Strategic Management, 11e

Dess, McNamara,
Eisner, & Sauerwald

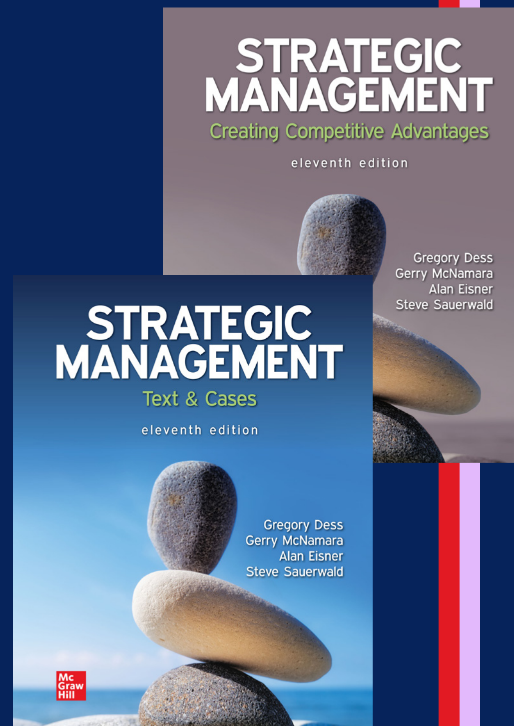


Table of Contents

A Note from the Authors

As strategy instructors, we have a challenging yet rewarding job. Students have to master fundamental strategy concepts and be able to synthesize all they've learned across their business curriculum in order to apply their knowledge to complicated, real-world challenges. This requires extensive, higher-order critical thinking skills to be successful.

We are excited to welcome Steve Sauerwald from the University of Illinois Chicago to the author team. Steve has developed an extensive publication record in the areas of strategic management and corporate governance. He pursues his research program in a global setting by examining how CEOs and boards of directors address important corporate challenges. His addition to the author team provides a global perspective, especially in the areas of strategic control and corporate governance.

We've worked hard to offer you and your students the most **readable**, **relevant,** and **rigorous** product on the market, while also helping students develop these critical workplace competency skills. How do we reinforce the **3 R's**?

- We focus on ***readability*** by using an engaging writing style with minimal jargon to ensure an effective learning experience.

- We incorporate ***relevance*** with numerous examples from management practice, employing current business and societal themes such as environmental sustainability, ethics, globalization, entrepreneurship, diversity, and data analytics.

- We stress ***rigor*** by drawing on the latest research by management scholars and insights from consultants to offer a current comprehensive view of strategic management issues.

With each revision, we invest an extensive amount of time carefully reviewing a wide variety of books, academic and practitioner journals, and the business press to incorporate the newest material and examples that reflect what students need to know and the challenges today's managers face.

Thank you for your feedback, support, and consideration.
Don't hesitate to reach out with any comments or questions!

Greg Dess
gdess@utdallas.edu

Gerry McNamara
mcnamara@broad.msu.edu

Alan Eisner
AEisner@clarku.edu

Steve Sauerwald
ssauerw@uic.edu

Revision Highlights

A few revision highlights to look forward to in the new eleventh edition:

Connected Strategies: We address how firms have successfully implemented new forms of connectivity with their customers, which involve low-friction, frequent, and customized interactions. This enables companies to be more proactive; that is, respond to customer needs as they arise—or even anticipate them. Thus, a win-win is created: Customers receive superior experience, and companies enhance their operational efficiency. A few examples include:

- (DTC) business model, which enables the firm to create closer relationships with its customers by, for instance, providing them with running advice through their fitness app as well as finding out more useful information about customer habits and preferences. (Chapter 2)
- Rolls Royce, a leading producer of jet engines, leveraging the power of its technology to better serve its customers. Sensors generate gigabytes of data that give customers real-time data on the many components in their engines. Compared to the old fixed-maintenance schedule, Rolls Royce is able to create significant cost savings by avoiding service that is too late or too early. Further, the sensor technologies benefit the firm's ongoing engineering efforts by providing information on how operational data can impact design and production. (Chapter 3)
- Wearable X, a Sydney-based startup, which helps yoga enthusiasts improve their yoga poses without the assistance of an expensive yoga instructor. How? Its Nandi pants feature woven-in wearable sensors that continuously measure body positions and provide feedback. Bluetooth technology connected to users' smartphone helps people attain correct yoga positions through gentle vibrations. (Chapter 12)

Integrative Themes: As with our previous editions, we include multiple integrative themes in this edition. These include the digital economy, environmental sustainability, and ethics. Many new content issues—as well as Strategy Spotlights (our sidebars)—are used throughout the text and cases to illustrate these important and timely topics central to the study of strategic management. Given the salient relevance of diversity in today's business environment, we devote additional content to it in text material as well as in strategy spotlights.

Insights from Executives: Our initial interview with Usman Ghani, an internationally recognized consultant who is Chairman of Conflucore, LLP, in our 10th edition was positively received by the market. We are happy to include his interview in this edition. Plus, we have also conducted interviews with three new individuals:

- Kelly Pfiel, former vice president of PepsiCo, shares her views on the timely topic of women in management (Chapter 4)
- Jasmine Crowe, social entrepreneur, provides tips learned through her experience creating Goodr Inc., a sustainable food-waste management company based in Atlanta, Georgia (Chapter 8)
- Jim Mapes, a former executive with several companies, including Perot Systems, shares his views on strategic leadership and his valuable learning experience working directly with H. Ross Perot (Chapter 12).

Revision Highlights

Over half of the 12 opening "Learning from Mistakes" vignettes that lead off each chapter are totally new. Unique to this text, they are all examples of what can go wrong, and they serve as an excellent vehicle for clarifying and reinforcing strategy concepts. After all, what can be learned if one simply admires perfection?

Over half of our 54 "Strategy Spotlights" (sidebar examples) are brand new, and many of the others have been thoroughly updated. We focus on bringing the most important strategy concepts to life in a concise and highly readable manner. Many Spotlights focus on hot issues that are critical in leading today's organizations--ethics, environmental sustainability, the digital economy, and connected strategies.

New and Updated Cases. 90% of our cases are new or have been carefully updated.
We feature 38 cases with comprehensive teaching notes to help with successful class implementation.

- Users of previous editions will note that while we have many familiar case names on the list; there are new and interesting problems that the companies face today.
- Instructors have told us that the cases are critical in order to provide students with an important opportunity to analyze familiar companies and realistic situations and then apply their critical-thinking skills to propose solutions.
- We've added a large selection of corresponding videos, PowerPoint presentations, Excel spreadsheets for financial tables, and Web links for more information on the case companies.

When paired with Connect® our online platform, students and instructors can take advantage of the adaptive reading and practice to ensure students are prepared for class, along with robust auto-graded homework activities including WhiteBoard videos, Video cases, Case Analyses, Case Exercises, Comprehension Cases, Application-Based Activities (mini-simulations) and testing to help develop students critical thinking and decision-making skills.

Brief Table of Contents

We publish multiple versions of our product, the first contains all the concepts and cases, the second is a concepts only version, and the third is an all-digital version. McGraw Hill is dedicated to Affordability & Outcomes. Our approach preserves academic freedom, so you can select the right materials for you and your students. Options ranging from adaptive digital learning platforms, digital/print bundles, eBooks, print rentals, Inclusive Access, and custom Create® course and pricing solutions.

Three unique separate chapters:
Chapters 4, 8, and 12.

Case Selection

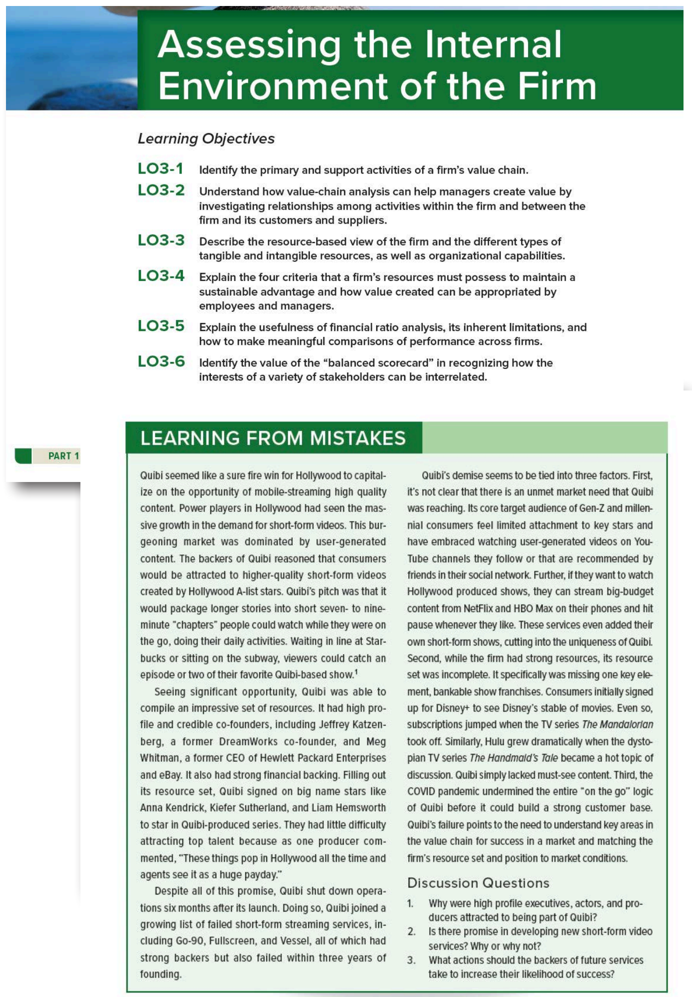
Instructors who use our products tell us that our discussion of the key theories and concepts, combined with current and interesting examples, enables their students to grasp the difficult, yet crucial content. A key component of most strategic management courses, however, is going beyond the discussion of concepts and theories. Our case studies provide students with an important opportunity to analyze real companies and realistic situations and apply their critical-thinking skills to solve problems. Our cases include:

1. Robin Hood
2. The Global Casino Industry: Emerging from the Pandemic (Updated)
3. Theorybridge.com: Making Academic Research Relevant to Practioners (New)
4. Dirty Laundry in the Fast Fashion Industry: H & M's Dilemma (New)
5. Pocket Radar: The Disruptive Innovator in the Sports Radar Gun Market (New)
6. Haribo and the Gummi Bear Business: A Sticky Situation (New)
7. Coinbase Global, Inc. (New)
8. Moet Hennessey Louis Vuitton (New)
9. Southwest Airlines: Can “Luv” Be a Competitive Advantage? (Updated)
10. JetBlue in 2022 (Updated)
11. Emirates Airline (Updated)
12. Ford: Traveling Two Roads (Updated)
13. General Motors: Plugging In? (Updated)
14. Lime: Is E-Bike Sharing the Next Uber? (Updated)
15. WW in 2022: Can Weight Watchers Shape Up? (Updated)
16. The Boston Beer Company: Competition is Brewing (Updated)
17. Heineken (Updated)
18. Tata Starbucks: A New Brew for India? (Updated)
19. Nintendo: Could the Switch Turn on Gamers? (Updated)
20. Apple, Inc.: Limits to Growth (Updated)
21. Samsung Electronics (Updated)
22. Zynga: Is the Game Over? (Updated)
23. Flipkart in the Indian E-Commerce Market (Updated)
24. eBay: Still Misunderstood (Updated)
25. Alibaba Group: Rivals at the Gate? (Updated)
26. Venmo: Better than Cash? (Updated)
27. Johnson & Johnson (Updated)
28. Procter & Gamble (Updated)
29. McDonald’s in 2022 (Updated)
30. United Way Worldwide (Updated)
31. Campbell: How to Keep the Soup Simmering (Updated)
32. World Wrestling Entertainment in 2022
33. Microfinance: Going Global… and Going Public?
34. Greenwood Resources: A Global Sustainable Venture in the Making
35. Kickstarter and Crowdfunding 2022 (Updated)
36. QVC in 2022 (Updated)
37. Cirque du Soleil in 2022 (Updated)
38. Walt Disney Company (New)

Readable

Readable
Relevant
Rigorous

We strive to present the course concepts and content in a way that allows the reader to easily access, understand, and recall key strategy topics. There are several elements we've included in the text to enhance readability.



Assessing the Internal Environment of the Firm

Learning Objectives

LO3-1 Identify the primary and support activities of a firm's value chain.
LO3-2 Understand how value-chain analysis can help managers create value by investigating relationships among activities within the firm and between the firm and its customers and suppliers.
LO3-3 Describe the resource-based view of the firm and the different types of tangible and intangible resources, as well as organizational capabilities.
LO3-4 Explain the four criteria that a firm's resources must possess to maintain a sustainable advantage and how value created can be appropriated by employees and managers.
LO3-5 Explain the usefulness of financial ratio analysis, its inherent limitations, and how to make meaningful comparisons of performance across firms.
LO3-6 Identify the value of the "balanced scorecard" in recognizing how the interests of a variety of stakeholders can be interrelated.

