

CHAPTER

5

Competitive Advantage, Firm Performance, and Business Models

Chapter Outline

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Learning Objectives

- 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.

The Quest for Competitive Advantage: Apple vs. Microsoft

APPLE AND MICROSOFT have been fierce rivals since their arrival in the mid-1970s. Although Apple has been dominating more recently, in the early decades of the PC revolution, Microsoft was the undisputed leader. With its Windows operating system, Microsoft set the standard in the world of personal computers. Some 90 percent of all PCs run Windows. Once users are locked into Windows, which generally comes preloaded on the computer they purchased, they then want to buy applications that run seamlessly with the operating system. The obvious choice for users is Microsoft's Office Suite (containing Word, Excel, PowerPoint, Outlook, and other software programs). Microsoft's business model was to create a large installed base of users for its PC operating system and then make money selling application software such as its ubiquitous Office Suite.

Microsoft then went on to replicate with its corporate customers this hugely successful business model of setting the standard in operating systems combined with bundling discounted application suites. Once servers became ubiquitous in corporations, Microsoft offered IT departments e-mail systems, databases, and other business applications that were tightly integrated with Windows. As a consequence, some 80 percent of Microsoft's revenues were either tied directly or indirectly to its Windows franchise. Microsoft's strategy of focusing on setting the industry standard allowed it to create a strong strategic position and to extract high profits for many years. Microsoft's bundling strategy with Office, combining different application services that run seamlessly in one discounted product offering, allowed Microsoft to overtake IBM, once the most valuable tech company. By 2000, Microsoft was the most valuable company globally with some \$510 billion in market capitalization.

In contrast, at roughly the same time, Apple was struggling to survive with less than 5 percent market share in the PC market. Near bankruptcy in 1997, Apple's revitalization took off in the fall of 2001 when it introduced the iPod, a portable digital music player. Eighteen months later, the Cupertino, California, company soared even higher when it opened the online store iTunes, quickly followed by its first retail stores. Apple's stores earn the highest sales per square foot of any retail outlets, 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 some \$620 billion market capitalization.

In 2015, the high-tech company introduced

Apple Watch, a wearable computer that is fully integrated with the iOS Apple operating system, running basically all the apps available for the iPhone. Not to be stopped, Apple introduced its 10th anniversary iPhone in 2017 to great fanfare, with a curved screen and priced at about \$1,000. In the same year, Apple's market capitalization had further risen to more than \$750 billion.

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.¹

You will learn more about Apple and Microsoft by reading this chapter; related questions appear in "ChapterCase 5 / Consider This . . ."

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



One of the few photos depicting Steve Jobs (Apple co-founder and longtime CEO) and Bill Gates (Microsoft co-founder and longtime CEO) together shows the erstwhile archrivals apparently enjoying each other's company. Taken at All Things Digital 5 in 2007.
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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 having competitive advantage. But simple comparisons have their limitations. How can we understand how and why a firm has competitive advantage? How can we measure it? How can we understand that advantage within the bigger picture of an entire industry and the ever-changing external environment? And what strategic implications for managerial actions do we derive from our assessments? These apparently simple questions do not have simple answers. Strategic management researchers have debated them intensely for the past few decades.²

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:³

1. What is the firm's *accounting profitability*?
2. How much *shareholder value* does the firm create?
3. How much *economic value* does the firm generate?

These three performance dimensions tend to be correlated, particularly over time. Accounting profitability and economic value creation tend to be reflected in the firm's stock price, which in turn determines in part 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.⁴ Since *competitive advantage* is defined as superior performance *relative* to other competitors in

the same industry or the industry average, a firm's managers must be able to accomplish two critical tasks:

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

Standardized financial metrics, derived from such publicly available accounting data as income statements and balance sheets, fulfill both these conditions. Public companies are required by law 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 (at the end of Part 4, following the MiniCases), 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 $ROIC = (\text{Net profits} / \text{Invested capital})$.⁵ 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, managers must compare their ROIC to other competitors and the industry average.

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.⁶ Exhibit 5.1 shows the ROIC for Apple and Microsoft as of fiscal year 2016.⁷ 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 18.3 percent, which is 4.6 percentage points higher than Microsoft's (13.7 percent). This means that for every \$1.00 invested in Apple, the company returned almost \$1.18, while for every \$1.00 invested in the company, Microsoft returned \$1.13. Since Apple was 33 percent more efficient than Microsoft at generating a return on invested capital, Apple had a clear competitive advantage over Microsoft. Although this is an important piece of



