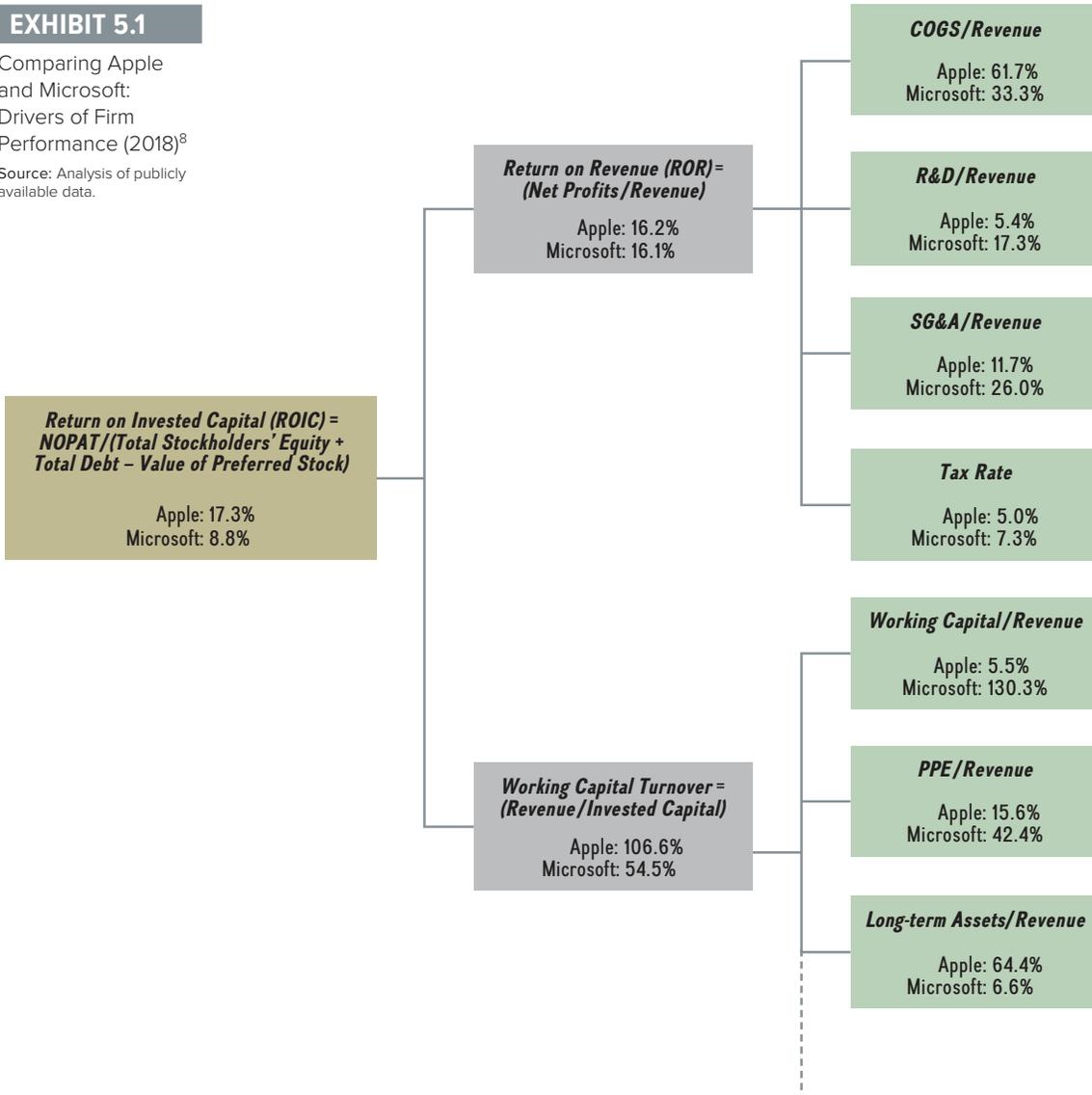
Tim Cook, Apple CEO.  
John Gress Media Inc/  
Shutterstock



Satya Nadella, Microsoft CEO.  
Sean Gallup/Staff/Getty  
Images

**EXHIBIT 5.1**

Comparing Apple and Microsoft: Drivers of Firm Performance (2018)<sup>8</sup>  
 Source: Analysis of publicly available data.



a ROIC, Apple had a clear competitive advantage over Microsoft. Although this is an important piece of information, managers need to know the underlying factors driving differences in firm profitability. Why is the ROIC for these two companies different?

Much like detectives, managers look for clues to solve that mystery: They break down ROIC into its constituents (as shown in Exhibit 5.1)—*return on revenue* and *working capital turnover*—to discover the underlying drivers of the marked difference in firm profitability.

**Breaking down Return on Revenue (ROR).** We start with the first component of ROIC: *return on revenue (ROR)*. ROR indicates how much of the firm’s sales is converted into profits. Apple’s ROR was 16.2 percent, while Microsoft’s ROR was 16.1 percent. For every \$100 in revenue, Apple earns \$16.20 in profit, while Microsoft earns \$16.10 in profit.



On this metric, Apple and Microsoft do not differ much. Keep in mind, however, that Apple's 2018 revenues were \$262 billion, while Microsoft's were \$118 billion. Thus, Apple is more than 2.2 times larger than Microsoft in terms of annual sales. As we investigate the differences in ROIC further, we will discover that Microsoft has a higher cost structure than Apple, and that Apple is able to charge a much higher margin for its products and services than Microsoft.

To delve deeper into the drivers of this difference, we need to break down ROR into three additional financial ratios:

- Cost of goods sold (COGS) / Revenue.
- Research & development (R&D) / Revenue.
- Selling, general, & administrative (SG&A) / Revenue.

**COGS / Revenue.** The first of these three ratios, *COGS / Revenue*, indicates how efficiently a company can produce a good. On this metric, Microsoft turns out to be much more efficient than Apple, with a difference of 28.4 percentage points (see Exhibit 5.1). This is because Microsoft's vast majority of revenues comes from software and online cloud services, with little cost attached to such digitally delivered products and services. In contrast, Apple's revenues were mostly from mobile devices, combining both hardware and software. In particular, the iPhone made up approximately 60 percent (or over \$157 billion) of Apple's total revenues in 2018.

**R&D / Revenue** Even though Apple is more than two times as large as Microsoft in terms of revenues, it spends much less on research and development or on marketing and sales. Both of these help drive down Apple's cost structure. In particular, the next ratio, *R&D / Revenue*, indicates how much of each dollar that the firm earns in sales is invested to conduct research and development. A higher percentage is generally an indicator of a stronger focus on innovation to improve current products and services, and to come up with new ones.

Interestingly, Apple is much less R&D intensive than Microsoft. Apple spent 5.4 percent on R&D for every dollar of revenue, while Microsoft spent more than three times as much (17.3 percent R&D). Even considering the fact that Microsoft's revenues were \$118 billion versus Apple's \$262 billion, Microsoft spent much more on R&D in absolute dollars than Apple (Microsoft: \$20 billion; Apple: \$14 billion). For every \$100 earned in revenues Microsoft spent \$17.30 on R&D, while Apple only spent \$5.40. For more than a decade now, Microsoft generally spends the most on R&D in absolute terms among all technology firms.

In contrast, Apple has spent much less on R&D than have other firms in the high-tech industry, in both absolute and relative terms. Apple's co-founder and longtime CEO, the late Steve Jobs, defined Apple's R&D philosophy as follows: "Innovation has nothing to do with how many R&D dollars you have. When Apple came up with the Mac, IBM was spending at least 100 times more on R&D. It's not about money. It's about the people you have, how you're led, and how much you get it."<sup>9</sup>

**SG&A / Revenue.** The third ratio in breaking down ROR, *SG&A / Revenue*, indicates how much of each dollar that the firm earns in sales is invested in sales, general, and administrative (SG&A) expenses. Generally, this ratio is an indicator of the firm's focus on marketing and sales to promote its products and services. For every \$100 earned in revenues Microsoft spent \$26.00 on sales and marketing, while Apple spent \$11.70. Even though Microsoft SG&A intensity was more than twice as high as Apple, given the significant gap in revenues (Microsoft: \$118 billion; Apple: \$262 billion), each company spent almost \$31 billion in marketing and sales, much more than either company spent on R&D.





Microsoft is spending a significant amount to rebuild its brand, especially on CEO Satya Nadella's strategic initiative of "mobile first, cloud first."<sup>10</sup> This focus on cloud computing on mobile devices marks a significant departure from the Windows-centric strategy for PCs of Nadella's predecessor, Steve Ballmer. Yet, by 2017, the Windows and Office combination still generated about 40 percent of Microsoft's total revenues and 75 percent of its profits. Microsoft is working hard to transition the Office business from the old business model of standalone software licenses (\$150 for Office Home & Student) to repeat business via cloud-based subscriptions such as Office 365 Home & Student (which is \$70 per year).

We also note, for completeness, that Apple's effective tax rate in 2018 was 5.0 percent (with a net income of \$59.4 billion), while that of Microsoft was 7.3 percent (with a net income of \$33.5 billion).<sup>11</sup>

**Breaking Down Working Capital Turnover.** The second component of ROIC is *Working Capital Turnover* (see Exhibit 5.1), which is a measure of how effectively capital is being used to generate revenue. In more general terms, working capital entails the amount of money a company can deploy in the short term, calculated as *current assets* minus *current liabilities*. This is where Apple outperforms Microsoft by a fairly wide margin (106.6 percent vs. 54.5 percent, respectively). For every dollar that Apple puts to work, it realizes \$106.60 of sales, whereas Microsoft realizes \$54.50 of sales—so a difference of \$52.10. This implies that Apple is almost twice as efficient (96 percent) as Microsoft in turning invested capital into revenues.

This significant difference provides an important clue for Microsoft's strategic leaders to dig deeper to find the underlying drivers in working capital turnover. This enables executives to uncover which levers to pull to improve firm financial performance. In a next step, therefore, managers break down working capital turnover into other constituent financial ratios, including *Working Capital / Revenue*; *Plant, Property, and Equipment (PPE) / Revenue*; and *Long-term Assets / Revenue*. Each of these metrics is a measure of how effective a particular item on the balance sheet is contributing to revenue.

**Working Capital / Revenue.** The *working capital to revenue* ratio indicates how much of its working capital the firm has tied up in its operations. Apple (with a *working capital to revenue* ratio of 5.5 percent) operates much more efficiently than Microsoft (*working capital to revenue* ratio of 130.3 percent), because it has much less capital tied up in its operations. One reason is that Apple outsources its manufacturing. The vast majority of Apple's manufacturing of its products is done in China by low-cost producer Foxconn, which employs about 1 million people. Moreover, Apple benefits from an effective management of its global supply chain.

Although Apple's installed base of iPhone users globally is about 1 billion, one significant area of future vulnerability for Apple is that about 60 percent of annual revenues are based on sales of a single product—the iPhone, depending on model year. Moreover, China accounts for about 20 percent of Apple's total revenues. But demand in China for the newer high-end iPhones such as the iPhone XS Max has been dropping sharply in the face of local competition from Huawei, Xiaomi, and others. Apple's continued dependence on iPhone sales as well as declining sales in China are pressing issues that Apple CEO Tim Cook needs to address in order to sustain Apple's competitive advantage.

**PPE / Revenue.** The *PPE over revenue* ratio indicates how much of a firm's revenues are dedicated to cover *plant, property, and equipment*, which are critical assets to a firm's operations but cannot be liquidated easily. One reason Microsoft's *PPE to revenue* ratio (42.4 percent) is significantly higher than that of Apple's (15.6 percent) is the fact that Microsoft invests huge amounts of money on its cloud business, Azure. To do so, it needs to





build hundreds of data centers (large groups of networked computer servers used for the remote storage, processing, or distribution of large amounts of data) across the globe, a costly proposition reflected in high *PPE* expenditures on a much lower revenue base than Apple. On the upside, Azure is already reporting some \$23 billion in sales (in 2018), second only to Amazon's AWS with \$27 billion in sales as the world's largest cloud-computing services provider.

A second area of future growth for Microsoft is likely to be artificial intelligence (AI). For example, algorithms combing through vast amounts of data on professionals and their networks might be able to tell sales staff on which leads to spend most of their time. This explains why Microsoft paid \$26 billion in 2016 to acquire LinkedIn, a professional social network with some 250 million monthly active users.

**Long-term Assets / Revenue.** Finally, the *Long-term assets / Revenue* ratio indicates how much of each dollar a firm earns in revenues is tied up in long-term assets. Such assets include anything that cannot be turned into cash or consumed within one year. In the high-tech industry, long-term assets include not only plant, property, and equipment but also intangible assets. Intangible assets do not have physical attributes (see discussion of intangible resources in Chapter 4), and include a firm's intellectual property (such as patents, copyrights, and trademarks), goodwill, and brand value.