PART 1

LEARNING FROM MISTAKES

Quibi seemed like a sure fire win for Hollywood to capitalize on the opportunity of mobile-streaming high quality content. Power players in Hollywood had seen the massive growth in the demand for short-form videos. This burgeoning market was dominated by user-generated content. The backers of Quibi reasoned that consumers would be attracted to higher-quality short-form videos created by Hollywood A-list stars. Quibi's pitch was that it would package longer stories into short seven- to nine-minute "chapters" people could watch while they were on the go, doing their daily activities. Waiting in line at Starbucks or sitting on the subway, viewers could catch an episode or two of their favorite Quibi-based show.[1]

Seeing significant opportunity, Quibi was able to compile an impressive set of resources. It had high profile and credible co-founders, including Jeffrey Katzenberg, a former DreamWorks co-founder, and Meg Whitman, a former CEO of Hewlett Packard Enterprises and eBay. It also had strong financial backing. Filling out its resource set, Quibi signed on big name stars like Anna Kendrick, Kiefer Sutherland, and Liam Hemsworth to star in Quibi-produced series. They had little difficulty attracting top talent because as one producer commented, "These things pop in Hollywood all the time and agents see it as a huge payday."

Despite all of this promise, Quibi shut down operations six months after its launch. Doing so, Quibi joined a growing list of failed short-form streaming services, including Go-90, Fullscreen, and Vessel, all of which had strong backers but also failed within three years of founding.

Quibi's demise seems to be tied into three factors. First, it's not clear that there is an unmet market need that Quibi was reaching. Its core target audience of Gen-Z and millennial consumers feel limited attachment to key stars and have embraced watching user-generated videos on YouTube channels they follow or that are recommended by friends in their social network. Further, if they want to watch Hollywood produced shows, they can stream big-budget content from NetFlix and HBO Max on their phones and hit pause whenever they like. These services even added their own short-form shows, cutting into the uniqueness of Quibi. Second, while the firm had strong resources, its resource set was incomplete. It specifically was missing one key element, bankable show franchises. Consumers initially signed up for Disney+ to see Disney's stable of movies. Even so, subscriptions jumped when the TV series *The Mandalorian* took off. Similarly, Hulu grew dramatically when the dystopian TV series *The Handmaid's Tale* became a hot topic of discussion. Quibi simply lacked must-see content. Third, the COVID pandemic undermined the entire "on the go" logic of Quibi before it could build a strong customer base. Quibi's failure points to the need to understand key areas in the value chain for success in a market and matching the firm's resource set and position to market conditions.

Discussion Questions

1. Why were high profile executives, actors, and producers attracted to being part of Quibi?
2. Is there promise in developing new short-form video services? Why or why not?
3. What actions should the backers of future services take to increase their likelihood of success?

Writing style
We use a conversational style of writing and avoid jargon as much as possible.

Learning Objectives open each chapter and include corresponding icons in the margins to connect the concepts for the optimal student experience and retention.

Learning from Mistakes vignettes begin each chapter with an engaging case written in a conversational writing style that depicts an organization that has suffered a dramatic performance drop or failure. These intriguing examples of where things went wrong help students diagnose problems and require them to use their critical-thinking skills to answer the questions posed.

Relevant

We relate our content to actual business practice to allow students to see the applicability of course content and also to help them understand the relevance of strategy to their careers.

Examples from the corporate world and small businesses are used to illustrate nearly all topics discussed in the chapters.

Strategy Spotlight boxes relate actual strategic decisions to important and current societal themes, including environmental sustainability, ethics, globalization, entrepreneurship, and the digital economy throughout the text.

3.1 STRATEGY SPOTLIGHT

TESLA'S SERVICE CHALLENGE

SAP SE, one of Europe's largest tech companies, offers its employees a company car for both company and personal use as an employment perk. Not surprisingly, many of its employees are attracted to electric vehicles, with a sizable number expressing an interest in getting a Tesla. But SAP has a concern that has kept it from including Tesla in its list of available vehicles. Steffan Krautwasser, the director of SAP's corporate fleet program stated, "The interest in Teslas is extremely high, but we simply can't offer them at this point." SAP is not the only European company that has refused to include Teslas in their stables of company vehicles. This puts a major dent in Tesla's ability to grow its European business since 60 percent of new vehicles in Europe are purchased through a corporate channel, and Tesla is not widely available through these corporate car programs. For example, in Germany in 2020, Tesla only logged six thousand car sales, less than 0.5 percent of the total number of cars sold through corporate channels.

Why are corporate buyers reluctant to include Tesla as a brand in their car programs? It largely comes down to service. Corporations who offer corporate cars expect the car manufacturers to have service and repair locations close to corporate facilities so that workers can drop off cars and have repairs completed while they are at work. But Tesla has been reluctant to build dedicated service facilities, preferring instead to build mobile repair vans as they have done in the United States. For example, in Italy, Fiat operates 1,300 repair facilities located around the country, while VW operates 800 Italian repair facilities. By contrast, Tesla only has 4 repair facilities in Italy. Thus, to succeed in Europe, Tesla will need to either build a larger network of service facilities or change corporate customer perceptions regarding the value of mobile repair vans.

Tesla's experience demonstrates that firms need to construct value chains that include all elements that are key to customers to be able to meet the preferences of customers. Having effective logistics, operations and marketing may not be enough if you don't offer adequate post-sales service.

Sources: Wilkes, W. & Nicola, S. 2021. Tesla's European Headache. *Bloomberg Businessweek.* March 8: 14–15; Alvarez, S. 2021. Tesla can tap into a $360B market in Europe, but it has to address its service first. *teslarati.com.* March 5: np; and Alvarez, S. 2021. Tesla has a service problem, and it needs to get addressed as soon as possible. *teslarati.com.* August 31: np.

Reflecting on Career Implications . . .

This chapter addresses the importance of the internal environment for strategic managers. As a strategic manager, you should fully understand how you can leverage your competencies to both bring value to your firm and enhance your career opportunities.

- **The Value Chain:** It is important that you develop an understanding of your firm's value chain. What activities are most critical for attaining competitive advantage? Think of ways in which you can add value in your firm's value chain. How might your firm's support activities (e.g., information technology, human resource practices) help you accomplish your assigned tasks more effectively? How will you bring your value-added contribution to the attention of your superiors?
- **The Value Chain:** Consider the most important linkages between the activities you perform in your organization with other activities both within your firm and between your firm and its suppliers, customers, and alliance partners. Understanding and strengthening these linkages can contribute greatly to your career advancement within your current organization.
- **Resource-Based View of the Firm:** Are your skills and talents rare, valuable, and difficult to imitate, and do they have few substitutes? If so, you are in the better position to add value for your firm—and earn rewards and incentives. How can your skills and talents be enhanced to help satisfy these criteria to a greater extent? Get more training? Change positions within the firm? Consider career options at other organizations?
- **Balanced Scorecard:** Can you design a balanced scorecard for your life? What perspectives would you include in it? In what ways would such a balanced scorecard help you attain success in life?

Reflecting on Career Implications section (before the summary of every chapter) offers questions for students on how they can leverage key concepts to help them prepare for a job interview, to succeed with their current employers, and position themselves for success in the future.

Rigorous

We incorporate the latest theoretical concepts and empirical insights to provide a set of well-supported frameworks and analytical tools to help students become effective critical and strategic thinkers.

Research is clearly an important component of our presentation. In developing each edition of the text, we comprehensively review the relevant literatures to ensure that students get the latest and best supported insights on course topics.

Insights from Research boxes summarize and highlight key findings to give further insight on how to maintaining the effectiveness of an organization and better position itself for the current strategic environment. These boxes are featured in half of the chapters.

Issues for Debate close each chapter and provide alternative points of view to drive home important key strategy concepts. They include discussion questions which are great for stimulating in-class discussions and help students develop critical thinking skills.

ISSUE FOR DEBATE

One of the most difficult decisions firms in dynamic industries need to make is whether to invest primarily in one line of research and development or to spread its investments in multiple lines of research. Merck, a major pharmaceutical firm, faced this very choice recently. Up until recent years, Merck was a company that liked to spread its bets across a range of research directions and products. As Bernard Munos, a pharmaceutical R&D consultant stated, "Merck's R&D strategy was to bring as many drugs to market as they could."

Recently, the firm's focus shifted. Rather than developing a range of drugs, Merck has focused largely on one drug, Keytruda, a new type of cancer drug that leverages the patient's own immune system to fight cancer tumors. The drug is already marketed to treat skin, bladder, and other cancers, but the firm is looking for even more uses for it. Merck has expanded its oncology team, doctors who study and treat cancer, from 20 to 100 specialists. The firm has over 700 clinical trials examining how Keytruda could treat more than 30 types of cancer. Over half of Merck's budget for clinical trials is aimed at Keytruda. Merck's R&D head, Roger Perlmutter, put it bluntly to his staff when he said, "Whatever other projects you're working on, you can stop now, because we're doing this, and we're going to put a lot of muscle behind this."

Not all clinical trials have produced positive outcomes. The drug did not appear to extend the survival of gastric cancer patients. Still, the general news has been positive. Trials for kidney, brain, lung, and esophageal cancers have shown positive results. The sales of the drug have been growing rapidly, making up 9 percent of Merck's sales in 2017 and is projected to make up nearly 20 percent of the firm's sales in 2019, $8 billion in sales for the one drug alone. Even with its success, some wonder if Merck is investing too heavily in this one patented drug.

Discussion Questions

1. Why is Merck investing so heavily in this one drug? What are the risks and opportunities?
2. What are the long-term implications for Merck's culture, its human resources, and its knowledge base?
3. Is this a good "bet the company" decision? How do you think Merck should move forward from here?

Sources: Loftus, P. 2018. Why Merck is betting big on one cancer drug. *The Wall Street Journal*, April 15; Mishra, M. 2019. Merck's Keytruda tops $2 billion in quarterly sales, shares rise. *reuters.com*, February 1: np; and Gapper, J. 2019. Keytruda shows the high price of curing cancer. *ft.com*, February 13: np.

Click Here to View Chapter 3 Sample.

Mc Graw Hill create®

Truly effective teaching involves having the ability to push the boundaries of creativity and to fully leverage content and information in a way that enables student success. It's about providing students with affordable learning solutions that consists of the most current and relevant content for your courses.

Create® is McGraw Hill's custom publishing program that allows you to select and arrange your own course materials, adding chapters, cases, readings, articles, and even upload your own content to best match your unique teaching style and student learning outcomes. It offers the most extensive case collection and articles database around. World-class case providers include: Harvard, Darden, Ivey, MIT Sloan, NACRA, and more.

STEP 1. Go to http://mcgrawhillcreate.com/dess and click on "Explore this Collection."
Search by keyword or browse by discipline to find and add the cases related to strategic management. You can also browse Create's collections and add cases from sources like Harvard Business Publishing, Darden Business Publishing, and Ivey Publishing. All cases written to accompany the product are accompanied by a rich set of case teaching notes to help with successful class implementation.

STEP 2. Arrange and integrate your own content
Once you've selected the cases you want to use in your course, just drag and drop your selections into the order you prefer. You can also add section dividers to organize the cases and even seamlessly integrate your own content, such as a syllabus, class notes, or exercises.

STEP 3. Personalize your design and choose your format.
Put the finishing touches on your course content by choosing a cover, adding your course information, and then deciding on the best format for your students—color print, back-and-white print, or eBook.

STEP 4. Order your review copy and approve your project.
Request an eBook review copy and receive a free PDF sample, with its own ISBN, in minutes! Print review copies are also available and arrive in just days. After viewing your review copy, sign back in to Create and go to My Projects to approve and order your Create project.

Asset Alignment with Bloom's Taxonomy

Dess et al., Strategic Management 11e Text & Cases version

We Take Students Higher

As a learning science company, we create content that you can use to increase your students' higher order thinking skills. Within McGraw Hill Connect®, we tag the content accordingly so you can search, filter, assign, and report on each level. Each activity or piece of content can be associated with one or more levels of Bloom's taxonomy.

The chart below shows a few of the key activities and content types aligned with Bloom's taxonomy categories. Take your students to the next level with a variety of assignable content across the spectrum: from simple memorization to concept application.

	Smartbook 2.0®	McGraw Hill eBook & ReadAnywhere app	Whiteboard Video Cases	Case Analyses	Application-Based Activities	Financial Analyses	Case Exercises	Comprehension Cases
Create								
Evaluate					✓	✓	✓	✓
Analyze				✓	✓	✓	✓	✓
Apply			✓	✓	✓	✓	✓	✓
Understand	✓	✓	✓	✓	✓	✓	✓	✓
Remember	✓	✓	✓	✓	✓	✓	✓	✓

^ Higher order thinking skills V Lower order thinking skills

SmartBook 2.0®

Makes study time as productive and efficient as possible by identifying and closing knowledge gaps. SmartBook® identifies what an individual student knows and doesn't know based on the student's confidence level, responses to questions, and other factors. SmartBook® builds an optimal, personalized learning path for each student, so students spend less time on concepts they already understand and more time on those they don't.

McGraw Hill eBook & ReadAnywhere App

This digital textbook is automatically included with students' Connect access at no additional cost. The eBook is a full version of the print textbook; it includes resources like content reference sources, highlighting, notes, and term definitions. Students can also use the free ReadAnywhere mobile app for smartphones and tablets to access their eBook offline, so they can study anytime, anywhere, when it's convenient for them.

Whiteboard Video Cases

These brief, contemporary, and engaging videos offer dynamic, student-centered introductions, illustrations, and animations that guide students through challenging concepts with assignable assessment questions.

Case Analyses

Case analyses challenge students to analyze real-world business dilemmas, make sense out of the situation, and derive a plan of action. This immersive approach fosters students' ability to think critically and be better prepared for the real world. Thought-provoking discussion questions check the students' ability to apply the material and develop their workplace readiness skills.

Application-Based Activities

These highly interactive, automatically graded exercises provide an opportunity for students to practice their problem-solving skills and apply their knowledge to realistic scenarios. Students take on specific roles to complete strategy related tasks which involve multiple decision making paths. Students see the impact of their decisions immediately and feedback is provided along the way.