Tim Cook, Apple CEO.
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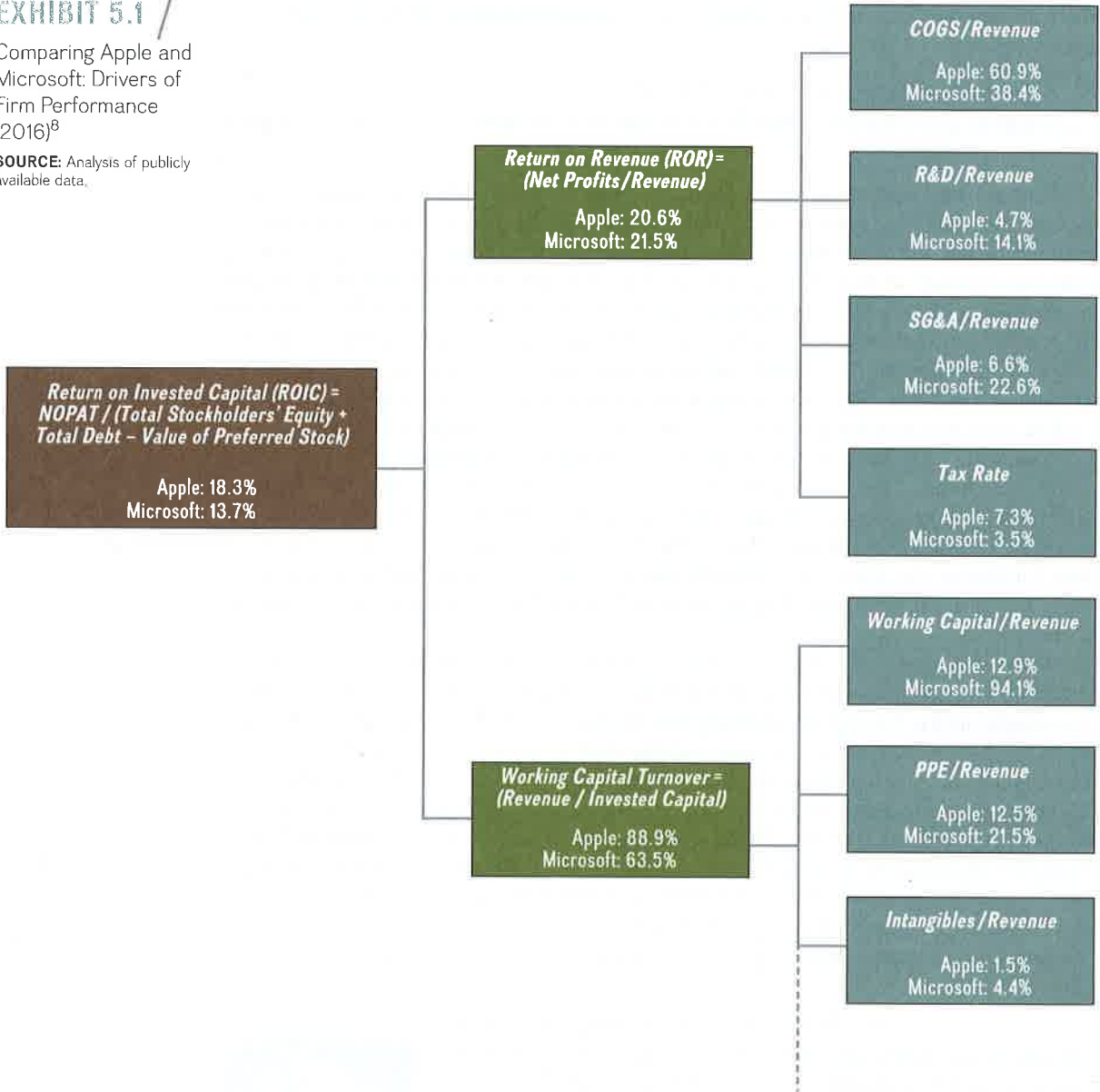


Satya Nadella, Microsoft CEO.
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EXHIBIT 5.1 /

Comparing Apple and Microsoft: Drivers of Firm Performance (2016)⁸

SOURCE: Analysis of publicly available data.



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.

We start with the first component of ROIC. *Return on revenue (ROR)* indicates how much of the firm’s sales is converted into profits. Apple’s ROR was 20.6 percent, while Microsoft’s ROR was 21.5 percent. For every \$100 in revenues, Apple earns \$20.60 in profit, while Microsoft earns \$21.50 in profit. On this metric, Microsoft had a slight edge over Apple. Keep in mind, however, that Apple’s 2016 revenues were \$218 billion, while Microsoft’s were \$86 billion. Thus, Apple is more than 2.5 times larger than Microsoft

in terms of annual sales. As we investigate the differences in ROIC further, we will also 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 explore further drivers of this difference, we break down return on revenue into three additional financial ratios:

- Cost of goods sold (COGS) / Revenue.
- Research & development (R&D) expense / Revenue.
- Selling, general, & administrative (SG&A) expense / 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 22.5 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 some two-thirds (or over \$145 billion) of Apple's total revenues in 2016.

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 4.7 percent on R&D for every dollar of revenue, while Microsoft spent almost three times as much (14.1 percent R&D). Even considering the fact that Microsoft's revenues were \$86 billion versus Apple's \$218 billion, Microsoft (\$12 billion) spent more on R&D in absolute dollars than Apple (\$10 billion). For every \$100 earned in revenues Microsoft spent \$14.10 on R&D, while Apple only spent \$4.70. 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 research and development than other firms in the high-tech industry, in both absolute and relative terms. Apple's co-founder and long-time 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."⁹

The third ratio in breaking down return on revenue, *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 \$22.60 on sales and marketing, while Apple spent \$6.60.

Again, Microsoft (\$19.4 billion) not only outspent Apple (\$14.4 billion) in absolute terms in marketing and sales expenses, but its SG&A intensity was more than 3.4 times as high as Apple's. Microsoft is spending significantly more to rebuild its brand, especially on Microsoft CEO Satya Nadella's new strategic initiative of "mobile first, cloud first."¹⁰ A focus on cloud computing on mobile devices marks a significant departure from Microsoft's Windows-centric strategy for PCs under his predecessor, Steve Ballmer. Yet, by 2017, the Windows and Office combination still generates 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 2016 was 7.3 percent (with a net income of \$45 billion), while that of Microsoft was 3.5 percent (with a net income of \$17 billion).

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 (88.9 percent vs. 63.5 percent). For every dollar that Apple puts to work, it realizes \$89.90 of sales, while Microsoft realizes \$63.50 of sales for every dollar invested; a difference of \$26.40 in sales for every dollar invested. This implies that Apple is more than 40 percent more efficient than Microsoft in turning invested capital into revenues.

This significant difference provides an important clue for Microsoft's managers to dig deeper to find the underlying drivers in working capital turnover. This enables managers to uncover which levers to pull in order 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 *Intangibles / Revenue*. Each of these metrics is a measure of how effective a particular item on the balance sheet is contributing to 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 12.9 percent) operates much more efficiently than Microsoft (*working capital to revenue* ratio of 94.1 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 over 1.3 million people. Moreover, Apple benefits from continued strong demand for its products (especially the iPhone), as well as an effective management of its global supply chain. Rather than outsourcing manufacturing to Foxconn or other original equipment manufacturers (OEMs), Microsoft owns and operates some of its manufacturing facilities. They are also located in countries with a generally higher cost structure (e.g., Brazil and Mexico, among others) than China.

Although Apple's installed base of iPhone users globally is more than 530 million, one significant area of future vulnerability for Apple is the fact that about 60 to 70 percent of its annual revenues is based on sales of a single product—the iPhone, depending on model year. Moreover, China accounts for more than 20 percent of Apple's total revenues, a market that is becoming more and more volatile for the Cupertino-based tech company. These are pressing issues that Apple CEO Tim Cook needs to address in order to sustain Apple's competitive advantage.