One way to think about this is that intangibles are the missing piece to be added to a firm's physical resource base (that is *plant, property, and equipment* and *current assets*) to make up a company's total (long-term) asset base. With a higher *Long-term assets / Revenue* ratio, Apple (64.4 percent) has much more value tied up in long-term assets than Microsoft (6.6 percent). Because the companies no longer break out their long-term assets into intangible and tangible assets, this figure is a bit harder to interpret. Apple's new campus in Cupertino, California, cost more than \$5 billion, making it the most expensive office space ever built.<sup>12</sup> This large investment into long-term assets is one contributing factor why this particular ratio is much higher for Apple than Microsoft.

A deeper understanding of the fundamental drivers for differences in firm profitability allows leaders to develop strategic approaches. For example, CEO Satya Nadella could rework Microsoft's cost structure, in particular, its fairly high R&D and SG&A spending. Perhaps, R&D dollars could be spent more effectively. Apple generates a much higher return on its R&D spending. Microsoft's sales and marketing expenses also seem to be quite high, but may be needed to rebuild Microsoft's brand image with a new focus on mobile and cloud computing.

**LIMITATIONS OF ACCOUNTING DATA.** Although accounting data tend to be readily available and we can easily transform them into financial ratios to assess and evaluate competitive performance, they also exhibit some important limitations:

- *Accounting data are historical and thus backward-looking.* Accounting profitability ratios show us only the outcomes from past decisions, and the past is no guarantee of future performance. There is also a significant time delay before accounting data become publicly available. Some strategists liken making decisions using accounting data to driving a car by looking in the rearview mirror.<sup>13</sup> While financial strength certainly helps, past performance is no guarantee that a company is prepared for market disruption.
- *Accounting data do not consider off-balance sheet items.* Off-balance sheet items, such as pension obligations (quite large in some U.S. companies) or operating leases in the retail industry, can be significant factors. For example, one retailer may own all its stores, which would properly be included in the firm's assets; a second retailer may lease all its stores, which would *not be* listed as assets. All else being equal, the second



retailer's return on assets (ROA) would be higher. Strategists address this shortcoming by adjusting accounting data to obtain an *equivalent* economic capital base, so that they can compare companies with different capital structures.

- *Accounting data focus mainly on tangible assets, which are no longer the most important.*<sup>14</sup> This limitation of accounting data is nicely captured in the adage: *Not everything that can be counted counts. Not everything that counts can be counted.*<sup>15</sup> Although accounting data capture some intangible assets, such as the value of intellectual property (patents, trademarks, and so on) and customer goodwill, many key intangible assets are not captured. Today, the most competitively important assets tend to be intangibles such as innovation, quality, and customer experience, which are not included in a firm's balance sheets. For example, Apple's core competency in designing beautiful and user-friendly mobile devices embedded within a large ecosystem of various services, such as ApplePay, is not a balance sheet item, but nonetheless a critical foundation in its quest for competitive advantage.

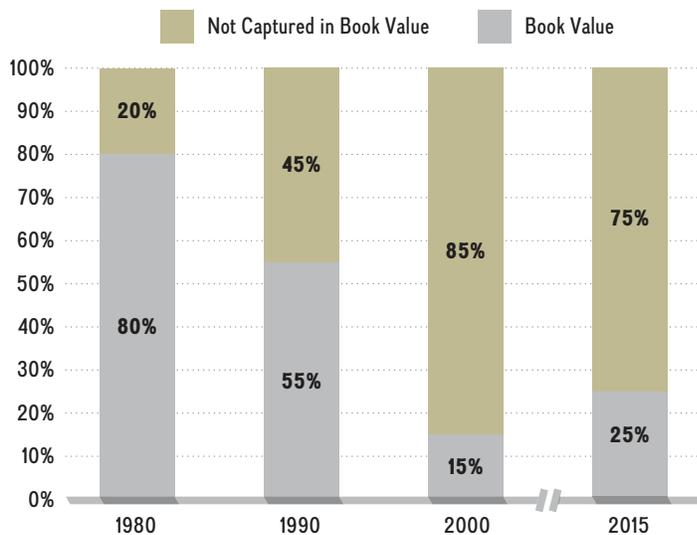
**INTANGIBLES AND THE VALUE OF FIRMS.** Intangible assets that are not captured in accounting data have become much more important in firms' stock market valuations over the last few decades. Exhibit 5.2 shows the firm's book value (accounting data capturing the firm's actual costs of assets minus depreciation) as part of a firm's total stock market valuation (number of outstanding shares times share price). The firm's book value captures the historical cost of a firm's assets, whereas market valuation is based on future expectations for a firm's growth potential and performance. For the firms in the S&P 500 (the 500 largest publicly traded companies by market capitalization in the U.S. stock market, as determined by Standard & Poor's, a rating agency), the importance of a firm's book value has declined dramatically over time. This decline mirrors a commensurate increase in the importance of intangibles that contribute to growth potential and yet are not captured in a firm's accounting data.

In 1980 about 80 percent of a firm's stock market valuation was based on its book value with 20 percent based on the market's expectations concerning the firm's future performance.

This almost reversed by 2000 (at the height of the internet bubble), when firm valuations were based only 15 percent on assets captured by accounting data. The important take-away is that intangibles not captured in firms' accounting data have become much more important to a firm's competitive advantage. By 2015, about 75 percent of a firm's market valuation was determined by its intangibles. This trend explains why in 2019, Amazon (\$950 billion) is valued almost five times as much as Boeing (\$200 billion), or why Alphabet, Google's parent company (\$830 billion), is valued over 15 times more than GM (\$54 billion).

So what have we learned about accounting profitability? Key financial ratios based on accounting data give us an important tool with which to assess competitive advantage. In particular, they help us measure *relative* profitability, which is

**EXHIBIT 5.2** The Declining Importance of Book Value in a Firm's Stock Market Valuation, 1980–2015



Source: Analysis and depiction of data from Compustat, 1980–2015.



useful when comparing firms of different sizes over time. While not perfect, these ratios are an important starting point when analyzing the competitive performance of firms (and thus are a critical tool for case analysis). Again, see the “How to Conduct a Case Analysis” module in Part 4. We next turn to *shareholder value creation*, a second traditional way to measure and assess competitive advantage, attempting to overcome the shortcomings of a backward-looking internal focus on mostly tangible assets inherent in accounting profitability.

## SHAREHOLDER VALUE CREATION

**Shareholders**—individuals or organizations that own one or more shares of stock in a public company—are the legal owners of public companies. From the shareholders’ perspective, the measure of competitive advantage that matters most is the return on their **risk capital**,<sup>16</sup> which is the money they provide in return for an equity share, money that they cannot recover if the firm goes bankrupt. In September 2008, the shareholders of Lehman Brothers, a global financial services firm, lost their entire investment of about \$40 billion when the firm declared bankruptcy.

Investors are primarily interested in a company’s **total return to shareholders**, which is the return on risk capital, including stock price appreciation plus dividends received over a specific period. Unlike accounting data, total return to shareholders is an *external* and *forward-looking* performance metric. It essentially indicates how the stock market views all available public information about a firm’s past, current state, and expected future performance, with most of the weight on future growth expectations.

The idea that all available information about a firm’s past, current state, and expected future performance is embedded in the market price of the firm’s stock is called the *efficient-market hypothesis*.<sup>17</sup> In this perspective, a firm’s share price provides an objective performance indicator. When assessing and evaluating competitive advantage, a comparison of rival firms’ share price development or market capitalization provides a helpful yardstick when used over the *long term*. **Market capitalization** (or market cap) captures the total dollar market value of a company’s outstanding shares at any given point in time (*Market cap* = *Number of outstanding shares* × *Share price*). If a company has 50 million shares outstanding, and each share is traded at \$200, the market capitalization is \$10 billion ( $50,000,000 \times \$200 = \$10,000,000,000$ , or \$10 billion).<sup>18</sup>

**BENCHMARK METRICS.** All public companies in the United States are required to report total return to shareholders annually in the statements they file with the Securities and Exchange Commission (SEC). In addition, companies must also provide benchmarks, usually one comparison to the industry average and another to a broader market index that is relevant for more diversified firms.<sup>19</sup> Since competitive advantage is defined in relative terms, these benchmarks allow us to assess whether a firm has a competitive advantage.

In its annual reports, Microsoft, for example, compares its performance to two stock indices: the NASDAQ computer index and the S&P 500. The computer index includes over 400 high-tech companies traded on the NASDAQ, including Apple, Adobe, Google, Intel, and Oracle. It provides a comparison of Microsoft to the computer industry—broadly

### LO 5-2

Apply shareholder value creation to assess and evaluate competitive advantage.

**shareholders** Individuals or organizations that own one or more shares of stock in a public company.

**risk capital** The money provided by shareholders in exchange for an equity share in a company; it cannot be recovered if the firm goes bankrupt.

**total return to shareholders** Return on risk capital that includes stock price appreciation plus dividends received over a specific period.

**market capitalization** A firm performance metric that captures the total dollar market value of a company’s total outstanding shares at any given point in time.





defined. The S&P 500 offers a comparison to the wider stock market beyond the computer industry. In its 2018 annual report, Microsoft shows that it *outperformed* the S&P 500 since 2016 and the NASDAQ computer index in 2018.

**GROWTH-RATE PREDICTIONS.** Effective strategies to grow the business can increase a firm's profitability and thus its stock price.<sup>20</sup> Indeed, investors and Wall Street analysts expect continuous growth. A firm's stock price generally increases only if the firm's rate of growth exceeds investors' expectations. This is because investors discount into the present value of the firm's stock price whatever growth rate they foresee in the future. If a low-growth business like Comcast (in cable TV) is expected to grow 2 percent each year but realizes 4 percent growth, its stock price will appreciate. In contrast, if a fast-growing business like Apple in mobile computing is expected to grow by 10 percent annually but delivers "only" 8 percent growth, its stock price will fall.

Investors also adjust their expectations over time. Since the business in the slow-growth industry surprised them by delivering higher than expected growth, they adjust their expectations upward. The next year, they expect this firm to again deliver 4 percent growth. On the other hand, if the industry average is 10 percent a year in the high-tech business, the firm that delivered 8 percent growth will again be expected to deliver at least the industry average growth rate; otherwise, its stock will be further discounted.

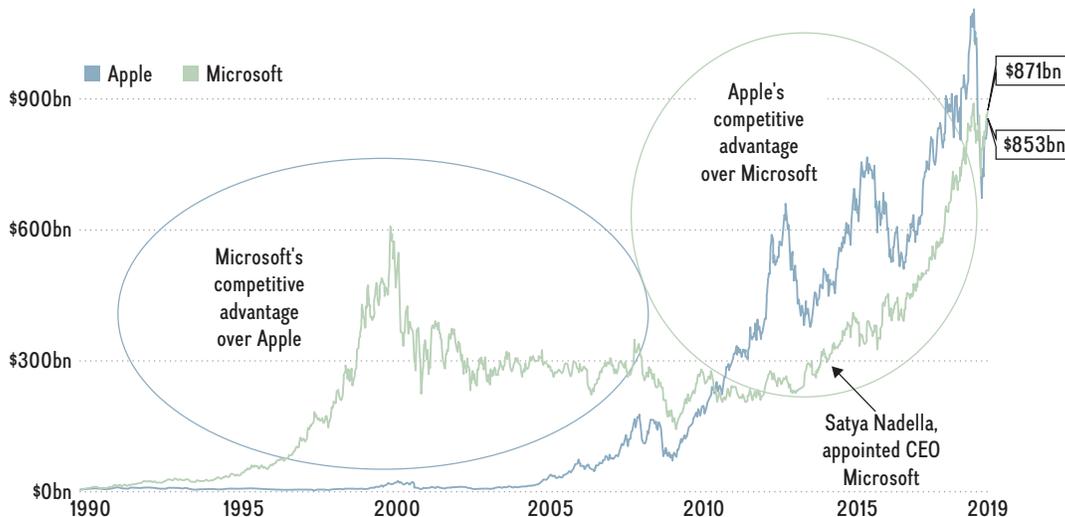
In ChapterCase 5, we noted that Apple was the first company to reach \$1 trillion in market cap (in the fall of 2018). By spring 2019, Apple's market cap stood at \$995 billion, while Microsoft's market cap was over \$1 trillion. Indeed, Microsoft was again the most valuable company worldwide, followed by Apple, Amazon, Alphabet, and Facebook. It is noteworthy that the five most valuable companies globally are all tech companies—underscoring the importance of future growth expectations by investors.