Financial Analyses

Financial Analyses evaluate students' understanding of the financial health of select companies via calculating ratios and annual growth. Multiple choice and short answer questions test students' understanding of these numbers as they relate to companies' strategic success or failure.

Case Exercises

Case exercises ask students to think strategically to arrive at pragmatic, analysis based recommendations for improving company performance. They have multiple components and include calculating financial ratios to assess a company's financial performance and balance sheet strength, identifying a company's strategy, and recommending actions to improve company performance. All cases come with teaching notes.

Comprehension Cases

Comprehension Cases ask students to review chapter concepts and apply them to real-world companies and situations. Providing yet another way to enhance students' critical thinking skills, these cases test understanding of text and, in certain instances, graphics that require students to analyze, evaluate, and disseminate information.

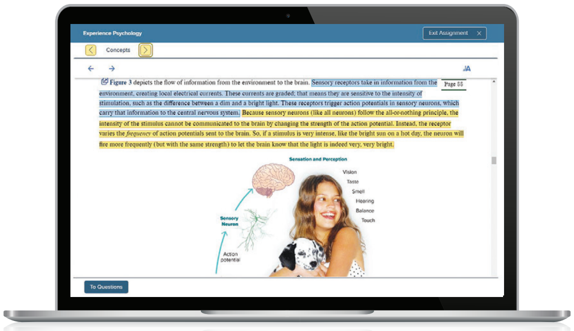
Mc Graw Hill connect®

Instructors
The Power of Connections

A complete course platform

Connect enables you to build deeper connections with your students through cohesive digital content and tools, creating engaging learning experiences. We are committed to providing you with the right resources and tools to support all your students along their personal learning journeys.

65%
Less Time Grading



Laptop: Getty Images; Woman/dog: George Doyle/Getty Images

Every learner is unique

In Connect, instructors can assign an adaptive reading experience with SmartBook® 2.0. Rooted in advanced learning science principles, SmartBook 2.0 delivers each student a personalized experience, focusing students on their learning gaps, ensuring that the time they spend studying is time well-spent.
mheducation.com/highered/connect/smartbook

Affordable solutions, added value

Make technology work for you with LMS integration for single sign-on access, mobile access to the digital textbook, and reports to quickly show you how each of your students is doing. And with our Inclusive Access program, you can provide all these tools at the lowest available market price to your students. Ask your McGraw Hill representative for more information.

Solutions for your challenges

A product isn't a solution. Real solutions are affordable, reliable, and come with training and ongoing support when you need it and how you want it. Visit **supportateverystep.com** for videos and resources both you and your students can use throughout the term.

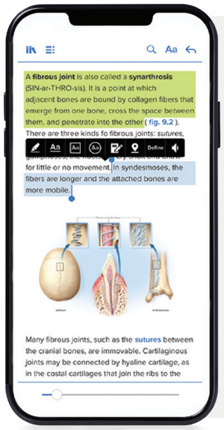
Students
Get Learning that Fits You

Effective tools for efficient studying

Connect is designed to help you be more productive with simple, flexible, intuitive tools that maximize your study time and meet your individual learning needs. Get learning that works for you with Connect.

Study anytime, anywhere

Download the free ReadAnywhere® app and access your online eBook, SmartBook® 2.0, or Adaptive Learning Assignments when it's convenient, even if you're offline. And since the app automatically syncs with your Connect account, all of your work is available every time you open it. Find out more at **mheducation.com/readanywhere**



"I really liked this app—it made it easy to study when you don't have your text-book in front of you."

- Jordan Cunningham, Eastern Washington University

iPhone: Getty Images

Everything you need in one place

Your Connect course has everything you need—whether reading your digital eBook or completing assignments for class—Connect makes it easy to get your work done.

Learning for everyone

McGraw Hill works directly with Accessibility Services Departments and faculty to meet the learning needs of all students. Please contact your Accessibility Services Office and ask them to email accessibility@mheducation.com, or visit **mheducation.com/about/accessibility** for more information.

McGraw Hill connect®

Because learning changes everything.®

We hear you... most students don't come to class prepared. With Connect's SmartBook 2.0 and its powerful personalized learning experience, you can give students the tools to change that. Have students learn the basics before they come to class, so you can be the educational expert that leads students to more "aha moments". With Connect you and your students get:

More **Personalized**

SmartBook 2.0 continually adapts to the individual student's needs, creating a personalized learning experience.

More **Productive**

SmartBook 2.0 creates a more productive learning experience by focusing students on the concepts they need to study the most.

More **Prepared**

SmartBook 2.0 helps students come to class better prepared so you can transform your class time from dull definitions to dynamic debates.

» **10 billion probes answered with over 200 million student interactions per month and counting.**

New in SmartBook 2.0

- **Mobile Learning:** SmartBook 2.0 is now available on all mobile smart devices – both online and offline.
- **Review Assignments:** SmartBook 2.0's new review feature makes preparing students for critical assessments a breeze. You can now easily create personalized assignments based on the content that each student struggles with.
- **Improved Student Recharge:** Students can now recharge their learning by accessing previously completed assignments with a personalized learning experience focused on areas that need extra attention.
- **Actionable Reports:** Improved instructor performance reporting and analytics to guide teaching and remediation at the class and student level.
- **Concept Resources:** We've revamped the remediation process within SmartBook 2.0 to give your students greater exposure to contextual material.
- **Assignable Sub-Topics:** You now have even more flexibility and control over assignment topics. Assign homework down to the sub-topic level.
- **Accessibility:** SmartBook 2.0 was built from the ground up with accessibility in mind. It includes appropriate color contrast, keyboard navigation, and screen reader usability to support students with accessibility needs. A full accessibility audit will be completed soon!
- **Pop-Up Tips & Prompts:** SmartBook 2.0 now includes clear pop-up and text prompts to guide students efficiently through the learning experience.

“

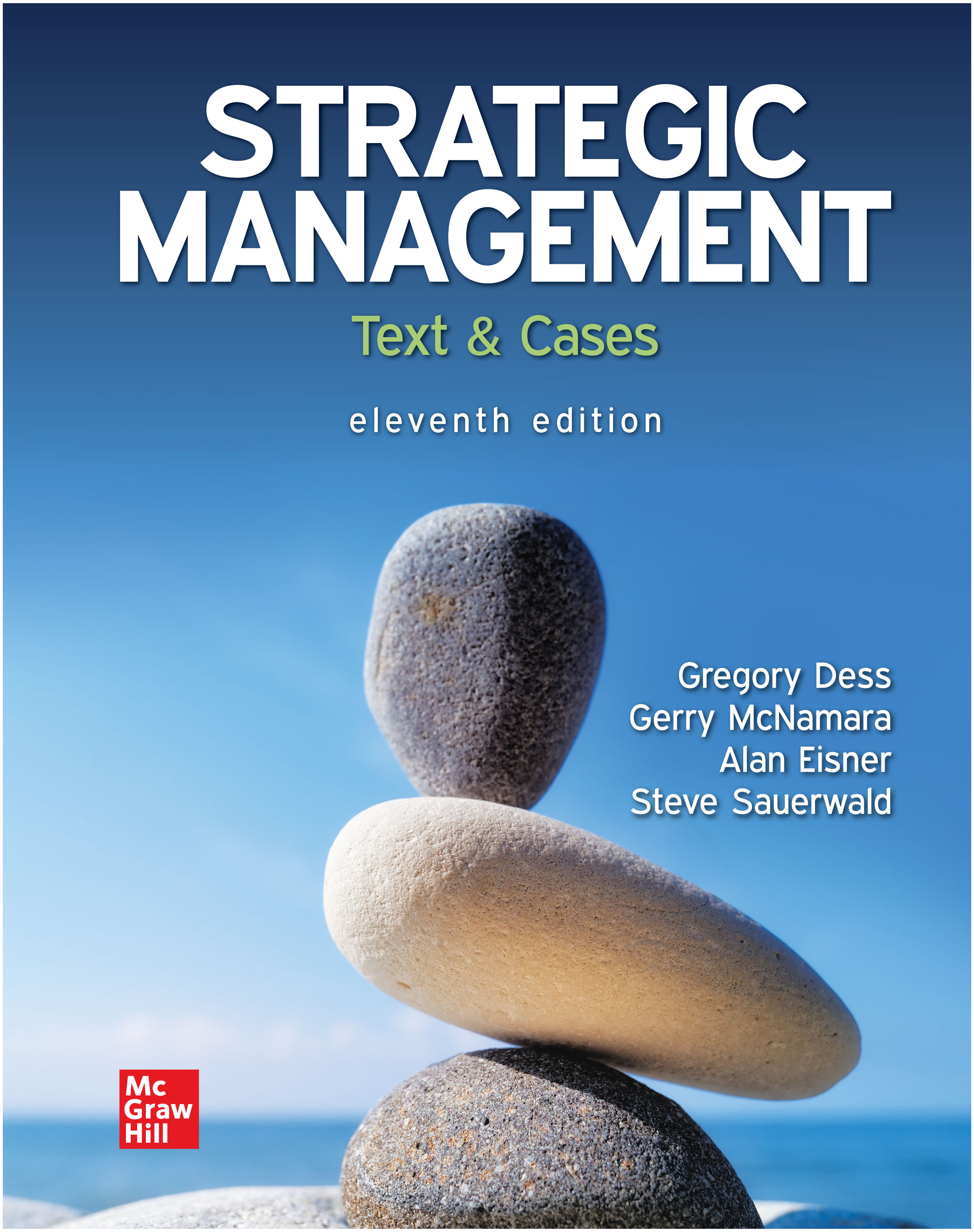
What Educators Think of Connect with SmartBook

I don't teach definitions anymore. I get right into analysis, news articles, and discuss the things that are exciting! I let Connect® teach the basics, so I can be the educational expert I trained to be.

Roger Butters, Higher Education Instructor, Economics

To learn more about SmartBook 2.0, visit
www.mheducation.com/highered/connect/smartbook

Sample Chapter Preview



Sample of Chapter 3:
Assessing the Internal Environment of the Firm
Strategic Management: Text & Cases 11e

CHAPTER

3

Anatoli Styf/Shutterstock

Assessing the Internal Environment of the Firm

Learning Objectives

LO3-1 Identify the primary and support activities of a firm's value chain.

LO3-2 Understand how value-chain analysis can help managers create value by investigating relationships among activities within the firm and between the firm and its customers and suppliers.

LO3-3 Describe the resource-based view of the firm and the different types of tangible and intangible resources, as well as organizational capabilities.

LO3-4 Explain the four criteria that a firm's resources must possess to maintain a sustainable advantage and how value created can be appropriated by employees and managers.

LO3-5 Explain the usefulness of financial ratio analysis, its inherent limitations, and how to make meaningful comparisons of performance across firms.

LO3-6 Identify the value of the "balanced scorecard" in recognizing how the interests of a variety of stakeholders can be interrelated.

We encourage you to reflect on how the concepts presented in this chapter can enhance your career success (see "Reflecting on Career Implications..." at the end of the chapter).

LEARNING FROM MISTAKES

Quibi seemed like a sure fire win for Hollywood to capitalize on the opportunity of mobile-streaming high quality content. Power players in Hollywood had seen the massive growth in the demand for short-form videos. This burgeoning market was dominated by user-generated content. The backers of Quibi reasoned that consumers would be attracted to higher-quality short-form videos created by Hollywood A-list stars. Quibi's pitch was that it would package longer stories into short seven- to nine-minute "chapters" people could watch while they were on the go, doing their daily activities. Waiting in line at Starbucks or sitting on the subway, viewers could catch an episode or two of their favorite Quibi-based show.[1]

Seeing significant opportunity, Quibi was able to compile an impressive set of resources. It had high profile and credible co-founders, including Jeffrey Katzenberg, a former DreamWorks co-founder, and Meg Whitman, a former CEO of Hewlett Packard Enterprises and eBay. It also had strong financial backing. Filling out its resource set, Quibi signed on big name stars like Anna Kendrick, Kiefer Sutherland, and Liam Hemsworth to star in Quibi-produced series. They had little difficulty attracting top talent because as one producer commented, "These things pop in Hollywood all the time and agents see it as a huge payday."

Despite all of this promise, Quibi shut down operations six months after its launch. Doing so, Quibi joined a growing list of failed short-form streaming services, including Go-90, Fullscreen, and Vessel, all of which had strong backers but also failed within three years of founding.

Quibi's demise seems to be tied into three factors. First, it's not clear that there is an unmet market need that Quibi was reaching. Its core target audience of Gen-Z and millennial consumers feel limited attachment to key stars and have embraced watching user-generated videos on YouTube channels they follow or that are recommended by friends in their social network. Further, if they want to watch Hollywood produced shows, they can stream big-budget content from NetFlix and HBO Max on their phones and hit pause whenever they like. These services even added their own short-form shows, cutting into the uniqueness of Quibi. Second, while the firm had strong resources, its resource set was incomplete. It specifically was missing one key element, bankable show franchises. Consumers initially signed up for Disney+ to see Disney's stable of movies. Even so, subscriptions jumped when the TV series *The Mandalorian* took off. Similarly, Hulu grew dramatically when the dystopian TV series *The Handmaid's Tale* became a hot topic of discussion. Quibi simply lacked must-see content. Third, the COVID pandemic undermined the entire "on the go" logic of Quibi before it could build a strong customer base. Quibi's failure points to the need to understand key areas in the value chain for success in a market and matching the firm's resource set and position to market conditions.