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 (21.5 percent) is significant higher than that of Apple (12.5 percent) is the fact that Microsoft invests huge amounts of money to build 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 \$10 billion in sales, second

only to Amazon's AWS with \$12 billion in sales as the world's largest cloud-computing services provider.

One ratio that points toward possible stronger performance in the future is Microsoft's higher *Intangibles / Revenue* ratio when comparing it to Apple's (see Exhibit 5.1). 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 asset base. With a higher *Intangibles / Revenue* ratio (albeit from a lower revenue base), Microsoft (4.4 percent) seems to be building a stronger intangible intensity (*Intangibles / Revenue*) compared with Apple (1.5 percent), which might position Microsoft stronger for innovation in future business areas such as cloud computing.

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 100 million monthly active users.

A deeper understanding of the fundamental drivers for differences in firm profitability allows managers 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.



Satya Nadella, Microsoft CEO.
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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:

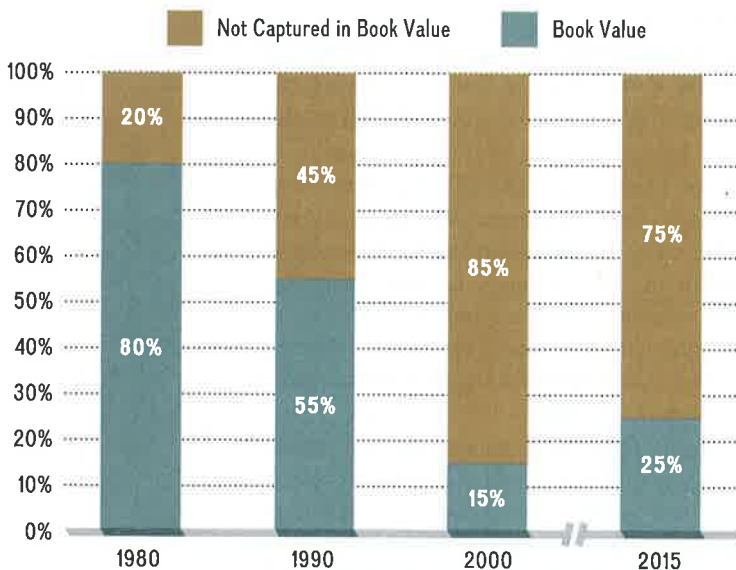
- *All accounting data are historical and thus backward-looking.* Accounting profitability ratios show us only the outcomes from past decisions, and the past is no guarantee of future performance. There is also a significant time delay before accounting data become publicly available. Some strategists liken making decisions using accounting data to driving a car by looking in the rearview mirror.¹¹ 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.*¹² 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.*¹³ 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 explains why in 2017 Alphabet, Google's parent company (\$580 billion), is valued over 10 times more than GM (\$50 billion), or why Facebook (\$400 billion) is valued almost four times as much as Boeing (\$110 billion).

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.

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 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 at the end of Part 4. We next turn to *shareholder value creation* as 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**,¹⁴ 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*.¹⁵ 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 total 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).¹⁶

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.¹⁷ 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 defined. The S&P 500 offers a comparison to the wider stock market beyond the computer industry. In its 2016 annual report, Microsoft shows that it *outperformed* both the NASDAQ computer index and the S&P 500 over the last year, while performing roughly at the same levels in previous years.

Effective strategies to grow the business can increase a firm's profitability and thus its stock price.¹⁸ 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.

LO 5-2

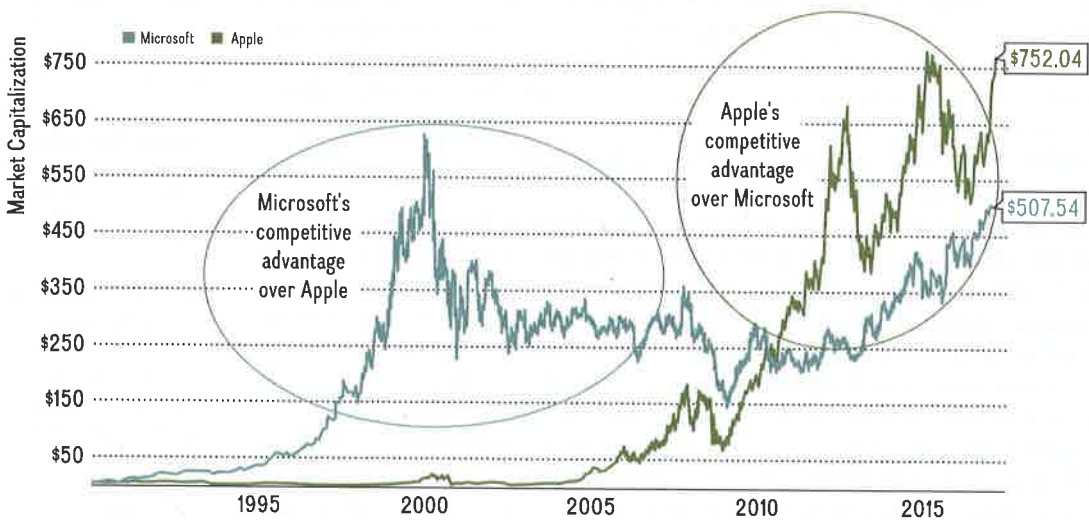
Apply shareholder value creation to assess and evaluate competitive advantage.

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.

EXHIBIT 5.3 / Stock Market Valuations of Apple and Microsoft (in \$ billion), 1990–2017

SOURCE: Depiction of publicly available data.

In ChapterCase 5, we noted that Apple was the most valuable company on the planet. In 2017, Apple's market cap was over \$750 billion. Consistent with the notion that a firm's market capitalization reflects its future growth expectations, the next four largest companies are all tech companies: Alphabet (\$580 billion), Microsoft (\$500 billion), Amazon.com (\$430 billion), and Facebook (\$400 billion).

Considering stock market valuations ($\text{Share price} \times \text{Number of outstanding shares}$) 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 2017. Microsoft was once 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 vows to move Microsoft away from its Windows-only business model to compete more effectively in a "mobile first, cloud first world."¹⁹ It appears that Nadella's strategic initiative is bearing fruit as investors appear to be pleased with how well Microsoft is performing in future growth areas such as cloud computing. With its Azure offering, Microsoft holds a strong position just after Amazon's AWS but way ahead of Google's cloud, the number-three contender in this space. Since a low of about \$220 billion in early 2013, Microsoft's market cap more than doubled to over \$500 billion by 2017. Nonetheless, Microsoft remains below Apple, as Exhibit 5.3 shows using market cap as its metric. But Microsoft is catching up—so stay tuned! This shows again that it is difficult to gain a competitive advantage and even harder to sustain it over a prolonged period of time. *Competitive advantage is transitory!*

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.