**STOCK MARKET VALUATIONS.** Considering stock market valuations (*Share price*  $\times$  *Number of outstanding shares*) over the long term provides a useful metric to assess competitive advantage. Exhibit 5.3 shows the stock market valuations for Apple and Microsoft from 1990 until 2019. Microsoft was the most valuable company worldwide (in December 1999 with close to \$600 billion in market cap), but its market valuation dropped in the following decade. The valuation declined because Microsoft struggled with the transition from desktop to mobile and cloud-based computing. CEO Satya Nadella, however, is moving Microsoft away from its Windows-only business model to compete more effectively in a "mobile first, cloud first world."<sup>21</sup> Nadella's strategic initiative is starting to bear fruit as investors appear to be pleased with how well Microsoft is performing in future growth areas such as cloud computing. As Exhibit 5.3 shows that since Nadella took the helm at Microsoft in 2014, the company's market cap has been increasing at a steep clip, even overtaking Apple at the end of the time period, making Microsoft again the most valuable company globally (see more detail in Part II of ChapterCase 5).

**LIMITATIONS OF SHAREHOLDER VALUE CREATION.** Although measuring firm performance through total return to shareholders and firm market capitalization has many advantages, just as with accounting profitability, it has its shortcomings:

- *Stock prices can be highly volatile, making it difficult to assess firm performance, particularly in the short term.* This volatility implies that *total return to shareholders* is a better measure of firm performance and competitive advantage over the long term (as shown in Exhibit 5.3), because of the "noise" introduced by market volatility, external factors, and investor sentiment.



**EXHIBIT 5.3** Stock Market Valuations of Apple and Microsoft (in \$bn), 1990–2019


Source: Depiction of publicly available data.

- Overall macroeconomic factors such as economic growth or contraction, the unemployment rate, and interest and exchange rates all have a direct bearing on stock prices. It can be difficult to ascertain the extent to which a stock price is influenced more by external macroeconomic factors (as discussed in Chapter 3) than by the firm's strategy (see also Exhibit 3.2 highlighting firm, industry, and other effects in overall firm performance).
- Stock prices frequently reflect the psychological mood of investors, which can at times be irrational. Stock prices can overshoot expectations based on economic fundamentals amid periods like the internet boom, during which former Federal Reserve Chairman Alan Greenspan famously described investors' buoyant sentiments as "irrational exuberance."<sup>22</sup> Similarly, stock prices can undershoot expectations during busts like the 2008–2009 global financial crisis, in which investors' sentiment was described as "irrational gloom."<sup>23</sup>

## ECONOMIC VALUE CREATION

The relationship between *economic value creation* and competitive advantage is fundamental in strategic management. It provides the foundation upon which to formulate a firm's competitive strategy for cost leadership or differentiation (discussed in detail in Chapter 6). For now, suffice it to say that a firm has a competitive advantage when it creates more *economic value* than rival firms. What does this mean?

**Economic value created** is the difference between a buyer's willingness to pay for a product or service and the firm's total cost to produce it. Let's say a consumer is considering buying a new laptop and she has a budget of \$1,200. She has narrowed her choices down to Model 1 by Firm A and Model 2 by Firm B. Because she has owned a laptop by Firm A before, she is familiar with its models. She values Model 1 at a **reservation price** of \$1,000, which is the maximum she is willing to pay for it. Model 1 is comparable to a more or less generic, run-of-the-mill laptop. In contrast, she values Model 2 by Firm B at \$1,200 because it has a somewhat higher performance, is more user-friendly, and has a greater "coolness factor." Given that she values Model 2 by Firm B at \$200 more than she values Model 1 by Firm A, she purchases Model 2, paying as much as her reservation price allows.

### LO 5-3

Explain economic value creation and different sources of competitive advantage.

**economic value created** Difference between value ( $V$ ) and cost ( $C$ ), or  $(V - C)$ .

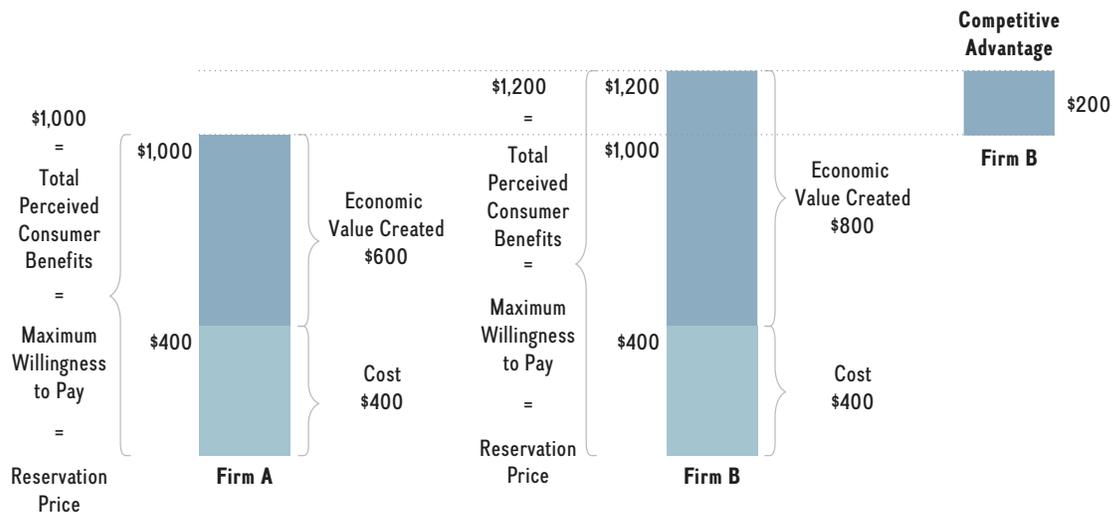
**reservation price** The maximum price a consumer is willing to pay for a product or service based on the total perceived consumer benefits.

**IMPLICATIONS FOR FIRM-LEVEL COMPETITIVE ADVANTAGE.** Let's now move from individual considerations to the overall laptop market in order to derive implications for firm-level competitive advantage. To simplify this illustration, we will recognize Firm A and Firm B as the only firms competing in the laptop market. Assuming that both firms produce their respective models at the same total unit cost (\$400), and the market at large has preferences similar to that of our consumer, then Firm B will have a competitive advantage. Why? As Exhibit 5.4 depicts, even though the total unit costs for both firms is the same, Firm B's laptop is perceived as providing more utility than Firm A's laptop, which implies that Firm B creates more economic value ( $\$1,200 - \$400 = \$800$ ) than Firm A ( $\$1,000 - \$400 = \$600$ ). Thus, Firm B has a competitive advantage over Firm A because Firm B's *total perceived consumer benefits* are greater than Firm A's, while the firms have the same cost. The amount of *total perceived consumer benefits* equals the *maximum willingness to pay*, or the *reservation price*. In short, Firm B's advantage is based on superior *differentiation* leading to higher perceived value. Further, the competitive advantage can be quantified: It is \$200 (or  $\$1,200 - \$1,000$ ) per laptop sold for Firm B over Firm A (see Exhibit 5.4).

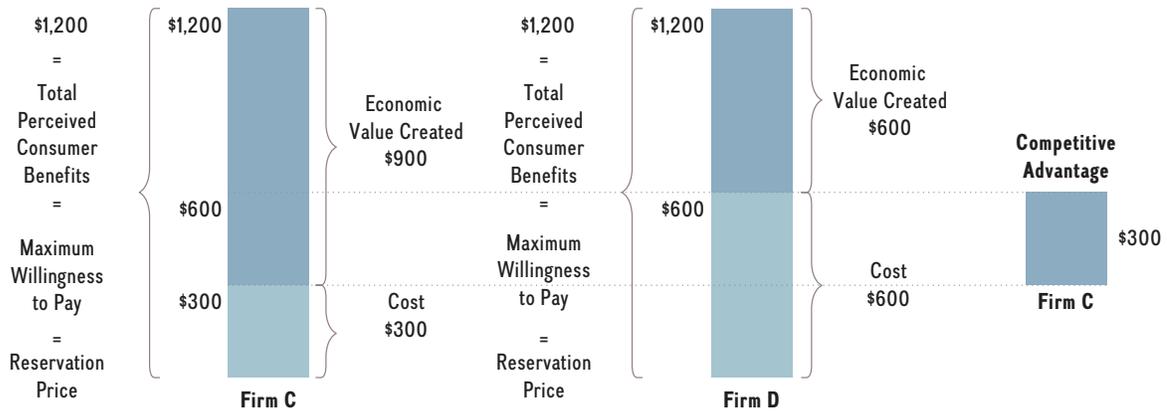
Exhibit 5.4 shows that Firm B's competitive advantage is based on greater economic value creation because of superior product differentiation. In addition, a firm can achieve competitive advantage through a second avenue. In particular, competitive advantage can also result from a relative *cost advantage* over rivals, assuming both firms can create the same total perceived consumer benefits.

Now let's introduce two new firms to our hypothetical laptop market. Exhibit 5.5 shows how Firm C and Firm D each offer a model that has the same perceived consumer benefits (\$1,200). Firm C, however, creates greater economic value (\$900, or  $\$1,200 - \$300$ ) than does Firm D (\$600, or  $\$1,200 - \$600$ ). Why? Because Firm C's total unit cost (\$300) is lower than Firm D's (\$600). Firm C has a relative cost advantage over Firm D, even though both products provide the same total perceived consumer benefits (\$1,200). Furthermore, Firm C has a competitive advantage over Firm D in the amount of \$300 for each laptop sold. Here, the source of Firm C's competitive advantage is a relative cost advantage over its rival, Firm D, while perceived consumer benefits are the same.

**EXHIBIT 5.4** Firm B's Competitive Advantage: Same Cost as Firm A but Firm B Creates More Economic Value



**EXHIBIT 5.5** Firm C's Competitive Advantage: Same Total Perceived Consumer Benefits as Firm D but Firm C Creates More Economic Value



So far we have looked at situations in which products are priced at the maximum that a consumer might be willing to pay. But markets generally don't work like that. More often, the economic value created is shared between the producer and the consumer. That is, most of the time consumers are able to purchase the product at a price point below the maximum they are willing to spend. Both the seller and the buyer benefit.

**VALUE, PRICE, AND COST.** For ease in calculating competitive advantage, three components are needed. These will help us to further explain *total perceived consumer benefits* and *economic value created* in more detail:

1. Value (*V*)
2. Price (*P*)
3. Cost (*C*)

**Value** denotes the dollar amount (*V*) a consumer attaches to a good or service. Value captures a consumer's willingness to pay and is determined by the perceived benefits a good or service provides to the buyer. The cost (*C*) to produce the good or service matters little to the consumer, but it matters a great deal to the producer (supplier) of the good or service since it has a direct bearing on the profit margin.

Let's return to our laptop example from Exhibit 5.4, in which Firm A and Firm B sold their laptops at different prices (\$1,000 and \$1,200, respectively), even though their total unit costs were the same (\$400). In each case, the price did not exceed the consumer's maximum willingness to pay for the particular offering. Subtracting the costs, we found that Firm A created an economic value of \$600 while Firm B created an economic value of \$800, thus achieving a competitive advantage. In most market transactions, however, some of the economic value created benefits the consumer as well.

**The Role of Consumer Surplus and Producer Surplus.** Again, let's revisit the example depicted in Exhibit 5.4. The consumer's preference was to buy the laptop from Firm B, which she would have done because she preferred this laptop and could afford it given her reservation price. Let's assume Firm B's laptop is actually on sale for \$1,000 (everything else remains constant). Assume the consumer again chooses to purchase Firm B's laptop rather than Firm A's (which she considered inferior). In this case, some of the economic

**value** The dollar amount (*V*) a consumer attaches to a good or service; the consumer's maximum willingness to pay; also called *reservation price*.

value created by Firm B goes to the consumer. On a formula basis, total perceived value of Firm B's laptop (\$1,200) splits into *economic value created* ( $V - C = \$800$ ) plus *total unit cost* ( $C = \$400$ ), or:  $V = (V - C) + C$ .