Discussion Questions

1. Why were high profile executives, actors, and producers attracted to being part of Quibi?
2. Is there promise in developing new short-form video services? Why or why not?
3. What actions should the backers of future services take to increase their likelihood of success?

In this chapter and the next, we discuss the resources and capabilities of the firm and how they serve as the foundation of a competitive advantage. In this chapter, we will place a heavy emphasis on the key value-creating activities (e.g., operations, marketing and sales, and procurement) that a firm must effectively manage and integrate in order to attain competitive advantages in the marketplace. However, firms not only must pay close attention to their own value-creating activities but also must maintain close and effective relationships with key organizations outside the firm boundaries, such as suppliers, customers, and alliance partners.

In Chapter 4, we further our discussion of internal analysis, focusing specifically on a firm's intellectual assets, which are the primary drivers of firm profitability and wealth generation in today's knowledge economy.

We will address the importance of human capital as well as why the management of knowledge professionals and knowledge itself is critical to firm success. We also explain how knowledge can be leveraged through both social capital and technology to create value.

Quibi's failure highlights two key issues in building and maintaining their resource sets. First, critical weaknesses in a firm's value chain can inhibit their success, even when they have some very strong resource areas. Second, a firm's value chain need and position in the market needs to fit with the environmental conditions they face. This points to the need to dynamically manage the firm's resources to ensure they match evolving market conditions.

We will begin our discussion of the firm's internal environment by looking at a value-chain analysis. This analysis gives us insight into a firm's operations and how the firm creates economic value.

VALUE-CHAIN ANALYSIS

value-chain analysis a strategic analysis of an organization that uses value-creating activities.

primary activities sequential activities of the value chain that refer to the physical creation of the product or service, its sale and transfer to the buyer, and its service after sale, including inbound logistics, operations, outbound logistics, marketing and sales, and service.

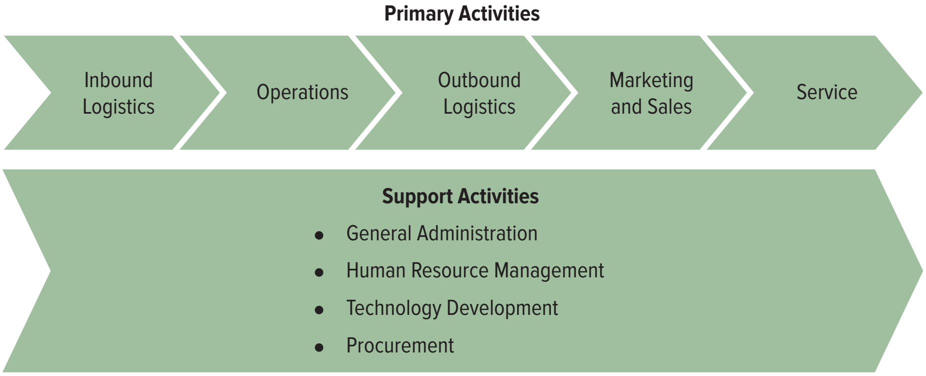
support activities activities of the value chain that either add value by themselves or add value through important relationships with both primary activities and other support activities, including procurement, technology development, human resource management, and general administration.

Value-chain analysis views the organization as a sequential process of value-creating activities. The approach is useful for understanding the building blocks of competitive advantage and was described in Michael Porter's seminal book *Competitive Advantage.*[2] Value is the amount that buyers are willing to pay for what a firm provides them and is measured by total revenue, a reflection of the price a firm's product commands and the quantity it can sell. A firm is profitable when the value it receives exceeds the total costs involved in creating its product or service. Creating value for buyers that exceeds the costs of production (i.e., margin) is a key concept used in analyzing a firm's competitive position.

Porter described two different categories of activities. First, five **primary activities**—inbound logistics, operations, outbound logistics, marketing and sales, and service—contribute to the physical creation of the product or service, its sale and transfer to the buyer, and its service after the sale. Second, **support activities**—procurement, technology development, human resource management, and general administration—either add value by themselves or add value through important relationships with both primary activities and other support activities. Exhibit 3.1 illustrates Porter's value chain.

To get the most out of value-chain analysis, view the concept in its broadest context, without regard to the boundaries of your own organization. That is, place your organization within a more encompassing value chain that includes your firm's suppliers, customers, and alliance partners. Thus, in addition to thoroughly understanding how value is created within the organization, be aware of how value is created for other organizations in the overall supply chain or distribution channel.[3]

EXHIBIT 3.1 The Value Chain: Primary and Support Activities



Source: Adapted from Porter, M. E. 1995, 1998. *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

Next, we'll describe and provide examples of each of the primary and support activities. Then we'll provide examples of how companies add value by means of relationships among activities inside the organization as well as activities outside the organization, such as those activities associated with customers and suppliers.[4]

Primary Activities

LO 3-1

Identify the primary and support activities of a firm's value chain.

Five generic categories of primary activities are involved in competing in any industry, as noted in Exhibit 3.2. Each category is divisible into a number of distinct activities that depend on the particular industry and the firm's strategy.[5]

Inbound Logistics **Inbound logistics** is primarily associated with receiving, storing, and distributing inputs to the product. It includes material handling, warehousing, inventory control, vehicle scheduling, and returns to suppliers.

inbound logistics receiving, storing, and distributing inputs of a product.

Many firms have implemented just-in-time (JIT) inventory systems to improve the efficiency of their inbound logistics. This benefits the firm by having inputs arrive at facilities just as they are needed to produce finished products, reducing inventory management costs and allowing firms to tailor the number and type of products produced to meet current market needs. As the COVID pandemic showed, JIT systems are vulnerable to any supply chain disruptions. Any hiccup in the availability of components will result in a complete shutdown of a plant's operations.

Operations **Operations** include all activities associated with transforming inputs into the final product form, such as machining, packaging, assembly, testing, printing, and facility operations.

operations all activities associated with transforming inputs into the final product form.

Creating environmentally friendly manufacturing is one way to use operations to achieve competitive advantage. Shaw Industries, a subsidiary of Berkshire Hathaway, is a world-class competitor in the floor-covering industry and is well known for its concern for the environment.[6] It has been successful in reducing the expenses associated with the disposal of dangerous chemicals and other waste products from its manufacturing operations. Its

EXHIBIT 3.2

The Value Chain: Some Factors to Consider in Assessing a Firm's Primary Activities

Inbound Logistics
• Location of distribution facilities to minimize shipping times. • Warehouse layout and designs to increase efficiency of operations for incoming materials.
Operations
• Efficient plant operations to minimize costs. • Efficient plant layout and workflow design. • Incorporation of appropriate process technology.
Outbound Logistics
• Effective shipping processes to provide quick delivery and minimize damages. • Shipping of goods in large lot sizes to minimize transportation costs.
Marketing and Sales
• Innovative approaches to promotion and advertising. • Proper identification of customer segments and needs.
Service
• Quick response to customer needs and emergencies. • Quality of service personnel and ongoing training.

Source: Adapted from Porter, M. E. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance.* New York: Free Press.

environmental endeavors have multiple payoffs. Shaw has received many awards for its recycling efforts—awards that enhance its reputation.

outbound logistics
collecting, storing, and distributing the product or service to buyers.

Outbound Logistics **Outbound logistics** is associated with collecting, storing, and distributing the product or service to buyers. These activities include finished goods, warehousing, material handling, delivery vehicle operation, order processing, and scheduling. The importance of outbound logistics is reflected in Costco's willingness to spend $1 billion to acquire Innovel, a logistics firm, to enhance its ability to stock, deliver, and install big-ticket items for customers.[7]

marketing and sales
activities associated with purchases of products and services by end users and the inducements used to get them to make purchases.

Marketing and Sales **Marketing and sales** activities are associated with purchases of products and services by end users and the inducements used to get them to make purchases.[8] They include advertising, promotion, sales force, quoting, channel selection, channel relations, and pricing.[9,10]

Consider product placement. This is a marketing strategy many firms are increasingly adopting to reach customers without resorting to traditional advertising. For example, Anheuser-Busch InBev faced a challenge in reaching customers who watch commercial-free programs on Netflix. AB InBev struck a deal with the producers of House of Cards where they agreed to provide a stock of the firm's products—including Budweiser, Stella Artois, and Shock Top—to be used as props in the show.[11]

service
actions associated with providing service to enhance or maintain the value of the product.

Service The **service** primary activity includes all actions associated with providing service to enhance or maintain the value of the product, such as installation, repair, training, parts supply, and product adjustment.

Let's examine how two retailers are providing exemplary customer service. At *Sephora.com,* a customer service representative taking a phone call from a repeat customer has instant access to what shade of lipstick the customer likes best. This will help the rep cross-sell by suggesting a matching shade of lip gloss. Such personalization is expected to build loyalty and boost sales per customer. Nordstrom, the Seattle-based department store chain, goes even a step further. It offers a cyber-assist: A service rep can take control of a customer's web browser and literally lead them to just the silk scarf that they are looking for. CEO Dan Nordstrom believes that such a capability will close enough additional purchases to pay for the $1 million investment in software.

Strategy Spotlight 3.1 discusses how Tesla is finding its vaunted design and reputation only go so far in helping it grow its market. The firm is finding that its limited service network has raised concerns for corporate car buyers, a key market segment in Europe.

Support Activities

Support activities in the value chain can be divided into four generic categories, general administration, human resource management technology development, and procurement (for more detail see Exhibit 3.3). Each category of the support activity is divisible into a number of distinct value activities that are specific to a particular industry. For example, technology development's discrete activities may include component design, feature design, field testing, process engineering, and technology selection. Similarly, procurement may include activities such as qualifying new suppliers, purchasing different groups of inputs, and monitoring supplier performance.

procurement
the function of purchasing inputs used in the firm's value chain, including raw materials, supplies, and other consumable items as well as assets such as machinery, laboratory equipment, office equipment, and buildings.

Procurement **Procurement** refers to the function of purchasing inputs used in the firm's value chain, not to the purchased inputs themselves.[12] Purchased inputs include raw materials, supplies, and other consumable items as well as assets such as machinery, laboratory equipment, office equipment, and buildings.[13,14]

Microsoft has improved its procurement process (and the quality of its suppliers) by providing formal reviews of its suppliers. One of Microsoft's divisions has extended the

3.1 STRATEGY SPOTLIGHT

TESLA'S SERVICE CHALLENGE

SAP SE, one of Europe's largest tech companies, offers its employees a company car for both company and personal use as an employment perk. Not surprisingly, many of its employees are attracted to electric vehicles, with a sizable number expressing an interest in getting a Tesla. But SAP has a concern that has kept it from including Tesla in its list of available vehicles. Steffan Krautwasser, the director of SAP's corporate fleet program stated, "The interest in Teslas is extremely high, but we simply can't offer them at this point." SAP is not the only European company that has refused to include Teslas in their stables of company vehicles. This puts a major dent in Tesla's ability to grow its European business since 60 percent of new vehicles in Europe are purchased through a corporate channel, and Tesla is not widely available through these corporate car programs. For example, in Germany in 2020, Tesla only logged six thousand car sales, less than 0.5 percent of the total number of cars sold through corporate channels.

Why are corporate buyers reluctant to include Tesla as a brand in their car programs? It largely comes down to service. Corporations who offer corporate cars expect the car manufacturers to have service and repair locations close to corporate facilities so that workers can drop off cars and have repairs completed while they are at work. But Tesla has been reluctant to build dedicated service facilities, preferring instead to build mobile repair vans as they have done in the United States. For example, in Italy, Fiat operates 1,300 repair facilities located around the country, while VW operates 800 Italian repair facilities. By contrast, Tesla only has 4 repair facilities in Italy. Thus, to succeed in Europe, Tesla will need to either build a larger network of service facilities or change corporate customer perceptions regarding the value of mobile repair vans.

Tesla's experience demonstrates that firms need to construct value chains that include all elements that are key to customers to be able to meet the preferences of customers. Having effective logistics, operations and marketing may not be enough if you don't offer adequate post-sales service.

Sources: Wilkes, W. & Nicola, S. 2021. Tesla's European Headache. *Bloomberg Businessweek.* March 8: 14–15; Alvarez, S. 2021. Tesla can tap into a $360B market in Europe, but it has to address its service first. *teslarati.com.* March 5: np; and Alvarez, S. 2021. Tesla has a service problem, and it needs to get addressed as soon as possible. *teslarati.com.* August 31: np.

EXHIBIT 3.3

The Value Chain: Some Factors to Consider in Assessing a Firm's Support Activities

General Administration

- Effective planning systems to attain overall goals and objectives.
- Excellent relationships with diverse stakeholder groups.
- Effective information technology to integrate value-creating activities.

Human Resource Management

- Effective recruiting, development, and retention mechanisms for employees.
- Quality relations with trade unions.
- Reward and incentive programs to motivate all employees.

Technology Development

- Effective R&D activities for process and product initiatives.
- Positive collaborative relationships between R&D and other departments.
- Excellent professional qualifications of personnel.
- Data analytics.

Procurement

- Procurement of raw material inputs to optimize quality and speed and to minimize the associated costs.
- Development of collaborative win–win relationships with suppliers.
- Analysis and selection of alternative sources of inputs to minimize dependence on one supplier.

Source: Adapted from Porter, M. E. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance.* New York: Free Press.

review process used for employees to its outside suppliers.[15] The employee services group, which is responsible for everything from travel to 401(k) programs to the on-site library, outsources more than 60 percent of the services it provides. Unfortunately, the employee services group was not giving suppliers enough feedback.