- *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.”²⁰ Similarly, stock prices can undershoot expectations during busts like the 2008–2009 global financial crisis, during which investors’ sentiment was described as “irrational gloom.”²¹

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, it is important to note that a firm has a competitive advantage when it creates more *economic value* than rival firms. What does that 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 assume you consider buying a laptop computer and you have a budget of \$1,200. You have narrowed your search to two models, one offered by Firm A, the other by Firm B. Your subjective assessment of the benefits derived from owning Firm A’s laptop is \$1,000—this is the absolute maximum you’d be willing to pay for it, or the **reservation price**. For example, this could be a more or less generic, run-of-the-mill Dell laptop. In contrast, you value Firm B’s laptop model at \$1,200 because it has somewhat higher performance, is more user-friendly, and definitely has a higher “coolness factor.” Think of Apple’s MacBook Pro with Retina Display. Given that you value Firm B’s laptop by \$200 more than Firm A’s model, you will purchase a laptop from Firm B (and, in this case, end up paying as much as your reservation price allows).

Let’s move now from your individual considerations to the overall market for laptop computers in order to derive implications for firm-level competitive advantage. To simplify this illustration, only Firm A and Firm B are competing in the market for laptops. Assuming that both Firm A and Firm B have the same total unit cost of producing the particular laptop models under consideration (\$400) and the market at large has preferences similar to yours, then Firm B will have a competitive advantage. This is because Firm B creates more economic value than Firm A (by \$200), but has the same total cost, depicted in Exhibit 5.4. The amount of *total perceived consumer benefits* equals the *maximum willingness to pay*, or the *reservation price*. This amount is then split into economic value creation and the firm’s total unit cost. Firm A and Firm B have identical total unit cost, \$400 per laptop. However, Firm B’s laptop (e.g., Apple’s MacBook Pro) is perceived to provide more utility than Firm A’s laptop (e.g., Dell’s generic laptop), which implies that Firm B creates more economic value ($\$1,200 - \$400 = \$800$) than Firm A ($\$1,000 - \$400 = \600). Taken together, Firm B has a competitive advantage over Firm A because Firm B creates more economic value. This is because Firm B’s offering has greater total perceived consumer

LO 5-3

Explain economic value creation and different sources of competitive advantage.

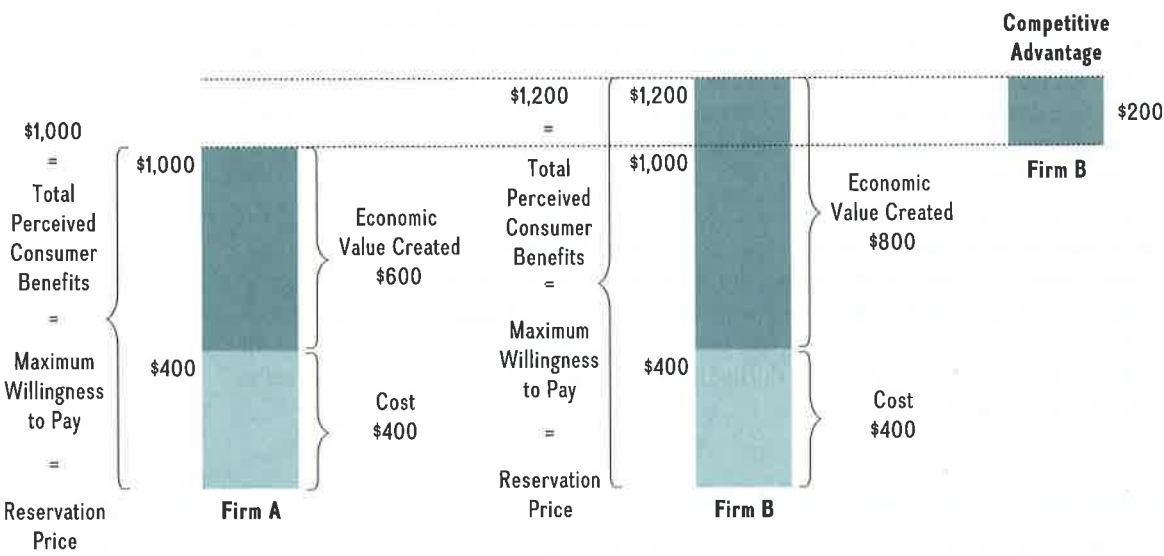
economic value created

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.

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

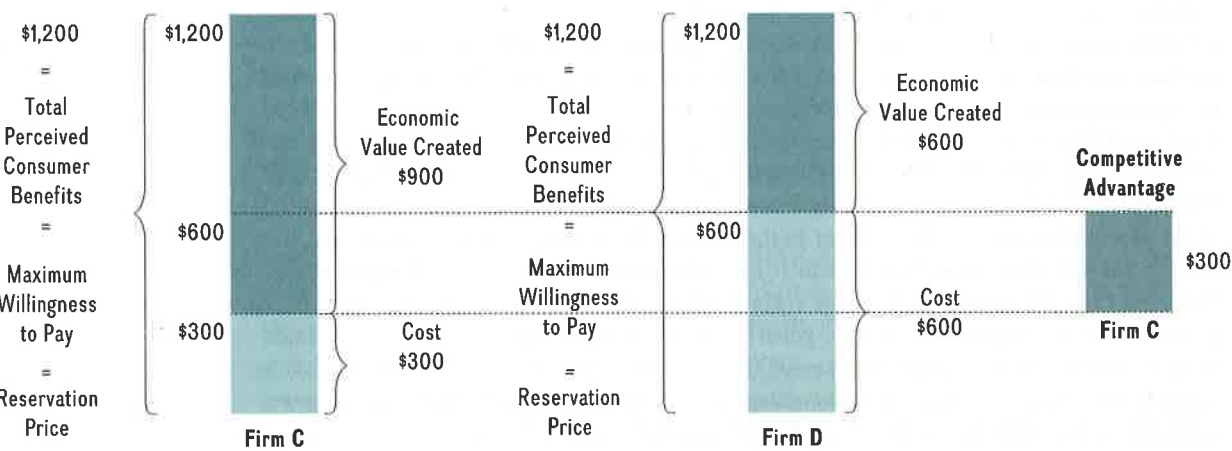


benefits than Firm A's, while the firms have the same total cost. In short, Firm B's advantage is based on superior *differentiation* leading to higher perceived value. Further, the competitive advantage can be quantified: It is \$200 (or, $\$1,200 - \$1,000$) per laptop sold for Firm B over Firm A (see 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.