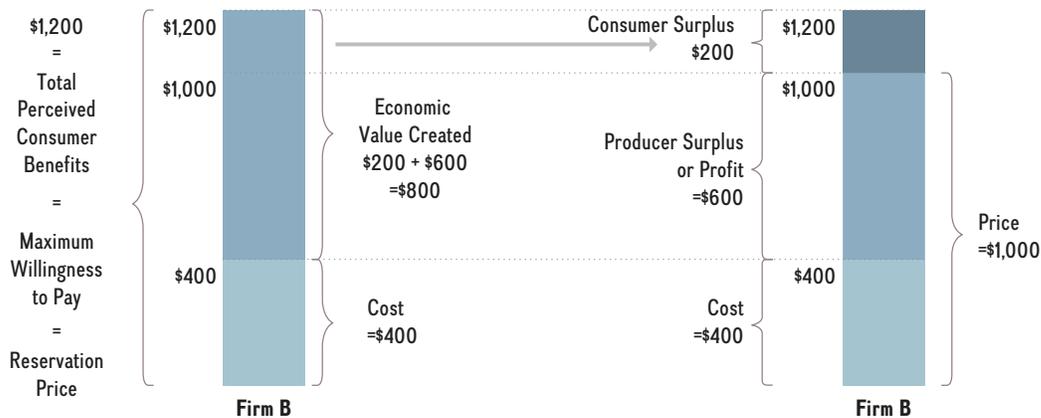
The difference between the price charged ( $P$ ) and the cost to produce ( $C$ ) is the **producer surplus**, or simply **profit**. In the laptop example in Exhibit 5.6, if the price charged is \$1,000, the profit is  $P - C = \$1,000 - \$400 = \$600$ . The firm captures this amount as profit per unit sold. The consumer captures the difference between what she would have been willing to pay ( $V$ ) and what she actually paid ( $P$ ), called **consumer surplus**. In our example, the consumer surplus is  $V - P = \$1,200 - \$1,000$ , or \$200. *Economic value creation* therefore equals *consumer surplus* plus *firm profit*, or  $(V - C) = (V - P) + (P - C)$ . In the laptop example from Exhibit 5.4:

$$\text{Economic value created } (\$1,200 - \$400) = \text{Consumer surplus } (\$1,200 - \$1,000) + \text{Producer surplus } (\$1,000 - \$400) = \$200 + \$600 = \$800.$$

**The Relationship between Consumer Surplus and Producer Surplus.** The relationship between consumer and producer surplus is the reason trade happens: Both transacting parties capture *some* of the overall value created. Note, though, that the distribution of the value created between parties need not be equal to make trade worthwhile. In the example illustrated in Exhibit 5.6, the consumer surplus is \$200, while profit per unit sold is \$600.

In some cases, where firms offer highly innovative products or services, the relationship can be even more skewed. The entry-level model of the Apple Watch retailed for \$349 when it was introduced in 2015; it sold well, selling twice as many watches as iPhones in each device's first year.<sup>24</sup> An analysis by an independent engineering team, however, revealed that the firm's total cost in terms of materials and labor for the Apple Watch was no more than \$84.<sup>25</sup> Thus, Apple's profit for each watch sold was an estimated \$265, with a profit margin of 315 percent.

**EXHIBIT 5.6** The Role of Consumer Surplus and Producer Surplus (Profit)



**producer surplus** Another term for profit, the difference between price charged ( $P$ ) and the cost to produce ( $C$ ), or  $(P - C)$ ; also called *profit*.

**profit** Difference between price charged ( $P$ ) and the cost to produce ( $C$ ), or  $(P - C)$ ; also called *producer surplus*.

**consumer surplus** Difference between the value a consumer attaches to a good or service ( $V$ ) and what he or she paid for it ( $P$ ), or  $(V - P)$ .

The economic value creation framework shows that strategy is about

1. Creating economic value.
2. Capturing as much of it as possible.

As a counterexample to Apple, consider Amazon: It is creating a large amount of value for its customers, but it is not capturing much of it (at this point). Amazon has had two decades of negative net income as it attempts to build a stronger position in a variety of businesses. With its online retail business, Amazon is creating significant value for its customers (especially its Prime members) as well as third-party sellers that use its platform, but Amazon is comfortable in taking minor or no profit in doing so. Why? Because at this point, Amazon cares more about the *installed base of its users*, thus Amazon wants to accrue as many customers as possible to benefit from network effects and to lock out competing retail platforms.

Its cloud-computing service, Amazon Web Services (AWS), also is creating tremendous value for the businesses that use it for running their computing needs, including Airbnb, Comcast, Foursquare, NASA, and even the CIA. But Amazon's "profit" margin in online retailing is zero in the United States while it is losing money internationally. In fact, Amazon's comfort level appears to bear on its acquisition of Whole Foods. Even at the high end, the grocery industry has thin margins. Before Amazon acquired it, Whole Foods had been under stockholder pressure to *increase* margins by lowering *costs* for better shareholder returns. Now Whole Foods under Amazon becomes the grocery industry's worst nightmare: It can deliver negative margins and still stockholders applaud. Even if Amazon had no plans to reap synergies between in-store and online tactics, now Whole Foods becomes super competitive with its potential ability to lower prices.<sup>26</sup> Indeed, on its first day after closing the acquisition of Whole Foods, Amazon dropped prices at its new grocery chain by more than 30 percent on some 100 grocery staples.

In this case, Amazon's customers are capturing the value that Amazon is creating. Jeff Bezos, Amazon CEO, however, is focused on long-term performance rather than short-term profitability. Amazon's investors don't seem to mind Bezos' long-term orientation, because Amazon's \$1 trillion in market cap (in 2019) makes it one of the most valuable companies on the planet.

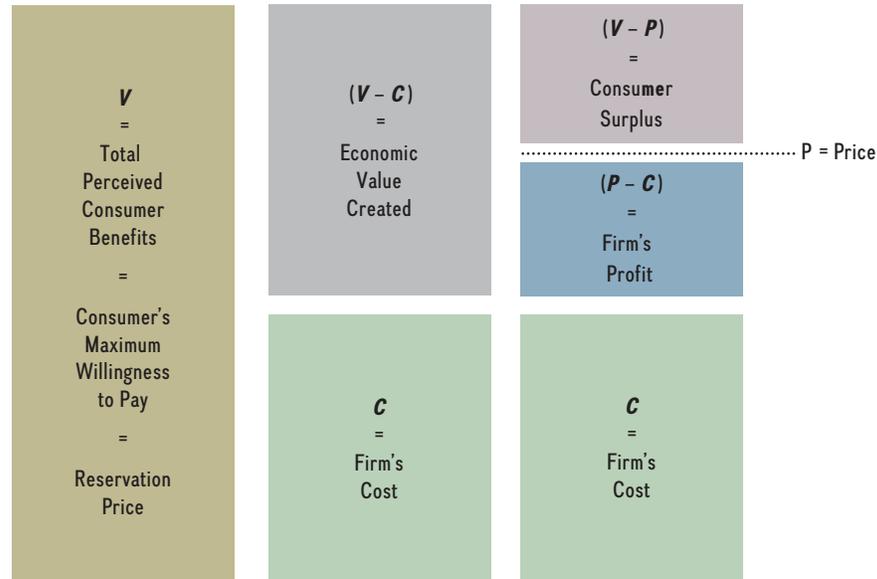
**Competitive Advantage and Economic Value Created.** Exhibit 5.7 illustrates how the components of economic value creation fit together conceptually. On the left side of the exhibit,  $V$  represents the total perceived consumer benefits, as captured in the consumer's maximum willingness to pay. In the lower part of the center bar,  $C$  is the cost to produce the product or service (the unit cost). It follows that the difference between the consumers' maximum willingness to pay and the firm's cost ( $V - C$ ) is the economic value created. The price of the product or service ( $P$ ) is indicated in the dashed line. The economic value created ( $V - C$ ), as shown in Exhibit 5.7, is split between producer and consumer: ( $V - P$ ) is the value the consumer captures (*consumer surplus*), and ( $P - C$ ) is the value the producer captures (*producer surplus*, or *profit*).

Competitive advantage goes to the firm that achieves the largest economic value created, which is the difference between  $V$ , the consumer's willingness to pay, and  $C$ , the cost to produce the good or service. The reason is that a large difference between  $V$  and  $C$  gives the firm two distinct pricing options: (1) It can charge higher prices to reflect the higher value and thus increase its profitability, or (2) it can charge the same price as competitors and thus gain market share. Given this, the strategic objective is to maximize  $V - C$ , or the economic value created.

Applying the notion of *economic value creation* also has direct implications for firm financial performance. Revenues are a function of the value created for consumers and the price

**EXHIBIT 5.7**

Competitive Advantage and Economic Value Created: The Role of Value, Cost, and Price



of the good or service, which together determine the volume of goods sold. In this perspective, profit ( $\Pi$ ) is defined as total revenues ( $TR$ ) minus total costs ( $TC$ ):

$$\Pi = TR - TC, \text{ where } TR = P \times Q, \text{ or price times quantity sold}$$

Total costs include both fixed and variable costs. *Fixed costs* are independent of consumer demand—for example, the cost of capital to build computer manufacturing plants or an online retail presence to take direct orders. *Variable costs* change with the level of consumer demand—for instance, components such as different types of display screens, microprocessors, hard drives, and keyboards.

Rather than merely relying on historical costs, as done when taking the perspective of *accounting profitability* (introduced earlier), in the *economic value creation* perspective, *all costs*, including *opportunity costs*, must be considered. **Opportunity costs** capture the value of the best forgone alternative use of the resources employed.

An entrepreneur, for example, faces two types of opportunity costs: (1) forgone wages she could be earning if she was employed elsewhere and (2) the cost of capital she invested in her business, which could instead be invested in, say, the stock market or U.S. Treasury bonds.

At the end of the year, the entrepreneur considers her business over the last 12 months. She made an *accounting profit* of \$70,000, calculated as total revenues minus expenses, which include all historical costs but not opportunity costs. But she also realizes she has forgone \$60,000 in salary she could have earned as an employee at another firm. In addition, she knows she could have earned \$15,000 in interest if she had bought U.S. Treasury bills with a 2 percent return instead of investing \$750,000 in her business. The opportunity cost of being an entrepreneur was \$75,000 (\$60,000 + \$15,000). Therefore, when considering all costs, including opportunity costs, she actually experienced an economic loss of \$5,000 (\$75,000 – \$70,000). When considering her future options, she should stay in business only if she values her independence as an entrepreneur more than \$5,000 per year, or thinks business will be better next year.

**opportunity costs** The value of the best forgone alternative use of the resources employed.



**LIMITATIONS OF ECONOMIC VALUE CREATION.** As with any tool to assess competitive advantage, the economic value creation framework also has some limitations:

- *Determining the value of a good in the eyes of consumers is not a simple task.* One way to tackle this problem is to look at consumers' purchasing habits for their revealed preferences, which indicate how much each consumer is willing to pay for a product or service. In the earlier example, the value ( $V$ ) the consumer placed on the laptop—the highest price she was willing to pay, or her reservation price—was \$1,200. If the firm is able to charge the reservation price ( $P = \$1,200$ ), it captures all the economic value created ( $V - C = \$800$ ) as producer surplus or profit ( $P - C = \$800$ ).
- *The value of a good in the eyes of consumers changes based on income, preferences, time, and other factors.* If your income is high, you are likely to place a higher value on some goods (e.g., business-class air travel) and a lower value on other goods (e.g., Greyhound bus travel). In regard to preferences, you may place a higher value on a ticket for a Lady Gaga concert than on one for the New York Philharmonic (or vice versa). As an example of time value, you place a higher value on an airline ticket that will get you to an important business meeting tomorrow than on one for a planned trip to take place eight weeks from now.
- *To measure firm-level competitive advantage, we must estimate the economic value created for all products and services offered by the firm.* This estimation may be a relatively easy task if the firm offers only a few products or services. However, it becomes much more complicated for diversified firms such as General Electric or the Tata Group that may offer hundreds or even thousands of different products and services across many industries and geographies. Although the performance of individual strategic business units (SBUs) can be assessed along the dimensions described here, it becomes more difficult to make this assessment at the corporate level (more on this in our discussion of diversification strategy in Chapter 8).

The economic value creation perspective gives us one useful way to assess competitive advantage. This approach is conceptually quite powerful, and it lies at the center of many strategic management frameworks such as the generic business strategies (which we discuss in the next chapter). However, it falls somewhat short when managers are called upon to operationalize competitive advantage. When the need for “hard numbers” arises, managers and analysts frequently rely on firm financials such as *accounting profitability* or *shareholder value creation* to measure firm performance.

We've now completed our consideration of the three standard dimensions for measuring competitive advantage—accounting profitability, shareholder value, and economic value. Although each provides unique insights for assessing competitive advantage, one drawback is that they are more or less one-dimensional metrics. Focusing on just one performance metric when assessing competitive advantage, however, can lead to significant problems, because each metric has its shortcomings, as listed earlier. We now turn to two more conceptual and qualitative frameworks—the balanced scorecard and the triple bottom line—that attempt to provide a more holistic perspective on firm performance.