The evaluation system Microsoft developed helped clarify its expectations to suppliers. An executive noted: "We had one supplier—this was before the new system—that would have scored a 1.2 out of 5. After we started giving this feedback, and the supplier understood our expectations, its performance improved dramatically. Within six months, it scored a 4. If you'd asked me before we began the feedback system, I would have said that was impossible."[16]

In Strategy Spotlight 3.2, we discuss how Coke is reorienting its procurement of bottles to improve its sustainability performance and reputation.

technology development
activities associated with the development of new knowledge that is applied to the firm's operations.

Technology Development Every value activity embodies technology.[17] The array of technologies employed in most firms is very broad, ranging from technologies used to prepare documents and transport goods to those embodied in processes and equipment or the product itself.[18] **Technology development** related to the product and its features supports the entire value chain, while other technology development is associated with particular primary or support activities.

human resource management
activities involved in the recruiting, hiring, training, development, and compensation of all types of personnel.

Human Resource Management **Human resource management** consists of activities involved in the recruiting, hiring, training, development, and compensation of all types of personnel.[19] It supports both individual primary and support activities (e.g., hiring of engineers and scientists) and the entire value chain (e.g., negotiations with labor unions).[20]

Like all great service companies, JetBlue Airways Corporation is obsessed with hiring superior employees.[21] But the company found it difficult to attract college graduates to commit to careers as flight attendants. JetBlue developed a highly innovative recruitment program for flight attendants—a one-year contract that gives them a chance to travel, meet lots of people, and then decide what else they might like to do. It also introduced the idea of

3.2 STRATEGY SPOTLIGHT — ENVIRONMENTAL SUSTAINABILITY

COKE EMBRACES RECYCLED PLASTIC

In its 2020 report, an environmental advocacy group, Break Free From Plastic, named Coca-Cola as the world's biggest plastic polluter. The group's survey revealed that Coca-Cola bottles were the most frequently found litter on beaches, rivers, parks across the globe.

Coca-Cola is altering its procurement practices to address ecological concerns about its packaging. It had been emphasizing its increasing use of plant-based plastic bottling in place of petroleum-based plastic, but Alpa Sutaria, vice president and general manager of sustainability in Coca Cola's North America operating unit, argued that the use of plant-based plastic is not the answer. "The reality is that plant-based material, as it's turned into plastic, is really still a virgin plastic," Sutaria commented. Realizing this, Coke has shifted to a focus on using recycled plastic. The company has pledged to make 100 percent of its packaging recyclable by 2025 and to use at least 50 percent recycled materials in its bottles and cans by 2030. In 2020, Coke nationally launched a new bottle size, a 13.2-ounce bottle using 100 percent recycled PET. It has also changed its Sprite bottles from green to clear to make recycling easier. To implement these changes, Coke has had to make a significant shift in the suppliers the firm uses for its component material.

The aim is to lessen the carbon footprint of the firm, to reduce plastic waste, and to improve the firm's image with consumers who are increasingly concerned about environmental sustainability. "Given our scale and resources, we realize our unique opportunity and clear responsibility to make a positive difference in the global plastic crisis, bringing us closer to our ambitious World Without Waste goals," said Sutaria. While the firm may be partly driven by image concerns, their efforts will have a substantial ecological benefit. "You basically cut the carbon footprint in more than half by using 100% recycled," says Julia Attwood, leader of BloombergNEF's advanced materials research. And as an added bonus, recycled plastic is not significantly higher in cost than virgin plastic.

Sources: Elkin, E. 2021. Things go better with recycled plastic. *Bloomberg Businessweek*. February 15: 16; and Marcos, C. 2021. Coca-Cola launches new bottles made out of 100% recycled materials, aims to reduce plastic use by 20%. *usatoday.com.* February 9: np.

training a friend and employee together so they can share a job. With such employee-friendly initiatives, JetBlue has been very successful in attracting talent.

In their efforts to attract high-potential college graduates, some firms have turned to "program hiring." Facebook, Intuit, AB InBev, and others empower recruiters to make offers on the spot when they interview college students, without knowing what specific position they will fill. These firms search for candidates with attributes such as being a self-starter and a problem-solver, and make quick offers to preempt the market. Later, the new employees have matching interviews with various units in the firm to find the right initial position. The firms may lose out with some candidates who dislike the uncertainty of what their role will be, but they believe the candidates who are open to this type of hiring will be a better fit in a dynamic, creative workplace.[22]

General Administration **General administration** consists of a number of activities, including general management, planning, finance, accounting, legal and government affairs, quality management, and information systems. Administration (unlike the other support activities) typically supports the entire value chain and not individual activities.[23]

LO 3-2

Understand how value-chain analysis can help managers create value by investigating relationships among activities within the firm and between the firm and its customers and suppliers.

Although general administration is sometimes viewed only as overhead, it can be a powerful source of competitive advantage. In the case of a telephone service provider, for example, negotiating and maintaining ongoing relations with regulatory bodies can be among the most important activities for competitive advantage. Also, in some industries top management plays a vital role in dealing with important buyers.[24]

The strong and effective leadership of top executives can also make a significant contribution to an organization's success. For example, chief executive officers (CEOs) such as Jeff Bezos and Jack Ma have been credited with playing critical roles in the success of Amazon and Alibaba.

Information technology (IT) can also play a key role in enhancing the value that a company can provide its customers and, in turn, increasing its own revenues and profits. For example, Amazon leverages the power of its IT to predict purchasing patterns, allowing the firm to both effectively manage its inventory and make tailored recommendations for customers.

general administration general management, planning, finance, accounting, legal and government affairs, quality management, and information systems; activities that support the entire value chain and not individual activities.

Interrelationships among Value-Chain Activities within and across Organizations

We have defined each of the value-chain activities separately for clarity of presentation. Managers must not ignore, however, the importance of relationships among value-chain activities.[25] There are two levels: (1) **interrelationships** among activities within the firm and (2) relationships among activities within the firm and with other stakeholders (e.g., customers and suppliers) who are part of the firm's expanded value chain.[26]

interrelationships collaborative and strategic exchange relationships between value-chain activities either (a) within firms or (b) between firms. Strategic exchange relationships involve exchange of resources such as information, people, technology, or money that contribute to the success of the firm.

With regard to the first level, interrelationships, Lise Saari, former director of global employee research at IBM, said human resources needs to be integrated with the other functional areas of the firm. She put it this way: "HR [must be] a true partner of the business, with a deep and up-to-date understanding of business realities and objectives, and, in turn, [must ensure] HR initiatives fully support them at all points of the value chain."

With regard to the second level, Campbell's Soup implemented an electronic data interchange system to process orders from customers. This enabled the firm to improve the efficiency of outbound logistics.[27] However, it also helped Campbell manage the ordering of raw materials more effectively, improve its production scheduling, and help its customers better manage their inbound logistics operations.

Connected Strategies To better leverage the value of value-chain activities across organizations and between a firm and its customers, a number of firms are drawing on the potential of connected strategies. Having a connected strategy involves moving away from having episodic interactions with suppliers and customers to having ongoing connected relationships with them.[28] The advent of a range of technologies has facilitated new ways of connectivity, involving regular, low-friction, and customized interactions with suppliers and customers. These interactions increase the firm's ability to anticipate supplier challenges and customer needs, customize supply and delivery options to meet these challenges and needs, and even create new business models to optimally deliver value to customers. Niolaj Siggelkow and Christian Terwiesch identify four Rs of connected relationships:

- Recognize a customer need
- Request a desired option, the identification and selection of a product or service that satisfies the need
- Respond by creating a customized customer experience
- Repeat these interactions with customers.

Disney theme parks illustrate the central concepts of connected strategies with their MagicBands, a system where guests wear a band that both identifies who they are and allows them to make transactions in all of the park facilities. With these bands, Disney can learn what activities they've taken in, the food they've ordered, and who each of the guests are. As a result, Disney characters can know the names of the children they interact with, the Disney parks they've visited, and the activities they've done on the current trip, allowing them to personally connect with the guests they interact with. Disney can also use the system to suggest additional activities for the visiting guests. Guests can also use the system to seamlessly pay for items they buy as well as make reservations for restaurants and attractions, allowing the parks to provide higher levels of service of guests and handle more guests while still providing a great experience.

Strategy Spotlight 3.3 further illustrates how Rolls-Royce is leveraging the potential of connected strategies.

3.3 STRATEGY SPOTLIGHT — **CONNECTED STRATEGY AND DIGITAL ECONOMY**

ROLLS-ROYCE GETS MORE CONNECTED WITH ITS PRODUCTS AND CUSTOMERS

Rolls-Royce, one of the world's two leading producers of jet engines, is leveraging the power of technology to better serve its customers. Today's aircraft are loaded with sensors that generate gigabytes of data. Such data enables Rolls-Royce to have a very accurate assessment of the status and wear of individual parts within an engine. Previously, parts such as a fuel pump would need to be replaced on a fixed schedule. Now, Rolls-Royce can monitor the health of fuel pumps and shift the time of maintenance to when it's actually needed.

Compared to the old fixed maintenance schedule model, Rolls-Royce is able to create significant cost savings by avoiding either service that is too late or too early. First, if a pump failed prior to a scheduled maintenance time, customers would face avoidable engine problems and subsequent flight delays. Rolls-Royce's sensors largely avoid this problem by allowing the firm to notify airlines to schedule service before a true failure occurs. Second, airlines using a fixed maintenance schedule would inevitably service fuel pumps that were operating just fine and unlikely to suffer a failure, taking a plane out of service when it didn't really need to be grounded. With Rolls-Royce's systems, maintenance can be deferred until it is actually needed.

Its ability has enabled Rolls-Royce to change its revenue model from selling engines to selling flying hours, aligning incentives between itself and its customers. Moreover, when the engines are decommissioned and returned, Rolls-Royce knows the exact performance profile of each part and is able to recover 50 percent of the materials needed to remanufacture them for use as new components—reducing manufacturing costs and environmental waste. Sachin Gupta, Rolls-Royce's chief of Internet of Things (IoT) capabilities, outlines the firms's objective: "To leverage the data generated by IoT sensors to make better decisions and optimize customers'—and Rolls-Royce's—operations."

Further, by adding additional data sources such as technical logs, flight plans, forecast, and actual weather data, Rolls-Royce can provide insights to its customers for how to increase fuel efficiency, e.g., through improved flight schedules. Through such an approach, Rolls-Royce has increased the value it delivers to its customers while at the same time increasing its own efficiency.

The application of sensor technologies also benefits the firm's ongoing engineering efforts. The insights from operational data impacts design and production. "If the product [autonomously] sends feedback to our design team on the issues faced during its lifecycle, then they in turn can provide feedback to our production team," says Gupta. Engineering teams take this information into account as they redesign parts and designs to enhance the reliability of its engines.

Sources: Siggelkow, N. & Terwiesch, C. 2019. *Connected Strategy*. Harvard Business Review Press: Boston; Choudhury, A. & Mortleman, J. 2018. How IoT is turning Rolls-Royce into a data-fueled business. *i-cio.com.* January: np.

Applying the Value Chain to Service Organizations

The concepts of inbound logistics, operations, and outbound logistics suggest managing the raw materials that might be manufactured into finished products and delivered to customers. However, these three steps do not apply only to manufacturing. They correspond to any transformation process in which inputs are converted through a work process into outputs that add value. For example, accounting is a sort of transformation process that converts daily records of individual transactions into monthly financial reports. In this example, the transaction records are the inputs, accounting is the operation that adds value, and financial statements are the outputs.

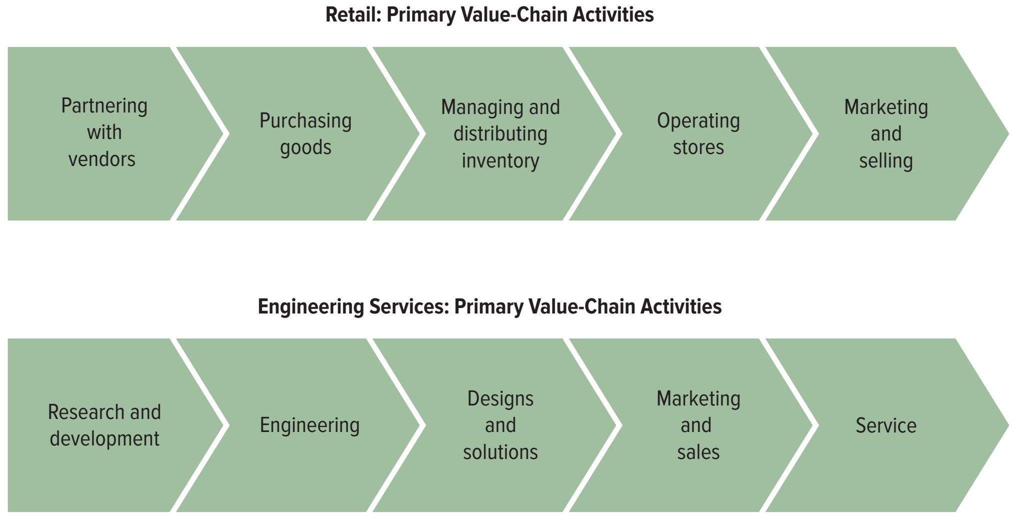
What are the operations, or transformation processes, of service organizations? At times, the difference between manufacturing and service is in offering a customized solution rather than mass production, as is common in manufacturing. For example, a travel agent adds value by creating an itinerary that includes transportation, accommodations, and activities that are customized to your budget and travel dates. A law firm renders services that are specific to a client's needs and circumstances. In both cases, the work process (operation) involves the application of specialized knowledge based on the specifics of a situation (inputs) and the outcome that the client desires (outputs).