As shown in Exhibit 5.5, two different laptop makers each offer a model that has the same perceived consumer benefits (\$1,200). Firm C, however, creates greater economic

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



value (\$900, or $\$1,200 - \300) than that of Firm D (\$600, or $\$1,200 - \600). This is 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, while both products provide identical total perceived consumer benefits (\$1,200). In this example, Firm C could be Lenovo with lower cost structure than Firm D, which could be HP, but both firms offer the same value. As Exhibit 5.5 shows, Firm C has a competitive advantage over Firm D because it has lower costs. Firm C's competitive advantage over Firm D is in the amount of \$300 for each laptop sold. Here, the source of the competitive advantage is a relative cost advantage over its rival.

So far we have looked at situations in which products are priced at the maximum a consumer might be willing to pay. But markets generally don't work like that. More often, the economic value created is shared among 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.

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 two firms sold their laptops at different prices (\$1,000 for Firm A and \$1,200 for Firm B), even though the costs were the same (\$400). In each case, the price matched 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.

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 it matched 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 chose to purchase the laptop of Firm B rather than the one offered by Firm A (which she considered inferior). In this case, some of the economic 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 **profit**, or **producer surplus**. 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. As the consumer, you capture the difference between what you would have been willing to pay (V) and what you 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:

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

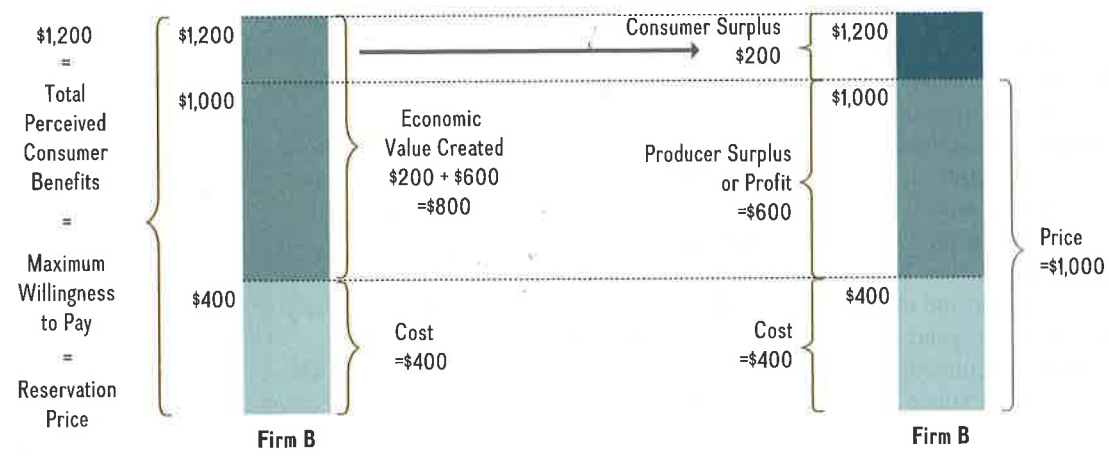
value The dollar amount (V) a consumer attaches to a good or service; the consumer's maximum willingness to pay; also called *reservation price*.

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

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

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 $(V - P)$.

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



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 introduced in 2015. And it sold well, selling twice as many watches as iPhones in each device’s first year.²² 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 is no more than \$84.²³ Thus, Apple’s profit for each watch sold is an estimated \$265, with a profit margin of 315 percent.

The economic value creation framework shows that strategy is about

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

In contrast to Apple, consider Amazon as a counterexample: It is creating a large amount of value for its customers, but it is not capturing much, if any, of it (at this point). Amazon has had several years of negative net income as it attempts to build a stronger position in a variety of businesses. With its online retail business, Amazon.com 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. Its cloud-computing service, Amazon Web Services (AWS), moreover, is also creating tremendous value for the businesses that run their computing needs on AWS, businesses including Airbnb, Comcast, Foursquare, NASA, and even the CIA (and formerly WikiLeaks), but Amazon’s “profit” margin is a negative 1 to 2 percent. 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 supercompetitive with its potential ability to lower prices.²⁴ 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 more than 100 grocery staples.

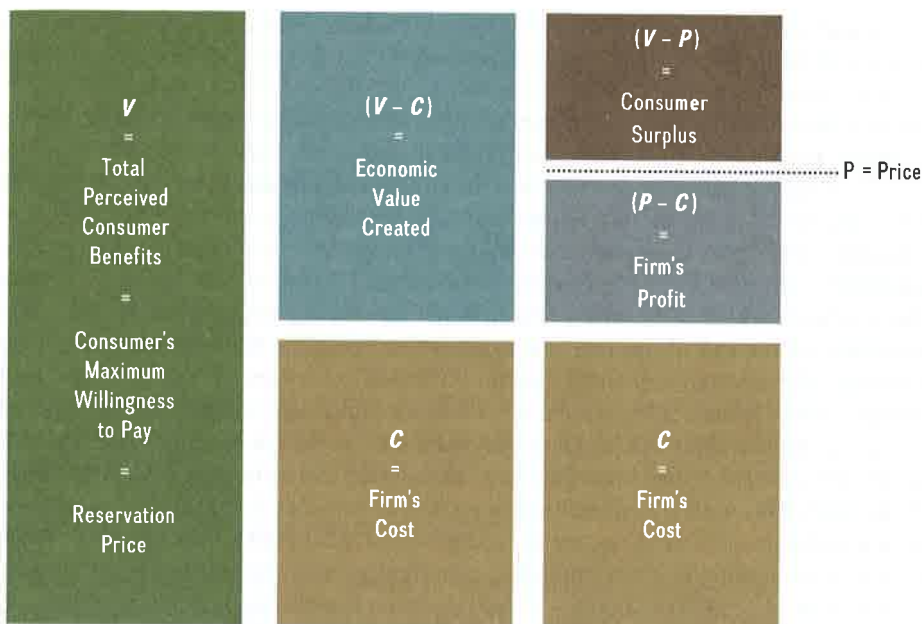


EXHIBIT 5.7 /
Competitive
Advantage and
Economic Value
Created: The Role of
Value, Cost, and Price

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 some \$430 billion in market cap makes it the fourth most valuable company on the planet.