## THE BALANCED SCORECARD

Just as airplane pilots rely on a number of instruments to provide constant information about key variables—such as altitude, airspeed, fuel, position of other aircraft in the vicinity, and destination—to ensure a safe flight, so should strategic leaders rely on multiple yardsticks to more accurately assess company performance in an integrative way. The **balanced scorecard** is a framework to help managers achieve their strategic objectives more effectively.<sup>27</sup>

### LO 5-4

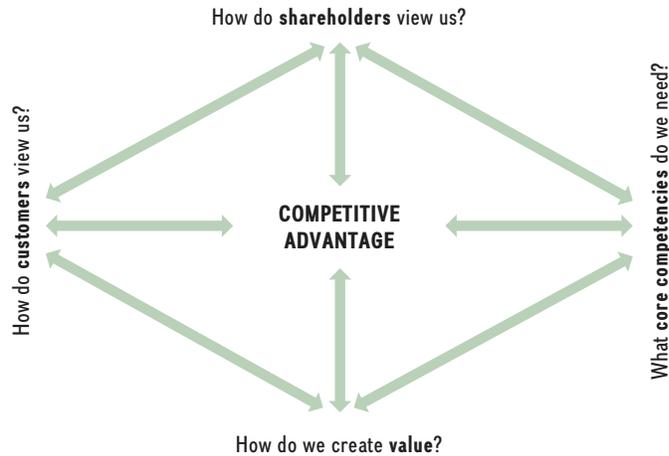
Apply a balanced scorecard to assess and evaluate competitive advantage.

#### balanced scorecard

Strategy implementation tool that harnesses multiple internal and external performance metrics in order to balance financial and strategic goals.



**EXHIBIT 5.8** Balanced-Scorecard Approach to Creating and Sustaining Competitive Advantage



This approach harnesses multiple internal and external performance metrics in order to balance both financial and strategic goals.

Exhibit 5.8 depicts the balanced-scorecard framework. Strategic leaders using the balanced scorecard develop appropriate metrics to assess strategic objectives by answering four key questions.<sup>28</sup> Brainstorming answers to these questions ideally results in measures that give managers a quick but also comprehensive view of the firm's current state. The four key questions are:

1. *How do customers view us?* The customer's perspective concerning the company's products and services links directly to its revenues and profits. Consumers decide their reservation price for a product or service based on how they view it. If the customer views the company's offering favorably, she is willing to pay more for it, enhancing its competitive advantage (assuming production costs are well below the asking price). Managers track customer perception to identify areas to improve, with a focus on speed, quality, service, and cost. In the air-express industry, for example, managers learned from their customers that many don't really need next-day delivery for most of their documents and packages; rather what they really cared about was the ability to track the shipments. This discovery led to the development of steeply discounted second-day delivery by UPS and FedEx, combined with sophisticated real-time tracking tools online.
2. *How do we create value?* Answering this question challenges managers to develop strategic objectives that ensure future competitiveness, innovation, and organizational learning. The answer focuses on the business processes and structures that allow a firm to create economic value. One useful metric is the percentage of revenues obtained from new product introductions. For example, 3M requires that 30 percent of revenues must come from products introduced within the past four years.<sup>29</sup> A second metric, aimed at assessing a firm's external learning and collaboration capability, is to stipulate that a certain percentage of new products must originate from outside the firm's boundaries.<sup>30</sup> Through its Connect + Develop program, the consumer products company Procter & Gamble has raised the percentage of new products that originated (at least partly) from outside P&G to 35 percent, up from 15 percent.<sup>31</sup>
3. *What core competencies do we need?* This question focuses managers internally to identify the core competencies needed to achieve their objectives and the accompanying business processes that support, hone, and leverage those competencies. Honda's core competency is to design and manufacture small but powerful and highly reliable engines. Its business model is to find places to put its engines. Beginning with motorcycles in 1948, Honda nurtured this core competency over many decades and is leveraging it to reach stretch goals in the design, development, and manufacture of small airplanes.

Today, consumers still value reliable, gas-powered engines made by Honda. If consumers start to value electric motors more because of zero emissions, lower maintenance costs, and higher performance metrics, among other possible reasons, the value of Honda's engine competency will decrease. If this happens, then Tesla's core competency



in designing and building high-powered battery packs and electric drivetrains will become more valuable. In turn, Tesla (featured in ChapterCase 1) might then be able to leverage this core competency into a strong strategic position in the emerging all-electric car and mobility industry.

4. *How do shareholders view us?* The final perspective in the balanced scorecard is the shareholders' view of financial performance (as discussed in the prior section). Some of the measures in this area rely on accounting data such as cash flow, operating income, ROIC, ROE, and, of course, total returns to shareholders. Understanding the shareholders' view of value creation leads managers to a more future-oriented evaluation.

By relying on both an internal and an external view of the firm, the balanced scorecard combines the strengths provided by the individual approaches to assessing competitive advantage discussed earlier: accounting profitability, shareholder value creation, and economic value creation.

**ADVANTAGES OF THE BALANCED SCORECARD.** The balanced-scorecard approach is popular in managerial practice because it has several advantages. In particular, the balanced scorecard allows strategic leaders to:

- Communicate and link the strategic vision to responsible parties within the organization.
- Translate the vision into measurable operational goals.
- Design and plan business processes.
- Implement feedback and organizational learning to modify and adapt strategic goals when indicated.

The balanced scorecard can accommodate both short- and long-term performance metrics. It provides a concise report that tracks chosen metrics and measures and compares them to target values. This approach allows strategic leaders to assess past performance, identify areas for improvement, and position the company for future growth. Including a broader perspective than financials allows managers and executives a more balanced view of organizational performance—hence its name. In a sense, the balanced scorecard is a broad diagnostic tool. It complements the common financial metrics with operational measures on customer satisfaction, internal processes, and the company's innovation and improvement activities.

As an example of how to implement the balanced-scorecard approach, let's look at FMC Corp., a chemical manufacturer employing some 5,000 people in different SBUs and earning over \$3 billion in annual revenues.<sup>32</sup> To achieve its vision of becoming “the customer's most valued supplier,” FMC's strategic leaders initially had focused solely on financial metrics such as return on invested capital (ROIC) as performance measures. FMC is a multibusiness corporation with several standalone profit-and-loss strategic business units; its overall performance was the result of both over- and underperforming units. FMC's managers had tried several approaches to enhance performance, but they turned out to be ineffective. Perhaps even more significant, short-term thinking by general managers was a major obstacle in the attempt to implement an effective business strategy.

Searching for improved performance, FMC's CEO decided to adopt a balanced-scorecard approach. It enabled the managers to view FMC's challenges and shortcomings from a holistic, company perspective, which was especially helpful to the general managers of different business units. In particular, the balanced scorecard allowed general managers to focus on market position, customer service, and product introductions that could generate long-term value. Using the framework depicted in Exhibit 5.7, strategic leaders had to





answer tough follow-up questions such as: How do we become the customer's most valued supplier, and how can my division create this value for the customer? How do we become more externally focused? What are my division's core competencies and contributions to the company goals? What are my division's weaknesses?

Implementing a balanced scorecard allowed FMC's managers to align their different perspectives to create a more focused corporation overall. General managers now review progress along the chosen metrics every month, and corporate executives do so on a quarterly basis. Implementing a balanced-scorecard approach is not a onetime effort, but requires continuous tracking of metrics and updating of strategic objectives, if needed. It is a continuous process, feeding performance back into the strategy process to assess its effectiveness (see Chapter 2).

**DISADVANTAGES OF THE BALANCED SCORECARD.** Though widely implemented by many businesses, the balanced scorecard is not without its critics.<sup>33</sup> It is important to note that the balanced scorecard is a tool for strategy *implementation*, not for strategy *formulation*. It is up to a firm's leaders to formulate a strategy that will enhance the chances of gaining and sustaining a competitive advantage. In addition, the balanced-scorecard approach provides only limited guidance about which metrics to choose. Different situations call for different metrics. All of the three approaches to measuring competitive advantage—accounting profitability, shareholder value creation, and economic value creation—in addition to other quantitative and qualitative measures can be helpful when using a balanced-scorecard approach.

When implementing a balanced scorecard, managers need to be aware that a failure to achieve competitive advantage is not so much a reflection of a poor framework but of a strategic failure. The balanced scorecard is only as good as the skills of the managers who use it: They first must devise a strategy that enhances the odds of achieving competitive advantage. Second, they must accurately translate the strategy into objectives that they can measure and manage within the balanced-scorecard approach.<sup>34</sup>

Once the metrics have been selected, the balanced scorecard tracks chosen metrics and measures and compares them to target values. It does not, however, provide much insight into how metrics that deviate from the set goals can be put back on track.<sup>35</sup>

**LO 5-5**

Apply a triple bottom line to assess and evaluate competitive advantage.

**THE TRIPLE BOTTOM LINE**

Today, strategic leaders are frequently asked to maintain and improve not only the firm's economic performance but also its social and ecological performance. When serving as CEO of PepsiCo, Indra Nooyi responded by declaring the company's vision to be *Performance with Purpose* defined by goals in the social dimension (*human sustainability* to combat obesity by making its products healthier, and the *whole person at work* to achieve work/life balance) and ecological dimension (*environmental sustainability* in regard to clean water, energy, recycling, and so on), in addition to firm financial performance. Strategy Highlight 5.1. discusses Indra Nooyi's triple bottom line initiative in detail.

Being proactive along noneconomic dimensions can make good business sense. In anticipation of coming industry requirements for "extended producer responsibility," which requires the seller of a product to take it back for recycling at the end of its life, the German carmaker BMW was proactive. It not only lined up the leading car-recycling companies but also started to redesign its cars using a modular approach. The modular parts allow for quick car disassembly and reuse of components in the after-sales market



## Strategy Highlight 5.1

### PepsiCo's Indra Nooyi: Performance with Purpose

*"Performance with Purpose is not how we spend the money we make; it's how we make the money," said Indra Nooyi while PepsiCo CEO.<sup>36</sup>*

In the 120-year history of PepsiCo, Indra Nooyi was the first, and so far only, female chief executive officer to run the multinational food, snack, and beverage company. As CEO of PepsiCo from 2006 to 2018, Nooyi was one of the world's most powerful business leaders. A native of Chennai, India, Nooyi holds multiple degrees: bachelor's degrees in physics, chemistry, and mathematics from Madras Christian College; an MBA from the Indian Institute of Management; and a master's degree in public and private management from Yale University. Before joining PepsiCo in 1994, Nooyi worked for Johnson & Johnson, Boston Consulting Group, Motorola, and ABB. For the past several years, she has been a regular in *Forbes* Top 20 most powerful women. However, she was not your typical Fortune 500 CEO: She is well known for walking around the office barefoot and singing—a remnant from her days in an all-girls rock band in high school.

It should come as no surprise, therefore, that Nooyi shook things up at PepsiCo, a company with roughly \$65 billion in annual revenues in 2018, over \$160 billion in stock market valuation, close to 270,000 employees worldwide, and business interests in more than 200 countries. She took the lead role in spinning off Taco Bell, Pizza Hut, and KFC in 1997. Later, she masterminded the acquisitions of Tropicana in 1998 and Quaker Oats, including Gatorade, in 2001. When becoming CEO in 2006, Nooyi declared PepsiCo's vision to be Performance with Purpose:

Performance with Purpose means delivering sustainable growth by investing in a healthier future for people and our planet.... We will continue to build a portfolio of enjoyable and healthier foods and beverages, find innovative ways to reduce the use of energy, water, and packaging, and provide a great workplace for our associates.... Because a healthier future for all people and our planet means a more successful future for PepsiCo. This is our promise.<sup>37</sup>

In particular, Performance with Purpose has three dimensions:

1. **Human sustainability.**

PepsiCo's strategic intent is to make its product portfolio healthier to combat obesity by reducing sugar, sodium, and saturated fat content in certain key brands. It wants to reduce the salt and fat in its "fun foods" such as Frito-Lay and Doritos brands, and to include healthy choices such as



Indra Nooyi, chief executive officer of PepsiCo from 2006 to 2018, captured her strategic leadership with the mantra "Performance with Purpose." Monica Schipper/Contributor/Getty Images

Quaker Oats products and Tropicana fruit juices in its lineup. Nooyi was convinced that if food and beverage companies do not make their products healthier, they would face stricter regulation and lawsuits, as tobacco companies did. Nooyi's goal was to increase PepsiCo's revenues for nutritious foods substantially as detailed in her 2025 Performance with Purpose agenda.