The application of the value chain to service organizations suggests that the value-adding process may be configured differently depending on the type of business a firm is engaged in. As the preceding discussion on support activities suggests, activities such as procurement and legal services are critical for adding value. Indeed, the activities that may provide support only to one company may be critical to the primary value-adding activity of another firm.

Exhibit 3.4 provides two models of how the value chain might look in service industries. In the retail industry, there are no manufacturing operations. A firm such as Nordstrom adds value by developing expertise in the procurement of finished goods and by displaying them in its stores in a way that enhances sales. Thus, the value chain makes procurement activities (i.e., partnering with vendors and purchasing goods) a primary rather than a support activity. Operations refer to the task of operating Nordstrom's stores.

For an engineering services firm, research and development provides inputs, the transformation process is the engineering itself, and innovative designs and practical solutions are the outputs. The Beca Group, for example, is a large consulting firm with

EXHIBIT 3.4 Some Examples of Value Chains in Service Industries



about 3,500 employees, based in 20 offices throughout the Asia Pacific region. In its technology and innovation management practices, Beca strives to make the best use of the science, technology, and knowledge resources available to create value for a wide range of industries and client sectors. This involves activities associated with research and development, engineering, and creating solutions as well as downstream activities such as marketing, sales, and service. How the primary and support activities of a given firm are configured and deployed will often depend on industry conditions and whether the company is service- and/or manufacturing-oriented.

LO 3-3

Describe the resource-based view of the firm and the different types of tangible and intangible resources, as well as organizational capabilities.

RESOURCE-BASED VIEW OF THE FIRM

The **resource-based view (RBV) of the firm** combines two perspectives: (1) the internal analysis of phenomena within a company and (2) an external analysis of the industry and its competitive environment.[29] It goes beyond the traditional SWOT (strengths, weaknesses, opportunities, threats) analysis by integrating internal and external perspectives. The ability of a firm's resources to confer competitive advantage(s) cannot be determined without taking into consideration the broader competitive context. A firm's resources must be evaluated in terms of how valuable, rare, and hard they are for competitors to duplicate. Otherwise, the firm attains only competitive parity.

resource-based view (RBV) of the firm perspective that firms' competitive advantages are due to their endowment of strategic resources that are valuable, rare, costly to imitate, and costly to substitute.

A firm's strengths and capabilities—no matter how unique or impressive—do not necessarily lead to competitive advantages in the marketplace. The criteria for whether advantages are created and whether or not they can be sustained over time will be addressed later in this section. Thus, the RBV is a very useful framework for gaining insights as to why some competitors are more profitable than others. As we will see later in the book, the RBV is also helpful in developing strategies for individual businesses and diversified firms by revealing how core competencies embedded in a firm can help it exploit new product and market opportunities.

In the two sections that follow, we will discuss the three key types of resources that firms possess (summarized in Exhibit 3.5): tangible resources, intangible resources, and organizational capabilities. Then we will address the conditions under which such assets and capabilities can enable a firm to attain a sustainable competitive advantage.[30]

Types of Firm Resources

Firm resources are all assets, capabilities, organizational processes, information, knowledge, and so forth, controlled by a firm that enable it to develop and implement value-creating strategies.

tangible resources organizational assets that are relatively easy to identify, including physical assets, financial resources, organizational resources, and technological resources.

Tangible Resources **Tangible resources** are assets that are relatively easy to identify. They include the physical and financial assets an organization uses to create value for its customers. Among them are financial resources (e.g., a firm's cash, accounts receivable, and its ability to borrow funds); physical resources (e.g., the company's plant, equipment, and machinery as well as its proximity to customers and suppliers); organizational resources (e.g., the company's strategic planning process and its employee development, evaluation, and reward systems); and technological resources (e.g., trade secrets, patents, and copyrights).

Many firms are finding that high-tech, computerized training has dual benefits: It develops more-effective employees and reduces costs at the same time. Employees at FedEx take computer-based job competency tests every 6 to 12 months.[31] The 90-minute computer-based tests identify areas of individual weakness and provide input to a computer database of employee skills—information the firm uses in promotion decisions.

EXHIBIT 3.5

The Resource-Based View of the Firm: Resources and Capabilities

Tangible Resources	
Financial	• Firm's cash account and cash equivalents • Firm's capacity to raise equity • Firm's borrowing capacity
Physical	• Modern plant and facilities • Favorable manufacturing locations • State-of-the-art machinery and equipment
Technological	• Data analytic algorithms • Patents, copyrights, trademarks
Organizational	• Effective strategic planning processes • Excellent evaluation and control systems
Intangible Resources	
Human	• Experience and capabilities of employees • Trust • Managerial skills • Firm-specific practices and procedures
Innovation and creativity	• Technical and scientific skills • Innovation capacities
Reputation	• Brand name • Reputation with customers for quality and reliability • Reputation with suppliers for fairness, non–zero-sum relationships

Organizational Capabilities

- Firm competencies or skills the firm employs to transfer inputs to outputs
- Capacity to combine tangible and intangible resources, using organizational processes to attain desired end

EXAMPLES:

- Outstanding customer service
- Excellent product development capabilities
- Innovativeness of products and services
- Ability to hire, motivate, and retain human capital

Sources: Adapted from Barney, J. B. 1991. Firm resources and sustained competitive advantage. *Journal of Management,* 17: 101; Grant, R. M. 1991. *Contemporary Strategy Analysis.* Cambridge, England: Blackwell Business, 100–102; and Hitt, M. A., Ireland, R. D., and R. E. Hoskisson. 2001. *Strategic Management: Competitiveness and Globalization* (4th ed.). Cincinnati: South-Western College Publishing.

Intangible Resources Much more difficult for competitors (and, for that matter, a firm's own managers) to account for or imitate are **intangible resources**, which are typically embedded in unique routines and practices that have evolved and accumulated over time. These include human resources (e.g., experience and capability of employees, trust, effectiveness of work teams, managerial skills), innovation resources (e.g., technical and scientific expertise, ideas), and reputation resources (e.g., brand name, reputation with suppliers for fairness and with customers for reliability and product quality).[32] A firm's culture may also be a resource that provides competitive advantage.[33]

intangible resources organizational assets that are difficult to identify and account for and are typically embedded in unique routines and practices, including human resources, innovation resources, and reputation resources.

For an example of how a firm can leverage the value of intangible resources, we turn to Harley-Davidson. You might not think that motorcycles, clothes, and toys have much in common. Yet Harley-Davidson has entered all of these product and service markets by capitalizing on its strong brand image—a valuable intangible resource.[34] It has used that image to sell accessories, clothing, and toys.

Social networking sites have the potential to play havoc with a firm's reputation. Consider the unfortunate situation Comcast faced when one of its repairmen fell asleep on the job—and it went viral:

> Ben Finkelstein, a law student, had trouble with the cable modem in his home. A Comcast cable repairman arrived to fix the problem. However, when the technician had to call the home office for a key piece of information, he was put on hold for so long that he fell asleep on Finkelstein's couch. Outraged, Finkelstein made a video of the sleeping technician and posted it on YouTube. The clip became a hit—with more than a million viewings. And, for a long time, it undermined Comcast's efforts to improve its reputation for customer service.[35]

organizational capabilities the competencies and skills that a firm employs to transform inputs into outputs.

Organizational Capabilities **Organizational capabilities** are not specific tangible or intangible assets, but rather the competencies or skills that a firm employs to transform inputs into outputs.[36] In short, they refer to an organization's capacity to deploy tangible and intangible resources over time and generally in combination and to leverage those capabilities to bring about a desired end.[37] Examples of organizational capabilities are outstanding customer service, excellent product development capabilities, superb innovation processes, and flexibility in manufacturing processes.[38]

In Strategy Spotlight 3.4, we examine how Zara is incorporating new technologies and processes to enhance its capability to meet evolving customer needs.

3.4 STRATEGY SPOTLIGHT — DIGITAL ECONOMY

ZARA EMBRACES TECHNOLOGY TO MEET THE ONLINE RETAILER CHALLENGE

In the retailing business, the big threat to physical stores is the online retailers taking their customers. This includes highly diversified online retailers, such as Amazon, and specialty online retailers, such as Blue Nile, an online jewelry retailer. For Zara, the global clothing retailer, the threat comes from a number of online clothing retailers, such as Zalando, a German online apparel retailer, and ASOS, a British online competitor.

Brick and mortar retailers, such as Zara, are responding by offering both online and in-store experiences. A key challenge for these firms is to combine these operations to provide a seamless experience for customers. One of the services these firms can provide is "click and collect," where customers purchase online but pick up their orders in the store. Zara has been very successful in drawing its online customers into the store with one-third of its online orders being picked up at a Zara store.

Integrating this process into store operations is a major operational challenge that requires resource investments. Stores have to determine how they get products that are ordered online to the stores, where to store items ordered online, whether they will offer dedicated checkout lines to online customers, and whether the firm will rely on personal interactions or automated systems to serve online customers. Zara has developed strong competencies to get products from warehouses to the store, but it has struggled to provide effective in-store service to customers. For example, a customer going to a London Zara found that there was no signage directing him where to pick up his order. He was directed to wait in a regular checkout line only to be told, after a long wait in line, that he had to go to an upstairs counter to get his order. There, an attendant found his order form and retrieved his items by hand.

Zara's solution is to leverage automation to better serve customers. In outlets with large online business, Zara plans to create online kiosks where customers can enter or scan their order code from their online order. Behind-the-scenes robots would then retrieve the order from a small warehouse built into the store and deliver the order to a drop box where the customer would pick it up. Industry analysts note that this is a big change for a retailer since it requires the firm to reconfigure store and storeroom space and develop clear procedures. As Adam Silverman, SVP of marketing at Theatro stated, "throwing robots at the problem should only happen when the processes have been ironed out." Though challenging, Zara believes that the development of a resource set that meets the needs of both in-store and online customers best gives the firm the ability to fend off the online retailer challenge.

Sources: Neumann, J. 2018. Zara turns to robots for in-store pickup. *Wall Street Journal,* March 6: B4; and Anderson, G. 2018. Zara is 'throwing robots' at its click-and-collect problem. *forbes.com,* March 14: np.

Firm Resources and Sustainable Competitive Advantages

As we have mentioned, resources alone are not a basis for competitive advantages, nor are advantages sustainable over time.[39] In some cases, a resource or capability helps a firm to increase its revenues or to lower costs but the firm derives only a temporary advantage because competitors quickly imitate or substitute for it.[40]

For a resource to provide a firm with the potential for a sustainable competitive advantage, it must have four attributes.[41] First, the resource must be valuable in the sense that it exploits opportunities and/or neutralizes threats in the firm's environment. Second, it must be rare among the firm's current and potential competitors. Third, the resource must be difficult for competitors to imitate. Fourth, the resource must have no strategically equivalent substitutes. These criteria are summarized in Exhibit 3.6. We will now discuss each of these criteria.

LO 3-4

Explain the four criteria that a firm's resources must possess to maintain a sustainable advantage and how value created can be appropriated by employees and managers.

Is the Resource Valuable? Organizational resources can be a source of competitive advantage only when they are valuable. Resources are valuable when they enable a firm to formulate and implement strategies that improve its efficiency or effectiveness. The SWOT framework suggests that firms improve their performance only when they exploit opportunities or neutralize (or minimize) threats.

The fact that firm attributes must be valuable in order to be considered resources (as well as potential sources of competitive advantage) reveals an important complementary relationship among environmental models (e.g., SWOT and five-forces analyses) and the resource-based model. Environmental models isolate those firm attributes that exploit opportunities and/or neutralize threats. Thus, they specify what firm attributes may be considered as resources. The resource-based model then suggests what additional characteristics these resources must possess if they are to develop a sustained competitive advantage.

Is the Resource Rare? If competitors or potential competitors also possess the same valuable resource, it is not a source of a competitive advantage because all of these firms have the capability to exploit that resource in the same way. Common strategies based on such a resource would give no one firm an advantage. For a resource to provide competitive advantages, it must be uncommon, that is, rare relative to other competitors.

This argument can apply to bundles of valuable firm resources that are used to formulate and develop strategies. Some strategies require a mix of multiple types of resources—tangible assets, intangible assets, and organizational capabilities. If a particular bundle of firm resources is not rare, then relatively large numbers of firms will be able to conceive of and implement the strategies in question. Thus, such strategies will not be a source of competitive advantage, even if the resource in question is valuable.

EXHIBIT 3.6

Four Criteria for Assessing Sustainability of Resources and Capabilities

Is the resource or capability . . .	Implications
Valuable?	• Neutralize threats and exploit opportunities
Rare?	• Not many firms possess
Difficult to imitate?	• Physically unique • Path dependency (how accumulated over time) • Causal ambiguity (difficult to disentangle what it is or how it could be re-created) • Social complexity (trust, interpersonal relationships, culture, reputation)
Difficult to substitute?	• No equivalent strategic resources or capabilities

Can the Resource Be Imitated Easily? Inimitability (difficulty in imitating) is a key to value creation because it constrains competition.[42] If a resource is inimitable, then any profits generated are more likely to be sustainable.[43] Having a resource that competitors can easily copy generates only temporary value.[44] This has important implications. Since managers often fail to apply this test, they tend to base long-term strategies on resources that are imitable. Iowa Beef Processors (IBP) became the first meatpacking company in the United States to modernize by building a set of assets (automated plants located in cattle-producing states) and capabilities (low-cost "disassembly" of carcasses) that earned returns on assets of 1.3 percent in the 1970s. By the late 1980s, however, ConAgra and Cargill had imitated these resources, and IBP's profitability fell by nearly 70 percent, to 0.4 percent.