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 of the good or service, which together drive the volume of goods sold. In this perspective, profit (Π) 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.

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) you placed on the laptop—the highest price you were willing to pay, or your 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).

opportunity costs

The value of the best forgone alternative use of the resources employed.

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 managers 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.²⁵ 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. Managers using the balanced scorecard develop appropriate metrics to assess strategic objectives by answering four key questions.²⁶ 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:

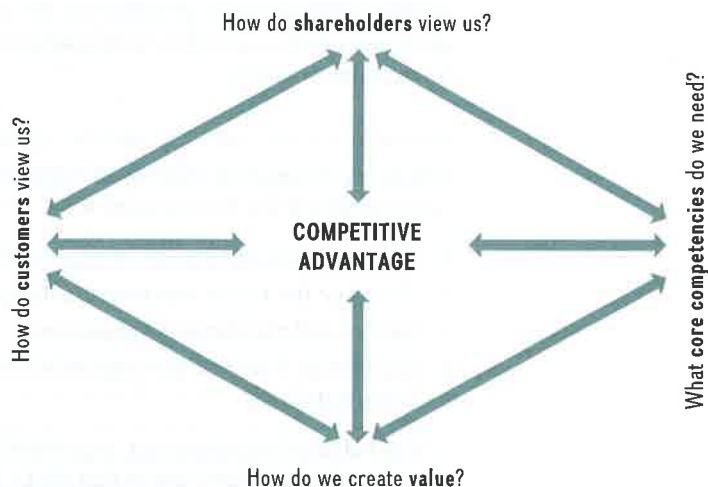
1. *How do customers view us?* The customer’s perspective concerning the company’s products and services links directly to its revenues and profits. Consumers decide their reservation price for a product or service based on how they view it. If the customer views the company’s offering favorably, she 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.

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



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.²⁷ 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.²⁸ 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, from 15 to 35 percent.²⁹
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. As mentioned in Chapter 4, 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 managers 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 managers 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.³⁰ To achieve its vision of becoming “the customer's most valued supplier,” FMC's managers 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, general managers 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.³¹ 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 managers 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.³²

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.³³

LO 5-5

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

THE TRIPLE BOTTOM LINE

Today, managers are frequently asked to maintain and improve not only the firm's economic performance but also its social and ecological performance. CEO Indra Nooyi responded by declaring PepsiCo'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.

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 (so-called refurbished or rebuilt auto parts).³⁴ 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 was fond of saying before retiring in 2017 as CEO at GE. GE's renewable energy business brought in more than \$9 billion in revenues in 2016 (up from \$3 billion in 2006).³⁵

Like the balanced scorecard, the triple bottom line takes a more integrative and holistic view in assessing a company's performance.³⁶ 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 as conscientiously as they track its financial performance.³⁷ In this sense, 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

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.

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.



Strategy Highlight 5.1

Interface: The World's First Sustainable Company

The Atlanta-based Interface Inc. is the world's largest manufacturer of modular carpet with annual sales of roughly \$1 billion. What makes the company unique is its strategic intent to become the world's first *fully sustainable* company. In 1994, founder Ray Anderson set a goal for the company to be "off oil" entirely by 2020. That included not using any petroleum-based raw materials or oil-related energy to fuel the manufacturing plants.

According to Collins and Porras in *Built to Last*, their classic study of high-performing companies over long periods of time, this is an example of a "BHAG—a big hairy audacious goal." BHAGs are bold missions declared by visionary companies and are a "powerful mechanism to stimulate progress."³⁸ Weaning Interface off oil by 2020 is indeed a BHAG. Many see the carpet industry as an extension of the petrochemical industry, given its heavy reliance on fossil fuels and chemicals in the manufacturing, shipping, and installation of its products.

Today, Interface is not only the global leader in modular carpet but also in sustainability. It offers innovative products such as its Cool Carpet, the world's first carbon-neutral floor

covering. Interface's customers reward it with a willingness to pay a higher price for its environmentally friendly products. The company estimates that between 1996 and 2008, it saved over \$400 million due to its energy efficiency and use of recycled materials.

Interface's business model is changing the carpet industry. Speaking of sustainability as a business model, Anderson concluded:

Sustainability has given my company a competitive edge in more ways than one. It has proven to be the most powerful marketplace differentiator I have known in my long career. Our costs are down, our profits are up, and our products are the best they have ever been. Sustainable design has provided an unexpected wellspring of innovation, people are galvanized around a shared higher purpose, better people are applying, the best people are staying and working with a purpose, the goodwill in the marketplace generated by our focus on sustainability far exceeds that which any amount of advertising or marketing expenditure could have generated—this company believes it has found a better way to a bigger and more legitimate profit—a better business model.³⁹

expect consideration in return (see the discussion in Chapter 2). For an example of how Interface, a global leader in the carpet industry, uses a triple-bottom-line approach to gain and sustain a competitive advantage, read Strategy Highlight 5.1.

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. The business model stipulates how the firm conducts its business with its buyers, suppliers, and partners.⁴⁰

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 to a recent survey stating that they consider business model innovation to be more important than process or product innovation.⁴¹ 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,

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



Jacob DeHart, Jake Nickell, and Jeffrey Kalmikoff created Threadless, an online company that sells millions of dollars' worth of T-shirts annually.

©Rene Johnston/Getty Images

Threadless, an online design community and apparel store (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 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 that 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.⁴²

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 counts more than 530 million 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 a substitute, 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 for over a decade 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 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 managers 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 managers 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.