2. **Environmental sustainability.** PepsiCo instituted various initiatives to ensure that its operations don't harm the natural environment. The company has programs in place to reduce water and energy use, increase recycling, and promote sustainable agriculture. The goal is to transform PepsiCo into a company with a net-zero impact on the environment. Nooyi believed that young people will not patronize or want to work for a company that does not have a strategy that also addresses ecological sustainability.

3. **The whole person at work.** PepsiCo wants to create a corporate culture in which employees do not "just make a living, but also have a life," Nooyi said.<sup>38</sup> She argued that this type of culture allows employees to unleash both their mental and emotional energies.

PepsiCo's vision of Performance with Purpose acknowledges the importance of the corporate social responsibility

(Continued)

and stakeholder strategy. Nooyi was convinced that companies have a duty to society to “do better by doing better.”<sup>39</sup> She subscribed to a triple-bottom-line approach to competitive advantage, which considers not only economic but also social and environmental performance. As CEO, Nooyi declared that the true profits of an enterprise are not just “revenues minus costs” but “revenues minus costs minus costs to society.” Problems such as pollution or the increased cost of health care to combat obesity impose costs on society that companies typically do not bear (externalities). As Nooyi saw it, the time when corporations can just pass on their externalities to society is nearing an end.

Although PepsiCo’s revenues have remained more or less flat over the past few years, investors see significant future growth potential. Over the five years between 2013 and 2018, PepsiCo under Nooyi outperformed Coca-Cola Co. by a relatively wide margin. During this period, PepsiCo’s normalized stock appreciation was 66 percent, while Coca-Cola’s was 25 percent; thus, PepsiCo outperformed archrival Coca-Cola by 41 percentage points. With better than expected financial results in her last five years as CEO, Nooyi stands vindicated after years of criticism. Despite opposition, she stuck by her strategic mantra for PepsiCo—Performance with Purpose.<sup>40</sup>

#### triple bottom line

Combination of economic, social, and ecological concerns—or *profits, people, and planet*—that can lead to a sustainable strategy.

#### sustainable strategy

A strategy along the economic, social, and ecological dimensions that can be pursued over time without detrimental effects on people or the planet.

(so-called refurbished or rebuilt auto parts).<sup>41</sup> Three dimensions—*economic, social, and ecological*—make up the **triple bottom line**, which is fundamental to a sustainable strategy. These three dimensions are also called the three Ps: *profits, people, and planet*:

- **Profits.** The *economic dimension* captures the necessity of businesses to be profitable to survive.
- **People.** The *social dimension* emphasizes the people aspect (such as PepsiCo’s initiative of the *whole person at work*).
- **Planet.** The *ecological dimension* emphasizes the relationship between business and the natural environment.

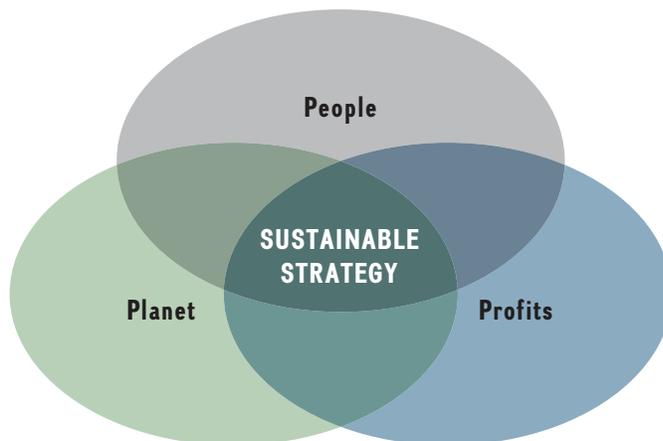
As the intersection of the three ovals (*profits, people, and planet*) in Exhibit 5.9 suggests, achieving positive results in all three areas can lead to a **sustainable strategy**. Rather than emphasizing sustaining a competitive advantage over time, *sustainable strategy* means a strategy that can be pursued over time without detrimental effects on people or the planet.

Using renewable energy sources such as wind or solar power, for example, is sustainable over time. It can also be good for profits, or simply put “green is green,” as Jeffrey Immelt when serving as GE’s CEO (until 2017). GE’s renewable energy business brought in more than \$9 billion in revenues in 2016 (up from \$3 billion in 2006).<sup>42</sup>

Like the balanced scorecard, the triple bottom line takes a more integrative and holistic view in assessing a company’s performance.<sup>43</sup> Using a triple-bottom-line approach, strategic leaders audit their company’s fulfillment of its social and ecological obligations to stakeholders such as employees, customers, suppliers, and communities as conscientiously as they track its financial performance.<sup>44</sup> In this sense, the triple-bottom-line framework is related to *stakeholder theory*, an approach to understanding a firm as embedded in a

### EXHIBIT 5.9

Sustainable Strategy: A Focus on the Triple Bottom Line



The simultaneous pursuit of performance along social, economic, and ecological dimensions provides a basis for a triple-bottom-line strategy.



network of internal and external constituencies that each make contributions and expect consideration in return (see the discussion in Chapter 1).

## 5.2 Business Models: Putting Strategy into Action

Strategy is a set of goal-directed actions a firm takes to gain and sustain superior performance relative to competitors or the industry average. The translation of strategy into action takes place in the firm's **business model**, which details the firm's competitive tactics and initiatives. Simply put, the firm's business model explains how the firm intends to make money. In particular, the business model stipulates how the firm conducts its business with its buyers, suppliers, and partners.<sup>45</sup>

How companies do business can sometimes be as important, if not more so, to gaining and sustaining competitive advantage as what they do. Indeed, a slight majority (54 percent) of senior executives responded in a survey stating that they consider business model innovation to be more important than process or product innovation.<sup>46</sup> This is because product and process innovation is often more costly, is higher risk, and takes longer to come up with in the first place and to then implement. Moreover, business model innovation is often an area that is overlooked in a firm's quest for competitive advantage, and thus much value can be unlocked by focusing on business model innovation.

Strategy Highlight 5.2 takes a closer look at how the online startup Threadless uses business model innovation to gain a competitive advantage in the highly competitive apparel industry.

Perhaps most important, a firm's competitive advantage based on product innovation, such as Apple's iPhone, is less likely to be made obsolete if embedded within a business model innovation such as Apple's ecosystem of services that make users less likely to leave Apple for a competing product, even if a competitor's smartphone by itself is a better one. Indeed, Apple has about 1 billion iPhone users embedded within its ecosystem made up of many different products and services including iTunes, iOS, App Store, iCloud, Apple Pay, and so on. Rather than substitutes, business model innovation *complements* product and service innovation, and with it raises the barriers to imitation. This in turn allows a firm that successfully combines product and business model innovation to extend its competitive advantage, as Apple has done since the introduction of the iPod and iTunes business model in 2001. This radical business innovation allowed Apple to link music producers to consumers, and to benefit from each transaction. Apple extended its locus of innovation from mere product innovation to how it conducts its business. That is, Apple provided a two-sided platform for exchange between producers and consumers to take place (see discussion in Chapter 7 on platform strategy for more details).

### THE WHY, WHAT, WHO, AND HOW OF BUSINESS MODELS FRAMEWORK

To come up with an effective business model, a firm's leaders need to transform their strategy of how to compete into a blueprint of actions and initiatives that support the overarching goals. Next, managers implement this blueprint through structures, processes, culture, and procedures. The framework shown in Exhibit 5.10 guides strategic leaders through the process of formulating and implementing a business model by asking the important questions of the why, what, who, and how. We illuminate these questions by focusing on Microsoft, also featured in ChapterCase 5.

#### LO 5-6

Use the why, what, who, and how of business models framework to put strategy into action.

#### business model

Stipulates how the firm conducts its business with its buyers, suppliers, and partners in order to make money.



## Strategy Highlight 5.2

### Threadless: Leveraging Crowdsourcing to Design Cool T-Shirts

Threadless, an online design community and apparel store ([www.threadless.com](http://www.threadless.com)), was founded in 2000 by two students with \$1,000 as start-up capital. Jake Nickell was then at the Illinois Institute of Art and Jacob DeHart at Purdue University. After Nickell had won an online T-shirt design contest, the two entrepreneurs came up with a business model to leverage user-generated content. The idea is to let consumers “work for you” and turn consumers into *prosumers*, a hybrid between producers and consumers.

Members of the Threadless community, which is some 3 million strong, do most of the work, which they consider fun: They submit T-shirt designs online, and community members vote on which designs they like best. The designs receiving the most votes are put in production, printed, and sold online. Each Monday, Threadless releases 10 new designs and reprints more T-shirts throughout the week as inventory is cleared out. The cost of Threadless T-shirts is a bit higher than that of competitors, about \$25.

Threadless leverages *crowdsourcing*, a process in which a group of people voluntarily perform tasks that were traditionally completed by a firm’s employees. Rather than doing the work in-house, Threadless outsources its T-shirt design to its website community. The concept of leveraging a firm’s own customers via internet-enabled technology to help produce better products is explicitly included in the Threadless business model. In particular, Threadless is leveraging the *wisdom of the crowds*, where the resulting decisions by many participants in the online forum are often better than decisions that could have been made by a single individual. To more effectively leverage this idea, the crowds need to be large and diverse.

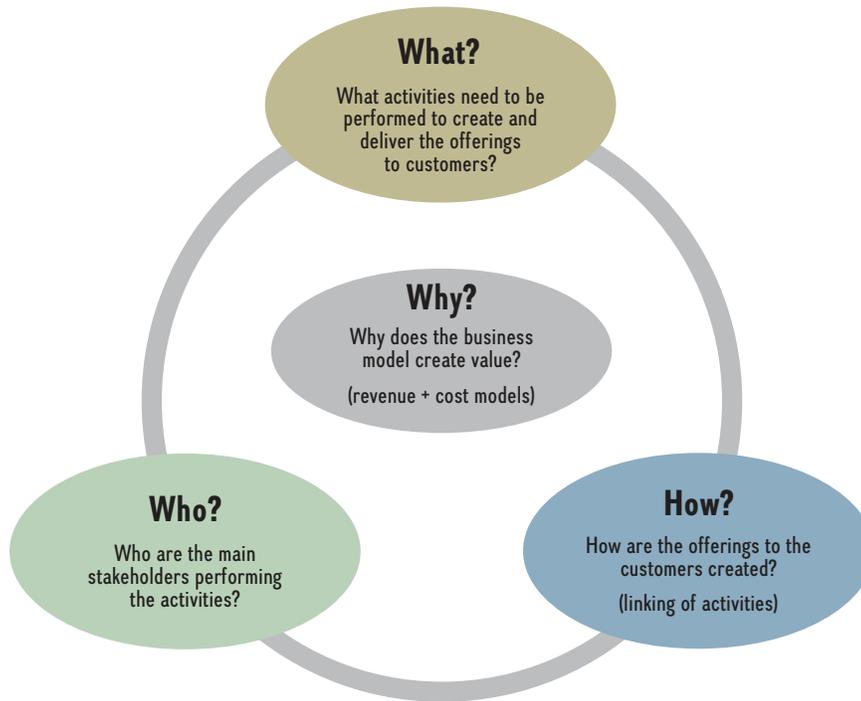
At Threadless, the customers play a critical role across the entire value chain, from idea generation to design, marketing, sales forecasting, and distribution. The Threadless business model translates real-time market research and design contests into quick sales. Threadless produces only T-shirts that were approved by its community. Moreover, it has a good understanding of market demand



Two college students started Threadless, which turned into an online company that sells millions of dollars’ worth of T-shirts annually (pictured here are models wearing Threadless’ T-shirts).  
Rene Johnston/Contributor/Getty Images

because it knows the number of people who participated in each design contest. In addition, when scoring each T-shirt design in a contest, Threadless users have the option to check “*I’d buy it.*” These features give the Threadless community a voice in T-shirt design and also coax community members into making a purchasing commitment. Threadless does not make any significant investments until the design and market size are determined, minimizing its downside.

Not surprisingly, Threadless has sold every T-shirt it has printed. Moreover, it has a cult-like following and is outperforming established companies American Eagle, Old Navy, and Urban Outfitters with their more formulaic T-shirt designs. In 2017, revenues for the privately owned Threadless were estimated to be \$18 million with a 35 (!) percent profit margin, which equates to some \$6.3 million in profits.<sup>47</sup>



**EXHIBIT 5.10**  
 The Why, What, Who, and How of Business Models Framework  
 Source: Adapted from R. Amit and C. Zott (2012, Spring), "Creating value through business model innovation," *MIT Sloan Management Review*, 41–49.

The Microsoft example lets us see how a firm can readjust its business model responding to business challenges.