Clearly, an advantage based on inimitability won't last forever. Competitors will eventually discover a way to copy most valuable resources. However, managers can forestall them and sustain profits for a while by developing strategies around resources that have at least one of the following four characteristics.[45]

Physical Uniqueness The first source of inimitability is physical uniqueness, which by definition is inherently difficult to copy. A beautiful resort location, mineral rights, or Pfizer's pharmaceutical patents simply cannot be imitated. Many managers believe that several of their resources may fall into this category, but on close inspection, few do.

Strategy Spotlight 3.5 discusses a key physically unique resource, transmission bandwidth, that T-Mobile is leveraging to improve its competitive position in the mobile phone market.

path dependency
a characteristic of resources that is developed and/or accumulated through a unique series of events.

Path Dependency A greater number of resources cannot be imitated because of what economists refer to as **path dependency**. This simply means that resources are unique and therefore scarce because of all that has happened along the path followed in their development and/or accumulation. Competitors cannot go out and buy these resources quickly and easily; they must be built up over time in ways that are difficult to accelerate.

The Gerber Products Co. brand name for baby food is an example of a resource that is potentially inimitable. Recreating Gerber's brand loyalty would be a time-consuming process that competitors could not expedite, even with expensive marketing campaigns. Ashley,

3.5 STRATEGY SPOTLIGHT

T-MOBILE LOCKS IN VALUABLE 5G BANDWIDTH

T-Mobile was a laggard in the mobile phone service industry. The firm was languishing in fourth place in an industry that was commonly seen as a three firm industry. AT&T had tried to buy the firm, but regulators had blocked the deal. The firm's market position was so weak that Apple didn't even bother to produce a version of the iPhone for its network.

T-Mobile saw an opportunity to change the game with the shift to 5G technology. T-Mobile aggressively purchased mid spectrum 5G bandwidth. With frequency between 2 and 6 gigahertz, midrange 5G signals transmit farther than higher frequency signals and can handle more data than lower frequency. Thus, midrange signals are the sweet spot for 5G transmission, and T-Mobile controls more of it than any of its rivals. Verizon and AT&T have had to take a different approach, providing low-band 5G for most of its coverage map and super fast high-frequency 5G in major cities. As a result, T-Mobile has been seen as having the better overall network. "For many years, Verizon hammered its competitors time and time again with 'the best network' and their big red coverage map. Well, the map is looking quite magenta today in terms of 5G coverage around the country," commented Sasha Javid, COO of BitPath, a wireless data company. This impression is born out in assessments made by RootMetrics, a provider of mobile network performance information, that indicated T-Mobile's network is top overall in 5G availability and speed.

With this aggressive move into 5G, T-Mobile has grown and is now the second largest mobile service provider in the United States. In locking in the scarce resource of mid-range 5G spectrum, T-Mobile is likely to be a strong player in the mobile market for the foreseeable future.

Sources: Moritz, S. 2021. T-Mobile races ahead on 5G in the U.S. *Bloomberg Businessweek*. January 25: 50; and Kellen. 2022. T-Mobile dominates major 5G report, but here comes Verizon and AT&T. *droidlife.com*. February 16: np.

the home furnishings retailer, has found that controlling all steps of its distribution system has allowed it to develop specific competencies that are difficult to match. It has developed specially designed racks in its distribution centers and proprietary inventory management systems that would take time to match. It has also tasked its truck drivers to be "Ashley Ambassadors," building relationships with furniture store managers and employees. Both these operational and relational resources have built up over time and can't be imitated overnight.[46] Also, a crash R&D program generally cannot replicate a successful technology when research findings cumulate. Clearly, these path-dependent conditions build protection for the original resource. The benefits from experience and learning through trial and error cannot be duplicated overnight.

Causal Ambiguity The third source of inimitability is termed **causal ambiguity**. This means that would-be competitors may be thwarted because it is impossible to disentangle the causes (or possible explanations) of either what the valuable resource is or how it can be re-created. What is the root of 3M's innovation process? You can study it and draw up a list of possible factors. But it is a complex, unfolding (or folding) process that is hard to understand and would be hard to imitate.

causal ambiguity
a characteristic of a firm's resources that is costly to imitate because a competitor cannot determine what the resource is and/or how it can be re-created.

Often, causally ambiguous resources are organizational capabilities, involving a complex web of social interactions that may even depend on particular individuals. When trying to compete with Google, many competitors, such as Yahoo! and Twitter, have found it hard to match Google's ability to innovate and launch new products. Most acknowledge this is tied to Google's ability to hire the best talent and the culture of creativity within the firm, but firms find it very challenging to identify the specific set of actions Google took to build its image and culture or how to match it.

Social Complexity A firm's resources may be imperfectly inimitable because they reflect a high level of **social complexity**. Such phenomena are typically beyond the ability of firms to systematically manage or influence. When competitive advantages are based on social complexity, it is difficult for other firms to imitate them.

social complexity
a characteristic of a firm's resources that is costly to imitate because the social engineering required is beyond the capability of competitors, including interpersonal relations among managers, organizational culture, and reputation with suppliers and customers.

A wide variety of firm resources may be considered socially complex. Examples include interpersonal relations among the managers in a firm, its culture, and its reputation with its suppliers and customers. In many of these cases, it is easy to specify how these socially complex resources add value to a firm. Hence, there is little or no causal ambiguity surrounding the link between them and competitive advantage.

The Edelman Trust Barometer, a comprehensive survey of public trust, has found that trust and transparency are more critical than ever.[47] In recent years, Edelman has found that impressions of openness, sincerity, and authenticity were more important to corporate reputation in the United States than the quality of products and services. This means trust affects tangible things such as supply chain partnerships and long-term customer loyalty. People want to partner with you because they have heard you are a credible company built through a culture of trust. In a sense, being a great company to work for also makes you a great company to work with.

Are Substitutes Readily Available? The fourth requirement for a firm resource to be a source of sustainable competitive advantage is that there must be no strategically equivalent valuable resources that are themselves not rare or inimitable. Two valuable firm resources (or two bundles of resources) are strategically equivalent when each one can be exploited separately to implement the same strategies.

Substitutability may take at least two forms. First, though it may be impossible for a firm to imitate exactly another firm's resource, it may be able to substitute a similar resource that enables it to develop and implement the same strategy. Clearly, a firm seeking to imitate another firm's high-quality top management team would be unable to copy the team exactly.

However, it might be able to develop its own unique management team. Though these two teams would have different ages, functional backgrounds, experience, and so on, they could be strategically equivalent and thus substitutes for one another.

Second, very different firm resources can become strategic substitutes. For example, internet retailers, such as Amazon.com, compete as substitutes for brick-and-mortar stores. The result is that resources such as premier retail locations become less valuable. In a similar vein, ride sharing services, such as Uber and Lyft, have undercut the value of the licenses held by traditional taxi service providers. For example, a New York City taxi medallion sold for a whopping $1.3 million in 2013. By 2021, prices had plunged to about $80,000.[48,49]

To recap this section, recall that resources and capabilities must be rare and valuable as well as difficult to imitate or substitute in order for a firm to attain competitive advantages that are sustainable over time.[50] Exhibit 3.7 illustrates the relationship among the four criteria of sustainability and shows the competitive implications.

In firms represented by the first row of Exhibit 3.7, managers are in a difficult situation. When their resources and capabilities do not meet any of the four criteria, it would be difficult to develop any type of competitive advantage, in the short or long term. The resources and capabilities they possess enable the firm neither to exploit environmental opportunities nor to neutralize environmental threats. In the second and third rows, firms have resources and capabilities that are valuable as well as rare, respectively. However, in both cases the resources and capabilities are not difficult for competitors to imitate or substitute. Here, the firms could attain some level of competitive parity. They could perform on par with equally endowed rivals or attain a temporary competitive advantage. But their advantages would be easy for competitors to match. It is only in the fourth row, where all four criteria are satisfied, that competitive advantages can be sustained over time.

Leveraging Artificial Intelligence to Increase the Sustainability of an Advantage Increasingly, firms are using artificial intelligence and leveraging data to better understand customer preferences, the use of products, and the operations of the firm to build a foundation for sustainable advantage. In effectively using data on customer preferences, efficient procedures, and other aspects of business, firms are able to build an understanding of markets and firm operations that existing competitors and new firms will find difficult to attack. Artificial intelligence, sometimes referred to as machine learning, involves the use of sophisticated programs that crunch vast volumes of data to find patterns and produce improved predictions or evaluations without the direct intervention of a human programmer or statistician.[51]

The advantages that these firms are building have a high degree of sustainability because they combine aspects of path dependence and social complexity that make imitation of

EXHIBIT 3.7

Criteria for Sustainable Competitive Advantage and Strategic Implications

Is a Resource or Capability...				
Valuable?	**Rare?**	**Difficult to Imitate?**	**Without Substitutes?**	**Implication for Competitiveness**
No	No	No	No	Competitive disadvantage
Yes	No	No	No	Competitive parity
Yes	Yes	No	No	Temporary competitive advantage
Yes	Yes	Yes	Yes	Sustainable competitive advantage

Source: Adapted from Barney, J. B. 1991. Firm resources and sustained competitive advantage. *Journal of Management,* 17: 99–120.

their resource bases a challenge for later moving firms. These firms collect and analyze large swathes of data in a real time basis to improve their efficiency and ability to meet customer needs. In doing so, the firm develops a path dependent advantage based on its superior understanding of its markets and firm operations. Newcomers to the market and slow moving rivals find it difficult to match or substitute for the leading firm's knowledge. These actions also allow these knowledge intensive firms to develop a reputation and brand identity as the most efficient and effective service provider.

Additionally, the advantages that these firms develop are difficult to imitate because the resource sets the firms develop are often socially complex. First, knowledge intensive firms typically tailor their entire value chain around the collection and leveraging of the data they collect, making it a challenge for later movers to match the leading firm unless the follower invests in a similar set of co-specialized resources. Second, these firms develop strong cultures emphasizing continuous improvement and communication patterns between managers that support their efforts to improve efficiencies and their ability to meet customer needs on an ongoing basis.

Together, the path dependent and socially complex resource sets these firms develop provide a basis for a sustainable advantage. The goal for these firms is to develop a virtuous cycle where their analytical models allow them to improve products and services which then stimulates greater demand. The firm's increased sales then provides more data on which to improve products and services even more, triggering increased sales once again, and so on. The following are some examples of firms that are exploiting the value of data and artificial intelligence to build a strong and sustainable advantage.

- Farming may not be the first industry that comes to mind when people think of the benefits of big data and analytical models, but Monsanto is working to build a business in model-driven farming. The firm has invested over $1.5 billion to build a set of resources and capabilities that will allow it to identify optimal timing, location, and seed to optimize crop yields. Monsanto's models use data on historic yields, sensors built into tractors, other ground-based sensors, weather data, and field data collected in satellite imagery. As they build this business, they will be able to further optimize their models, further increasing the yields for farmers.
- Technology company inVia Robotics is taking the use of models into the warehouse. In major fulfillment centers, humans who compile products to fill orders can walk upward of 15 miles a day. InVia is building robots to replace human pickers in these centers. Their approach is to leverage the power of data to offer more efficient solutions for fulfillment centers. The company uses data on the popularity and degree of association of products to optimally locate the shelving of all of the products in the fulfillment center. For example, data indicated that sunscreen and sunglasses should be located closely together since they are often ordered together. As a result, inVia robots can minimize the time spent zooming around the warehouse finding all of the products for an offer. Moving forward, every order provides additional information on more optimally structuring the layout of the fulfillment center. As customer demand changes, the system will aid in providing information on both warehouse layout and input on changes in the quantity and model of products needed in the warehouse.
- Ping An, a Chinese financial services company, is using artificial intelligence to spot dishonesty by potential borrowers. Customers wanting to borrow money answer questions about their income and repayment plans on a video application app. Ping An has developed an algorithm that monitors 50 facial expressions to assess borrower dishonesty. The company uses artificial intelligence to compile an overall score on a borrower based on their facial expressions and to regularly improve the predictive ability of the model by comparing the facial expressions of prior customers with their repayment behavior.

While these firms compete in very different markets, they show how leveraging the power of artificial intelligence opens up a powerful path for a firm to build a sustainable advantage.

The Generation and Distribution of a Firm's Profits: Extending the Resource-Based View of the Firm

The resource-based view of the firm is useful in determining when firms will create competitive advantages and enjoy high levels of profitability. However, it has not been developed to address how a firm's profits (often referred to as "rents" by economists) will be distributed to a firm's management and employees or other stakeholders such as customers, suppliers, or governments.[52] This is an important issue because firms may be successful in creating competitive advantages that can be sustainable for a period of time. However, much of the profits can be retained (or "appropriated") by a firm's employees and managers or other stakeholders instead of flowing to the firm's owners (i.e., the stockholders).[53]

Consider Viewpoint DataLabs, a subsidiary of software giant Computer Associates that makes sophisticated three-dimensional models and textures for film production houses, video games, and car manufacturers. This example will help to show how employees are often able to obtain (or "appropriate") a high proportion of a firm's profits:

> Walter Noot, head of production, was having trouble keeping his highly skilled employees happy with their compensation. Each time one of them was lured away for more money, everyone would want a raise. "We were having to give out raises every six months—30 to 40 percent—then six months later they'd expect the same. It was a big struggle to keep people happy."[54]

Here, much of the profits is being generated by the highly skilled professionals working together. They are able to exercise their power by successfully demanding more financial compensation. In part, management has responded favorably because they are united in their demands and their work involves a certain amount of social complexity and causal ambiguity—given the complex, coordinated efforts that their work entails.