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

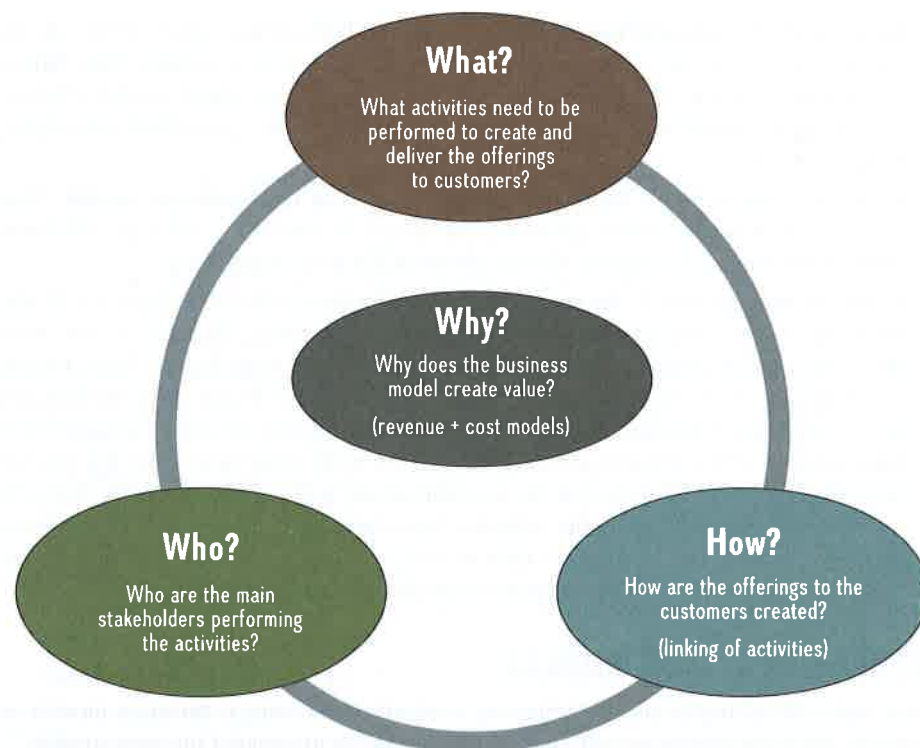


EXHIBIT 5.10 /
The Why, What, Who, and How of Business Models Framework

SOURCE: Adapted from R. Amit and C. Zott (2012), "Creating value through business model innovation," *MIT Sloan Management Review* 53, no. 3, 41–49.

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. *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.
4. *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.

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.⁴³

POPULAR BUSINESS MODELS

Given their critical importance to achieving competitive advantage, business models are constantly evolving. Below we will discuss some of the more popular business models:⁴⁴

- 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 for free 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. News providers such as *The New York Times* and *The Wall Street Journal* have created “pay walls” as a pay-as-you-go option.
- **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.⁴⁵ 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. 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*. Let’s look at the book publishing industry as 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, slide show 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 may already know 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 best-sellers, such as Dan Brown's novels, 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. In 2012 the Department of Justice determined 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.⁴⁶

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 two conceptual frameworks to help us understand competitive advantage in a more holistic fashion: the balanced scorecard and the triple bottom line. Exhibit 5.11 summarizes the concepts discussed.

EXHIBIT 5.11 / How to Measure and Assess Competitive Advantage

Competitive advantage is reflected in superior firm performance.

- We always assess competitive advantage *relative* to a benchmark, either using competitors or the industry average.
- Competitive advantage is a multifaceted concept.
- We can assess competitive advantage by measuring 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.

Several managerial implications emerged 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, 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, managers 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 / Consider This . . .

GIVEN MICROSOFT'S LACKLUSTER performance since 2000, "the once dominant company is now in turnaround mode. Over time, its competitive advantage turned into a competitive disadvantage, lagging behind Apple by a wide margin. Satya Nadella's strategic focus is to move Microsoft 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 starting at \$6.99 per month for personal use and \$69.99 for business use. Software applications can be accessed on any device, any time, with online storage, combined with Skype's global calling feature. Yet, Nadella needs to work



Satya Nadella, Microsoft CEO.

©Brian Smale/Microsoft/Getty Images

hard to ensure Microsoft's future viability because Windows and Office were cash cows for so long. They are still generating 40 percent of revenues and some 75 percent of profits, but both continue to decline. The problem he faces is that the gross margin of "classic" PC-based Office is 90 percent (due to Microsoft's "monopoly" position), while the gross margin for Office 365 is only around 50 percent. The cloud computing space with Amazon, Alphabet (Google), Apple, IBM, and others is fiercely competitive.⁴⁷

Questions

1. Why is it so hard to gain a competitive advantage? Why is it even harder to sustain a competitive advantage?
2. Looking at the different ways to assess competitive advantage discussed in this chapter, does Microsoft

have a competitive advantage over Apple using any of the approaches? Why or why not? In which approach is Microsoft looking "the best"? Explain.

3. 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?
4. How much longer do you think Apple can sustain its competitive advantage (not just over Microsoft, but in general)? Explain.

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

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 the "How to Conduct a Case Analysis" guide.

- All 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. 161)

Business model (p. 165)

Consumer surplus (p. 157)

Economic value created (p. 155)

Market capitalization (p. 153)

Opportunity costs (p. 160)

Producer surplus (p. 157)
 Profit (p. 157)
 Reservation price (p. 155)

Risk capital (p. 153)
 Shareholders (p. 153)
 Sustainable strategy (p. 164)

Total return to shareholders (p. 153)
 Triple bottom line (p. 164)
 Value (p. 157)

DISCUSSION QUESTIONS

- Domino's Pizza has been in business more than 50 years and claims to be "#1 Worldwide in Pizza Delivery" with over 13,000 locations. Visit the company's business-related website (www.biz.dominos.com) and read the "our strengths" section under the "Investors/Profile" tab. Does the firm focus on the accounting, shareholder, or economic perspective in describing its competitive advantage?
- 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?
- Interface, Inc., is discussed in Strategy Highlight 5.1. It may seem unusual for a business-to-business carpet company to be using a triple-bottom-line approach for its strategy. What other industries do you think could productively use this approach? How would it change customers' perceptions if it did?