1. *Why does the business model create value?* Microsoft’s new “mobile first, cloud first” business model creates value for both customers and stockholders. Customers always have the latest software, can access it anywhere, and can collaborate online with other users. Users no longer need to upgrade software or worry about “backward compatibility,” meaning the ability to read old (Word) files with new (Word) software. Microsoft enjoys steady revenue that over time provides greater fees than the earlier “perpetual license” model, significantly reduces the problem of software piracy, and balances the cost of ongoing support with the ongoing flow of revenues.
2. *What activities need to be performed to create and deliver the offerings to customers?* To pivot to the new “mobile first, cloud first” business model, Microsoft is making huge investments to create and deliver new offerings to its customers. The Redmond, Washington-based company needed to rewrite much of its software to be functional in a cloud-based environment. CEO Satya Nadella also decided to open the Office suite of applications to competing operating systems including Google’s Android, Apple’s iOS, and Linux, an open-source operating system. In all these activities, Microsoft’s Azure, its cloud-computing service, plays a pivotal role in its new business model.
3. *Who are the main stakeholders performing the activities?* Microsoft continues to focus on both the individual end consumer as well as on more profitable business clients. Microsoft’s Azure is particularly attractive to its business customers. For example, Walmart, still the largest retailer globally with some 12,000 stores staffed by over 2 million employees and revenues of some \$500 billion, runs its cutting-edge IT logistics on Microsoft’s Azure servers, rather than Amazon’s AWS service, a major competitor to Walmart.



Likewise, The Home Depot, one of the largest retailers in the United States, also uses Microsoft Azure for its computing needs.

4. *How are the offerings to the customers created?* Microsoft shifted most of its resources, including R&D and customer support, to its cloud-based offerings to not only make them best in class, but also to provide a superior user experience.

To appreciate the value of this change in business model, we should consider for a moment the problems the change allows Microsoft to address.

- Before, with the perpetual license model, Microsoft had revenue spikes on the sale but zero revenues thereafter to support users and produce necessary updates. Now, Microsoft matches revenues to its costs and even comes out further ahead, in that after two years or so, Microsoft makes more money off a software subscription than a standalone software license.
- Before, customers had a financial disincentive to keep their software current. Now, users always have the latest software, can access it anywhere, and can collaborate online with other users without worries about backward compatibility.
- Perhaps most impressively, the new model deals effectively with software piracy. Before, Microsoft suffered tremendous losses through software piracy. This affects consumers too, as the cost of piracy is borne by legal consumers to a large degree. Now, pirating cloud-based software is much more difficult because Microsoft can easily monitor how many users (based on unique internet protocol [IP] addresses) are using the same log-in information at different locations and perhaps even at the same time. Once the provider suspects piracy, it tends to disable the accounts as this goes against the terms of service agreed upon when purchasing the software, not to mention that copyright infringements are illegal. Indeed, the scope of the piracy problem is driven home by the survey-based claim that some 60 percent of computer users confess to pirating software.<sup>48</sup>

## POPULAR BUSINESS MODELS

Given their critical importance to achieving competitive advantage, business models are constantly evolving. Below we discuss some of the more popular business models:<sup>49</sup>

- Razor-razor-blades
- Subscription
- Pay-as-you-go
- Freemium
- Wholesale
- Agency
- Bundling

Understanding the more popular business models today will increase the tools in your strategy toolkit.

- **Razor-razor-blades.** The initial product is often sold at a loss or given away to drive demand for complementary goods. The company makes its money on the replacement part needed. As you might guess, it was invented by Gillette, which gave away its razors and sold the replacement cartridges for relatively high prices. The razor-razor-blade model is found in many business applications today. For example, HP charges little for its laser printers but imposes high prices for its replacement toner cartridges.



- **Subscription.** The subscription model has been traditionally used for print magazines and newspapers. Users pay for access to a product or service whether they use the product or service during the payment term or not. Microsoft uses a subscription-based model for its new Office 365 suite of application software. Other industries that use this model presently are cable television, cellular service providers, satellite radio, internet service providers, and health clubs. Netflix also uses a subscription model.
- **Pay-as-you-go.** In the *pay-as-you-go business model*, users pay for only the services they consume. The pay-as-you-go model is most widely used by utilities providing power and water and cell phone service plans, but it is gaining momentum in other areas such as rental cars and cloud computing such as Microsoft's Azure.
- **Freemium.** The *freemium (free + premium) business model* provides the basic features of a product or service *free* of charge, but charges the user for *premium* services such as advanced features or add-ons.<sup>50</sup> For example, companies may provide a minimally supported version of their software as a trial (e.g., business application or video game) to give users the chance to try the product. Users later have the option of purchasing a supported version of software, which includes a full set of product features and product support. Also, news providers such as *The New York Times* and *The Wall Street Journal* use a freemium model. They frequently provide a small number of articles for free per month, but users must pay a fee (often a flat rate) for unlimited access (including a library of past articles).
- **Ultra-low cost.** An ultra low-cost business model is quite similar to freemium: a model in which basic service is provided at a low cost and extra items are sold at a premium. The business pursuing this model has the goal of driving down costs. Examples include Spirit Airlines (in the United States), Ryanair (in Europe), or AirAsia, which provide minimal flight services but allow customers to pay for additional services and upgrades à la carte, often at a premium.
- **Wholesale.** The traditional model in retail is called a *wholesale model*. The book publishing industry is an example. Under the wholesale model, book publishers would sell books to retailers at a fixed price (usually 50 percent below the recommended retail price). Retailers, however, were free to set their own price on any book and profit from the difference between their selling price and the cost to buy the book from the publisher (or wholesaler).
- **Agency.** In this model the producer relies on an agent or retailer to sell the product, at a predetermined percentage commission. Sometimes the producer will also control the retail price. The *agency model* was long used in the entertainment industry, where agents place artists or artistic properties and then take their commission. More recently we see this approach at work in a number of online sales venues, as in Apple's pricing of book products or its app sales. (See further discussion following.)
- **Bundling.** The *bundling business model* sells products or services for which demand is negatively correlated *at a discount*. Demand for two products is negatively correlated if a user values one product more than another. In the Microsoft Office Suite, a user might value Word more than Excel and vice versa. Instead of selling both products for \$120 each, Microsoft bundles them in a suite and sells them combined at a discount, say \$150. This bundling strategy allowed Microsoft to become the number-one provider of all major application software packages such as word processing, spreadsheets, slideshow presentation, and so on. Before its bundling strategy, Microsoft faced strong competition in each segment. Indeed, Word Perfect was outselling Word, Lotus 1-2-3 was outselling Excel, and Harvard Graphics was outselling PowerPoint. The problem for Microsoft's competitors was that they did not control the operating system (Windows), which made



their programs less seamless on this operating system. In addition, the competitor products to Microsoft were offered by three independent companies, so they lacked the option to bundle them at a discount.

## DYNAMIC NATURE OF BUSINESS MODELS

Business models evolve dynamically, and we can see many combinations and permutations. Sometimes business models are tweaked to respond to disruptions in the market, efforts that can conflict with fair trade practices and may even prompt government intervention.

**COMBINATION.** Telecommunications companies such as AT&T or Verizon, to take one industry, combine the *razor-razor-blade* model with the *subscription* model. They frequently provide a basic cell phone at no charge, or significantly subsidize a high-end smartphone, when you sign up for a two-year wireless service plan. Telecom providers recoup the subsidy provided for the smartphone by requiring customers to sign up for lengthy service plans. This is why it is so critical for telecom providers to keep their *churn rate*—the proportion of subscribers that leave, especially before the end of the contractual term—as low as possible.

**EVOLUTION.** The *freemium* business model can be seen as an evolutionary variation on the *razor-razor-blade* model. The base product is provided free, and the producer finds other ways to monetize the usage. The freemium model is used extensively by open-source software companies (e.g., Red Hat), mobile app companies, and other internet businesses. Many of the free versions of applications include advertisements to make up for the cost of supporting nonpaying users. In addition, the paying premium users subsidize the free users. The freemium model is often used to build a consumer base when the marginal cost of adding another user is low or even zero (such as in software sales). Many online video games, including massive multiplayer online games and app-based mobile games, follow a variation of this model, allowing basic access to the game for free, but charging for power-ups, customizations, special objects, and similar things that enhance the game experience for users.

**DISRUPTION.** When introducing the *agency* model, we mentioned Apple and book publishing, and you are aware of how severely Amazon disrupted the traditional wholesale model for publishers. Amazon took advantage of the pricing flexibility inherent in the wholesale model and offered many books (especially e-books) below the cost that other retailers had to pay to publishers. In particular, Amazon would offer newly released bestsellers for \$9.99 to promote its Kindle e-reader. Publishers and other retailers strongly objected because Amazon's retail price was lower than the wholesale price paid by retailers competing with Amazon. Moreover, the \$9.99 e-book offer by Amazon made it untenable for other retailers to continue to charge \$28.95 for newly released hardcover books (for which they had to pay \$14 to \$15 to the publishers). With its aggressive pricing, Amazon not only devalued the printed book, but also lost money on every book it sold. It did this to increase the number of users of its Kindle e-readers and tablets.

**RESPONSE TO DISRUPTION.** The market is dynamic, and in the above example book publishers looked for another model. Many book publishers worked with Apple on an agency approach, in which the publishers would set the price for Apple and receive 70 percent of the revenue, while Apple received 30 percent. The approach is similar to the Apple App Store pricing model for iOS applications in which developers set a price for applications and Apple retains a percentage of the revenue.





Use of the agency model was intended to give publishers the leverage to raise e-book prices for retailers. Under the agency model, publishers could increase their e-book profits and price e-books more closely to prices of printed books. Publishers inked their deals with Apple, but how could they get Amazon to play ball? For leverage, publishers withheld new releases from Amazon. This forced Amazon to raise prices on newly released e-books in line with the agency model to around \$14.95.

**LEGAL CONFLICTS.** The rapid development of business models, especially in response to disruption, can lead producers to breach existing rules of commerce. In the above example, the publishers' response prompted an antitrust investigation. The Department of Justice determined (in 2012) that Apple and major publishers had conspired to raise prices of e-books. To settle the legal action, each publisher involved negotiated new deals with retailers, including Amazon. A year later, Apple was found guilty of colluding with several major book publishers to fix prices on e-books and had to change its agency model.<sup>51</sup>

### 5.3 Implications for Strategic Leaders

In this chapter, we discussed how to measure and assess competitive advantage using three traditional approaches: accounting profitability, shareholder value creation, and economic value creation. We then introduced you to two conceptual frameworks to help us understand competitive advantage in a more holistic fashion: the balanced scorecard and the triple bottom line. We then took a closer look at business models, which detail a firm's competitive tactics and initiatives in how it is making money. In particular, a business model stipulates how a firm conducts its business with its buyers, suppliers, and partners.

Exhibit 5.11 summarizes how to measure and assess competitive advantage.

Several implications for strategic leaders emerge from our discussion of competitive advantage and firm performance:

- No *best* strategy exists—only *better* ones (better in comparison with others). We must interpret any performance metric relative to those of competitors and the industry average. True performance can be judged only in comparison to other contenders in the field or the industry average, not on an absolute basis.
- The goal of strategic management is to integrate and align each business function and activity to obtain superior performance at the business unit and corporate levels. Therefore, competitive advantage is best measured by criteria that reflect *overall business unit performance* rather than the performance of specific departments. For example,

#### EXHIBIT 5.11 How to Measure and Assess Competitive Advantage

##### Competitive advantage is reflected in superior firm performance.

- Competitive advantage is assessed *relative* to a benchmark, either using competitors or the industry average.
- Competitive advantage is a multifaceted concept.
- Competitive advantage can be measured using accounting profit, shareholder value, or economic value.
- The balanced-scorecard approach harnesses multiple internal and external performance dimensions to balance a firm's financial and strategic goals.
- More recently, competitive advantage has been linked to a firm's triple bottom line, the ability to maintain performance in the economic, social, and ecological contexts (profits, people, planet) to achieve a sustainable strategy.



although the functional managers in the marketing department may (and should) care greatly about the success or failure of their recent ad campaign, the *general* manager cares most about the performance implications of the ad campaign at the business-unit level for which she has profit-and-loss responsibility. Metrics that aggregate upward and reflect overall firm and corporate performance are most useful to assess the effectiveness of a firm's competitive strategy.

- Both *quantitative and qualitative* performance dimensions matter in judging the effectiveness of a firm's strategy. Those who focus on only one metric will risk being blindsided by poor performance on another. Rather, strategic leaders need to rely on a more holistic perspective when assessing firm performance, measuring different dimensions over different time periods.
- A firm's business model is critical to achieving a competitive advantage. How a firm does business is as important as what it does.

This concludes our discussion of competitive advantage, firm performance, and business models, and completes Part 1—strategy analysis—of the AFI framework. In Part 2, we turn our attention to the next steps in the AFI framework—strategy formulation. In Chapters 6 and 7, we focus on business strategy: How should the firm compete (cost leadership, differentiation, or value innovation)? In Chapters 8 and 9, we study corporate strategy: Where should the firm compete (industry, markets, and geography)? Chapter 10 looks at global strategy: How and where (local, regional, national, and international) should the firm compete around the world?

## CHAPTERCASE 5 Part II

**GIVEN MICROSOFT'S** lackluster performance in the 2000s, this former tech leader found itself in *turnaround mode*. When a company is in turnaround mode, it has experienced a prolonged period of competitive disadvantage and needs to undertake significant changes in its strategy and/or business model to regain its competitiveness. Over time, Microsoft's competitive advantage turned into a competitive disadvantage, lagging Apple by a wide margin (see Exhibit 5.3). In 2014, Microsoft appointed Satya Nadella as its new CEO. He wasted no time moving Microsoft's strategic focus away from its Windows-only business model to compete more effectively in a "mobile first, cloud first world," the mantra he used in his appointment e-mail as CEO.

Under his leadership, Microsoft made the Office Suite available on Apple iOS and Android mobile devices. Office 365, its cloud-based software offering, is now available as a subscription service. Software applications can be accessed on any device, any time, with online storage, combined with Skype's global calling feature. Nadella still needs to work hard to ensure Microsoft's future viability, however. Although Windows and Office were cash cows for so long, currently still generating

some 40 percent of revenues and 75 percent of profits, both continue to decline. The problem Nadella now faces (due to Microsoft's "monopoly" position) is that the gross margin of "classic" PC-based Office is 90 percent, while the gross margin for Office 365 is only around 50 percent.

Nadella's strongest departure from the Windows-centric strategy is reflected in his attempt to return Microsoft to its early roots as a software firm, providing different yet open platforms for developers and consumers. To accomplish this strategic transformation, Microsoft acquired a string of successful startups including Mojang in 2014 (the maker of Minecraft), LinkedIn in 2016, and GitHub in 2018. (Before Nadella's tenure, Microsoft had also acquired Skype in 2011.) GitHub, which is akin to Facebook for developers, is a space for computer programmers to store and exchange code. This allows software developers to use and



Satya Nadella, Microsoft CEO.

Sean Gallup/Staff/Getty Images

recombine existing code to create new products and services. Microsoft already uses GitHub for its own service development and hopes that GitHub developers in turn now will be more likely to write new software for Azure, Microsoft's cloud computing services. In this space, Microsoft also has already made significant strides. Its Azure cloud business reported \$23 billion in sales in 2018, second only to Amazon's AWS with \$27 billion in sales.

In five years under Nadella's leadership as CEO, Microsoft has enjoyed a successful turnaround and a stock market valuation that almost tripled from \$301 billion in 2014 to \$896 billion in 2019, thereby creating \$595 billion in shareholder value (see also Exhibit 5.3).<sup>52</sup>

### Questions

1. This chapter introduces several approaches to assessing a firm's competitive advantage. Using any one of these

approaches, can you ascertain whether Microsoft has a competitive advantage over Apple? Why or why not? From which approach is Microsoft looking the best? Explain.

2. Microsoft CEO Satya Nadella has made drastic changes to Microsoft's strategy. What was Microsoft's strategy before Nadella was appointed CEO in 2014? What is it now under his leadership? Do you agree that Nadella has formulated a promising business model? Why or why not?
3. Looking three to five years into the future, who do you expect will have a competitive advantage: Apple or Microsoft? Explain.

NOTE: A five-year financial ratio analysis related to this ChapterCase is available in Connect.

## mySTRATEGY

### How Much Is an MBA Worth to You?

The *myStrategy* box at the end of Chapter 2 asked how much you would be willing to pay for the job you want—for a job that reflects your values. Here, we look at a different issue relating to worth: How much is an MBA worth over the course of your career?

Alongside the traditional two-year full-time MBA program, many business schools also offer evening MBAs, online MBAs, and executive MBAs. Let's assume you know you want to pursue an advanced degree, and you need to decide which program format is better for you (or you want

to evaluate the choice you already made). You've narrowed your options to either (1) a two-year full-time MBA program, or (2) an executive MBA program at the same institution that is 18 months long with classes every other weekend. Let's also assume the price for tuition, books, and fees is \$50,000 for the full-time program and \$120,000 for the executive MBA program.

Which MBA program should you choose? Consider in your analysis the value, price, and cost concepts discussed in this chapter. Pay special attention to opportunity costs attached to different MBA program options.

## TAKE-AWAY CONCEPTS

This chapter demonstrated three traditional approaches for assessing and measuring firm performance and competitive advantage, as well as two conceptual frameworks designed to provide a more holistic, albeit more qualitative, perspective on firm performance. We also discussed the role of business models in translating a firm's strategy into actions.

### LO 5-1 / Conduct a firm profitability analysis using accounting data to assess and evaluate competitive advantage.

- To measure competitive advantage, we must be able to (1) accurately assess firm performance, and (2) compare and benchmark the focal firm's



performance to other competitors in the same industry or the industry average.

- To measure accounting profitability, we use standard metrics derived from publicly available accounting data.
- Commonly used profitability metrics in strategic management are *return on assets (ROA)*, *return on equity (ROE)*, *return on invested capital (ROIC)*, and *return on revenue (ROR)*. See the key financial ratios in five tables in “How to Conduct a Case Analysis.”
- Accounting data are historical and thus backward-looking. They focus mainly on tangible assets and do not consider intangibles that are hard or impossible to measure and quantify, such as an innovation competency.

#### LO 5-2 / Apply shareholder value creation to assess and evaluate competitive advantage.

- Investors are primarily interested in total return to shareholders, which includes stock price appreciation plus dividends received over a specific period.
- Total return to shareholders is an external performance metric; it indicates how the market views all publicly available information about a firm’s past, current state, and expected future performance.
- Applying a shareholders’ perspective, key metrics to measure and assess competitive advantage are the return on (risk) capital and market capitalization.
- Stock prices can be highly volatile, which makes it difficult to assess firm performance. Overall macroeconomic factors have a direct bearing on stock prices. Also, stock prices frequently reflect the psychological mood of the investors, which can at times be irrational.
- Shareholder value creation is a better measure of competitive advantage over the *long term* due to the “noise” introduced by market volatility, external factors, and investor sentiment.

#### LO 5-3 / Explain economic value creation and different sources of competitive advantage.

- The relationship between economic value creation and competitive advantage is fundamental in strategic management. It provides the foundation

upon which to formulate a firm’s competitive strategy of cost leadership or differentiation.

- Three components are critical to evaluating any good or service: value ( $V$ ), price ( $P$ ), and cost ( $C$ ). In this perspective, cost includes opportunity costs.
- Economic value created is the difference between a buyer’s willingness to pay for a good or service and the firm’s cost to produce it ( $V - C$ ).
- A firm has a competitive advantage when it is able to create more economic value than its rivals. The source of competitive advantage can stem from higher perceived value creation (assuming equal cost) or lower cost (assuming equal value creation).

#### LO 5-4 / Apply a balanced scorecard to assess and evaluate competitive advantage.

- The balanced-scorecard approach attempts to provide a more integrative view of competitive advantage.
- Its goal is to harness multiple internal and external performance dimensions to balance financial and strategic goals.
- Managers develop strategic objectives for the balanced scorecard by answering four key questions: (1) How do customers view us? (2) How do we create value? (3) What core competencies do we need? (4) How do shareholders view us?

#### LO 5-5 / Apply a triple bottom line to assess and evaluate competitive advantage.

- Noneconomic factors can have a significant impact on a firm’s financial performance, not to mention its reputation and customer goodwill.
- Managers are frequently asked to maintain and improve not only the firm’s economic performance but also its social and ecological performance.
- Three dimensions—economic, social, and ecological, also known as *profits*, *people*, and *planet*—make up the triple bottom line. Achieving positive results in all three areas can lead to a sustainable strategy—a strategy that can endure over time.
- A sustainable strategy produces not only positive financial results, but also positive results along the social and ecological dimensions.
- Using a triple-bottom-line approach, managers audit their company’s fulfillment of its social and ecological obligations to stakeholders such as employees,



customers, suppliers, and communities in as serious a way as they track its financial performance.

- The triple-bottom-line framework is related to stakeholder theory, an approach to understanding a firm as embedded in a network of internal and external constituencies that each make contributions and expect consideration in return.

**LO 5-6 / Use the why, what, who, and how of business models framework to put strategy into action.**

- The translation of a firm’s strategy (*where and how to compete for competitive advantage*) into action

takes place in the firm’s business model (*how to make money*).

- A business model details how the firm conducts its business with its buyers, suppliers, and partners.
- How companies do business is as important to gaining and sustaining competitive advantage as what they do.
- The why, what, who, and how framework guides managers through the process of formulating and implementing a business model.

**KEY TERMS**

Balanced scorecard (p. 171)

Business model (p. 177)

Consumer surplus (p. 168)

Economic value created (p. 165)

Market capitalization (p. 163)

Opportunity costs (p. 170)

Producer surplus (p. 168)

Profit (p. 168)

Reservation price (p. 165)

Risk capital (p. 163)

Shareholders (p. 163)

Sustainable strategy (p. 176)

Total return to shareholders (p. 163)

Triple bottom line (p. 176)

Value (p. 167)

**DISCUSSION QUESTIONS**

1. How do perspectives on competitive advantage differ when comparing brick-and-mortar stores to online businesses (e.g. Best Buy versus Amazon, Old Navy versus Threadless [noted in Strategy Highlight 5.2]). Make recommendations to a primarily brick-and-mortar retail firm on how to compete more effectively with online firms. Do your suggestions fall mostly into the accounting, shareholder, or economic point of view on competitive advantage?
2. For many people, the shareholder perspective is perhaps the most familiar measure of competitive advantage for publicly traded firms. What are

some of the disadvantages of using shareholder value as the sole point of view for defining competitive advantage?

3. The chapter discusses seven different business models with a brief description of each. Given the changing nature of many industries, choose an industry you have some knowledge of and describe how the business model of a firm in that industry has changed over the last decade. (If you prefer, you can describe how a firm’s current business model should be changing in the next few years ahead.)

**ENDNOTES**

1. This ChapterCase is based on: Apple Inc. and Microsoft Corp. annual reports (various years); “Microsoft at middle age: Opening Windows,” *The Economist* (2015, Apr. 4); “What Satya Nadella did at Microsoft,” *The Economist* (2017, Mar. 16); and Mochhizuki, T. (2017, Feb. 28), “Apple’s next iPhone will have a curved screen,” *The Wall Street Journal*; and “Apple succumbs to the smartphone malaise,” *The Economist* (2019, Jan. 12).

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4. For discussion see: McGahan, A.M., and M. E. Porter (2002), "What do we know about variance in accounting profitability?" *Management Science*, 48: 834–851.

5. (*Net profits / Invested capital*) is shorthand for (*Net operating profit after taxes [NOPAT] / Total stockholders' equity + Total debt – Value of preferred stock*). See discussion of profitability ratios in Table 1, "When and How to Use Financial Measures to Assess Firm Performance," of the "How to Conduct a Case Analysis" guide that introduces Part 4 of the text.

6. The data for this section are drawn from: Apple and Microsoft annual reports (various years); Dou, E. (2017, Feb. 1), "Cheaper rivals eat away at Apple sales in China," *The Wall Street Journal*; "What Satya Nadella did at Microsoft," *The Economist* (2016, Mar. 16); "iPhone, therefore I am," *The Economist* (2016, Jan. 30); "Buying GitHub takes Microsoft back to its roots," *The Economist* (2018, Jun. 9); and "Apple succumbs to the smartphone malaise," *The Economist* (2019, Jan. 12).

7. This example is based on the 2018 SEC 10-K reports for Apple and Microsoft. Connect provides the financial analysis conducted here as an exercise for a five-year time period, 2014–2018. This allows for more dynamic considerations.

8. In 2018, Microsoft took a onetime charge of \$13.7 billion due to implementation of the Tax Cuts and Jobs Act, 2017. To allow a comparison across firms and over years, we accounted for this event by adjusting Microsoft's tax provision accordingly. See Microsoft 2018 Annual Report.

9. "The second coming of Apple through a magical fusion of man—Steve Jobs—and company, Apple is becoming itself again: The little anti-company that could," *Fortune* (1998, Nov. 9).

10. "Satya Nadella: Mobile first, cloud first press briefing," Microsoft press release (2014, Mar. 27).

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