ETHICAL/SOCIAL ISSUES

- You work as a supervisor in a manufacturing firm. The company has implemented a balanced-scorecard performance-appraisal system and a financial bonus for exceeding goals. A major customer order for 1,000 units needs to ship to a destination across the country by the end of the quarter, which is two days away from its close. This shipment, if it goes well, will have a major impact on both your customer-satisfaction goals and your financial goals.
 With 990 units built, a machine breaks. It will take two days to get the parts and repair the machine. You realize there is an opportunity to load the finished units on a truck tomorrow with paperwork for the completed order of 1,000 units. You can have an employee fly out with the 10 remaining parts and meet the truck at the destination city once the machinery has been repaired. The 10 units can be added to the pallet and delivered as a complete shipment of 1,000 pieces, matching the customer's order and your paperwork. What do you do?
- How do the perspectives on competitive advantage differ when comparing brick-and-mortar stores to online businesses (e.g., Best Buy versus Amazon, Barnes & Noble versus Amazon, Old Navy versus Threadless [noted in Strategy Highlight 5.2], Nordstrom versus Zappos, and so on)? Make recommendations to brick-and-mortar stores as to how they can compete more effectively with online firms. What conclusions do you draw?

SMALL GROUP EXERCISES

//// Small Group Exercise 1

As discussed in the chapter, a balanced scorecard views the performance of an organization through four lenses: customer, innovation and learning, internal

business, and financial. According to surveys from consulting firm Bain & Co., about 60 percent of firms in both public and private sectors have used a balanced scorecard for performance measures.⁴⁸

With your group, create a balanced scorecard for the business school at your university. You might start by looking at your school's web page for a mission or vision statement. Then divide up the four perspectives among the team members to develop key elements for each one. It may be helpful to remember the four key balanced-scorecard questions from the chapter:

1. How do customers view us? (Hint: First discuss the following: Who are the customers? The students? The companies that hire students? Others?)
2. How do we create value?
3. What core competencies do we need?
4. How do shareholders view us? (For public universities, the shareholders are the taxpayers who invest their taxes in the university. For private universities, the shareholders are the people or organizations that endow the university.)

//// Small Group Exercise 2

At the next big family gathering, you want to impress your grandparents with the innovative ideas you have learned in business school. They have decades of experience in investing in the stock market and, from their college days, believe that economic profitability is a business's primary responsibility. You would like to convince them that a triple-bottom-line approach is the modern path to stronger economic performance. With your group members, prepare a casual yet informative pitch you can use to persuade them. They probably will not listen for more than two minutes, so you know you have to be clear and concise with interesting examples. You may want to reinforce your argument by consulting "The Bottom Line of Corporate Good," published in *Forbes*.⁴⁹ Present your speech in whatever way your instructor requests—to your group, to the entire class, or in an online video.

mySTRATEGY

How Much Is an MBA Worth to You?

The myStrategy box at the end of Chapter 1 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 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 week-end. Let's also assume the price for tuition, books, and fees is \$30,000 for the full-time program and \$90,000 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.

ENDNOTES

1. For an in-depth discussion of Apple, see: Rothaermel, F.T., (2017), "Apple Inc.," Case MHE-FTR-051-1259927628, <http://create.mheducation.com/>; "Microsoft at middle age: Opening Windows," *The Economist*, April 4, 2015; "What Satya Nadella did at Microsoft," *The Economist*, March 16, 2017; and Mochizuki, T. (2017, Feb. 28), "Apple's next iPhone will have a curved screen," *The Wall Street Journal*.

2. This debate takes place in the following discourses, among others: Misangyi, V.F., H. Elms, T. Greckhamer, and J.A. Lepine (2006), "A new perspective on a fundamental debate: A multilevel approach to industry, corporate, and business unit effects," *Strategic Management Journal* 27: 571–590; McNamara, G., F. Aime, and P. Vaaler (2005), "Is performance driven by industry- or firm-specific factors? A reply to Hawawini, Subramanian, and Verdin," *Strategic Management Journal* 26:

1075–1081; Hawawini, G., V. Subramanian, and P. Verdin (2005), "Is performance driven by industry- or firm-specific factors? A new look at the evidence: A response to McNamara, Aime, and Vaaler," *Strategic Management Journal* 26: 1083–1086; Rumelt, R.P. (2003), "What in the world is competitive advantage?" *Policy Working Paper 2003-105*; McGahan, A.M., and M.E. Porter (2002), "What do we know about variance in accounting profitability?" *Management Science* 48:

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3. Rumelt, R.P. (2003), “What in the world is competitive advantage?” *Policy Working Paper 2003-105*.

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” the guide to conducting a case analysis that concludes Part 4 of the text.

6. The data for this section are drawn from Apple and Microsoft annual reports (various years) and a number of news articles, including: 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*, March 16, 2016; and “iPhone, therefore I am,” *The Economist*, January 30, 2016.

7. This example is based on the 2016 SEC 10-K reports for Apple and Microsoft. Connect provides the financial analysis conducted here as an exercise for a five-year time period, 2012–2016. This allows for more dynamic considerations.

8. The complete equation for Return on Invested Capital (ROIC) is: $ROIC = (\text{Net Profit} / \text{Revenue}) \times (\text{Revenue} / \text{Invested Capital}) = [1 - ((\text{COGS} / \text{Revenue}) + (\text{R\&D} / \text{Revenue}) + (\text{S\&GA} / \text{Revenue}) + (\text{Tax} / \text{Revenue}))] \times [1 / ((\text{Working Capital} / \text{Revenue}) + (\text{PPE} / \text{Revenue}) + (\text{Intangible Assets} / \text{Revenue}) + (\text{Long-term Marketable Securities} / \text{Revenue}) + (\text{Goodwill} / \text{Revenue}) + (\text{Other Assets} / \text{Revenue}))]$. The calculation of working capital turnover also demands “Long-term Assets / Revenue,” “Goodwill / Revenue,” and “Other Assets / Revenue.” This chart does not provide these values because they are not closely related to firm competitive

advantage. They are included, however, in the Teacher's Resource Manual.

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“Amazon to buy Whole Foods for \$13.7 billion: Whole Foods would continue to operate stores under its brand,” *The Wall Street Journal*, <https://www.wsj.com/articles/amazon-to-buy-whole-foods-for-13-7-billion-1497618446>. For industry response, see La Monica, P.R., and C. Isidore (2017, June 16), “Grocery stocks are getting clobbered after Amazon-Whole Foods deal,” *CNN Money*, <http://money.cnn.com/2017/06/16/investing/amazon-buying-whole-foods/index.html>.

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