Four factors help explain the extent to which employees and managers will be able to obtain a proportionately high level of the profits that they generate:[55]

- ***Employee bargaining power.*** If employees are vital to forming a firm's unique capability, they will earn disproportionately high wages. For example, marketing professionals may have access to valuable information that helps them to understand the intricacies of customer demands and expectations, or engineers may understand unique technical aspects of the products or services. Additionally, in some industries such as consulting, advertising, and tax preparation, clients tend to be very loyal to individual professionals employed by the firm, instead of to the firm itself. This enables them to "take the clients with them" if they leave. This enhances their bargaining power.
- ***Employee replacement cost.*** If employees' skills are idiosyncratic and rare (a source of resource-based advantages), they should have high bargaining power based on the high cost required by the firm to replace them. For example, Jony Ive, formerly head of design at Apple, was seen as a critical player that the firm would find hard to replace. To keep him happy at the firm, Apple reportedly once gave him a $30 million bonus and $25 million in stock.[56]
- ***Employee exit costs.*** This factor may tend to reduce an employee's bargaining power. An individual may face high personal costs when leaving the organization. Thus, that individual's threat of leaving may not be credible. In addition, an employee's expertise may be firm-specific and of limited value to other firms.

- ***Manager bargaining power.*** Managers' power is based on how well they create resource-based advantages. They are generally charged with creating value through the process of organizing, coordinating, and leveraging employees as well as other forms of capital such as plant, equipment, and financial capital (addressed further in Chapter 4). Such activities provide managers with sources of information that may not be readily available to others.

In addition to employees and managers, other stakeholder groups can also appropriate a portion of the rents generated by a firm. If, for example, a critical input is controlled by a monopoly supplier or if a single buyer accounts for most of a firm's sales, this supplier's or buyer's bargaining power can greatly erode the potential profits of a firm. Similarly, excessive taxation by governments can also reduce what is available to a firm's stockholders.

EVALUATING FIRM PERFORMANCE: TWO APPROACHES

This section addresses two approaches to use when evaluating a firm's performance. The first is **financial ratio analysis**, which, generally speaking, identifies how a firm is performing according to its balance sheet, income statement, and market valuation. As we will discuss, when performing a financial ratio analysis, you must take into account the firm's performance from a historical perspective (not just at one point in time) as well as how it compares with both industry norms and key competitors.[57]

financial ratio analysis
a method of evaluating a company's performance and financial well-being through ratios of accounting values, including short-term solvency, long-term solvency, asset utilization, profitability, and market value ratios.

The second perspective takes a broader stakeholder view. Firms must satisfy a broad range of stakeholders, including employees, customers, and owners, to ensure their long-term viability. Central to our discussion will be a well-known approach—the balanced scorecard popularized by Robert Kaplan and David Norton.[58]

Financial Ratio Analysis

The beginning point in analyzing the financial position of a firm is to compute and analyze five different types of financial ratios:

- Short-term solvency or liquidity
- Long-term solvency measures
- Asset management (or turnover)
- Profitability
- Market value

Exhibit 3.8 summarizes each of these five ratios.

Appendix 1 to Chapter 13 (the Case Analysis chapter) presents detailed definitions for and discussions of each of these types of ratios as well as examples of how each is calculated.

LO 3-5

Explain the usefulness of financial ratio analysis, its inherent limitations, and how to make meaningful comparisons of performance across firms.

A meaningful ratio analysis must go beyond the calculation and interpretation of financial ratios.[59] It must include how ratios change over time as well as how they are interrelated. For example, a firm that takes on too much long-term debt to finance operations will see an immediate impact on its indicators of long-term financial leverage. The additional debt will negatively affect the firm's short-term liquidity ratio (i.e., current and quick ratios) since the firm must pay interest and principal on the additional debt each year until it is retired. Additionally, the interest expenses deducted from revenues reduce the firm's profitability.

A firm's financial position should not be analyzed in isolation. Important reference points are needed. We will address some issues that must be taken into account to make financial analysis more meaningful: historical comparisons, comparisons with industry norms, and comparisons with key competitors.

EXHIBIT 3.8 A Summary of Five Types of Financial Ratios

I. Short-term solvency, or liquidity, ratios

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

$$\text{Cash ratio} = \frac{\text{Cash}}{\text{Current liabilities}}$$

II. Long-term solvency, or financial leverage, ratios

$$\text{Total debt ratio} = \frac{\text{Total assets} - \text{Total equity}}{\text{Total assets}}$$

$$\text{Debt-equity ratio} = \frac{\text{Total debt}}{\text{Total equity}}$$

$$\text{Equity multiplier} = \frac{\text{Total assets}}{\text{Total equity}}$$

$$\text{Times interest earned ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

$$\text{Cash coverage ratio} = \frac{\text{EBIT} + \text{Depreciation}}{\text{Interest}}$$

III. Asset utilization, or turnover, ratios

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$$

$$\text{Days' sales in inventory} = \frac{\text{365 days}}{\text{Inventory turnover}}$$

$$\text{Receivables turnover} = \frac{\text{Sales}}{\text{Accounts receivable}}$$

$$\text{Days' sales in receivables} = \frac{\text{365 days}}{\text{Receivables turnover}}$$

$$\text{Total asset turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

$$\text{Capital intensity} = \frac{\text{Total assets}}{\text{Sales}}$$

IV. Profitability ratios

$$\text{Profit margin} = \frac{\text{Net income}}{\text{Sales}}$$

$$\text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$$

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Total equity}}$$

$$\text{ROE} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

V. Market value ratios

$$\text{Price-earnings ratio} = \frac{\text{Price per share}}{\text{Earnings per share}}$$

$$\text{Market-to-book ratio} = \frac{\text{Market value per share}}{\text{Book value per share}}$$

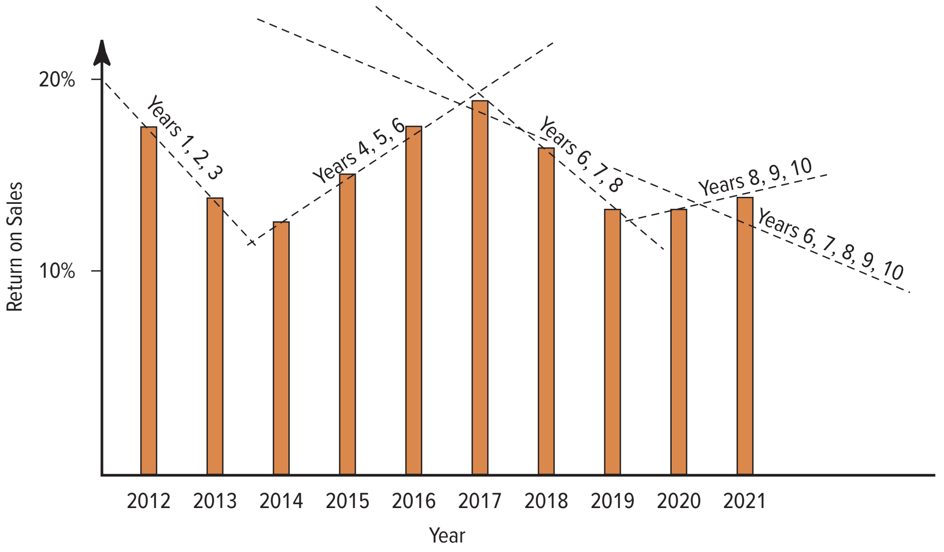
Historical Comparisons When you evaluate a firm's financial performance, it is very useful to compare its financial position over time. This provides a means of evaluating trends. For example, Apple Inc. reported revenues of $366 billion and net income of $95 billion in 2021. Virtually all firms would be very happy with such remarkable financial success. These figures represent a stunning annual growth in revenue and net income of 33 percent and 67 percent, respectively, over Apple's 2020 figures. Had Apple's revenues and net income in 2021 been $275 billion and $55 billion, respectively, it would still be a very large and highly profitable enterprise. However, such performance would have significantly damaged Apple's market valuation and reputation as well as the careers of many of its executives.

Exhibit 3.9 illustrates a 10-year period of return on sales (ROS) for a hypothetical company. As indicated by the dotted trend lines, the rate of growth (or decline) differs substantially over time periods.

Comparison with Industry Norms When you are evaluating a firm's financial performance, remember also to compare it with industry norms. A firm's current ratio or profitability may appear impressive at first glance. However, it may pale when compared with industry standards or norms.

Comparing your firm with all other firms in your industry assesses relative performance. Banks often use such comparisons when evaluating a firm's creditworthiness. Exhibit 3.10 includes a variety of financial ratios for three industries: computers, grocery stores, and skilled-nursing facilities. Why is there such variation among the financial ratios

EXHIBIT 3.9 Historical Trends: Return on Sales (ROS) for a Hypothetical Company



for these three industries? There are several reasons. With regard to the collection period, grocery stores operate mostly on a cash basis, hence a very short collection period. Computer manufacturers sell their output to retailers and corporate customers on terms such as 2/15 net 45, which means they give a 2 percent discount on bills paid within 15 days and start charging interest after 45 days. Skilled-nursing facilities also have a longer collection period than grocery stores because they typically rely on payments from insurance companies.

The industry norms for return on assets also highlight differences among these industries. Health care facilities, in general, are limited in their pricing structures by Medicare/Medicaid regulations and by insurance reimbursement limits, resulting in very low profit ratios. Grocers operate with somewhat slim margins but can differentiate themselves to some degree to attract customers. Computer manufacturers have the ability to more substantially differentiate products and generate higher returns if their products have superior performance.

Comparison with Key Competitors Recall from Chapter 2 that firms with similar strategies are members of a strategic group in an industry. Furthermore, competition is more intense

EXHIBIT 3.10 How Financial Ratios Differ across Industries

Financial Ratio	Computers	Grocery Stores	Skilled-Nursing Facilities
Quick ratio (times)	1.0	0.5	0.9
Current ratio (times)	1.7	1.4	1.2
Total liabilities to net worth (%)	58.9	119.1	187.4
Collection period (days)	49.6	4.6	24.1
Assets to sales (%)	66.7	35.9	220.4
Return on assets (%)	6.2	6.5	0.2

Source: Dun, Mergent and Bradstreet. 2020. Key Business Ratios, SIC 3571 (Computers); SIC 5411 (Grocery Stores); SIC 8051 (Skilled-Nursing Facilities). mergentkbr.com.

among competitors within groups than across groups. Thus, you can gain valuable insights into a firm's financial and competitive position if you make comparisons between a firm and its most direct rivals. Consider a firm trying to diversify into the highly profitable pharmaceutical industry. Even if it was willing to invest several hundred million dollars, it would be virtually impossible to compete effectively against industry giants such as Pfizer and Merck. These two firms had 2021 revenues of $81 billion and $49 billion, respectively, and both had R&D budgets of over $12.0 billion.[60]

LO 3-6

Identify the value of the "balanced scorecard" in recognizing how the interests of a variety of stakeholders can be interrelated.

Integrating Financial Analysis and Stakeholder Perspectives: The Balanced Scorecard

It is useful to see how a firm performs over time in terms of several ratios. However, such traditional approaches can be a double-edged sword.[61] Many important transactions—investments in research and development, employee training and development, and advertising and promotion of key brands—may greatly expand a firm's market potential and create significant long-term shareholder value. But such critical investments are not reflected positively in short-term financial reports. Financial reports typically measure expenses, not the value created. Thus, managers may be penalized for spending money in the short term to improve their firm's long-term competitive viability.

Now consider another perspective. A manager may destroy the firm's future value by dissatisfying customers, depleting the firm's stock of good products coming out of R&D, or damaging the morale of valued employees. Such budget cuts, however, may lead to very good short-term financials. The manager may look good in the short run and even receive credit for improving the firm's performance. In essence, such a manager has mastered "denominator management," whereby decreasing investments makes the return on investment (ROI) ratio larger, even though the actual return remains constant or shrinks.

The Balanced Scorecard: Description and Benefits To provide a meaningful integration of the many issues that come into evaluating a firm's performance, Kaplan and Norton developed a **balanced scorecard**.[62] This gives top managers a fast but comprehensive view of the business. In a nutshell, it includes financial measures that reflect the results of actions already taken, but it complements these indicators with measures of customer satisfaction, internal processes, and the organization's innovation and improvement activities—operational measures that drive future financial performance.

balanced scorecard a method of evaluating a firm's performance using performance measures from the customer, internal, innovation and learning, and financial perspectives.

The balanced scorecard enables managers to consider their business from four key perspectives: customer, internal, innovation and learning, and financial. These are briefly described in Exhibit 3.11.

Customer Perspective Clearly, how a company is performing from its customers' perspective is a top priority for management. The balanced scorecard requires that managers translate their general mission statements on customer service into specific measures that reflect the factors that really matter to customers. For the balanced scorecard to work, managers must articulate goals for four key categories of customer concerns: time, quality, performance and service, and cost.

customer perspective measures of firm performance that indicate how well firms are satisfying customers' expectations.

EXHIBIT 3.11 The Balanced Scorecard's Four Perspectives

- How do customers see us? (customer perspective)
- What must we excel at? (internal business perspective)
- Can we continue to improve and create value? (innovation and learning perspective)
- How do we look to shareholders? (financial perspective)

Internal Business Perspective Customer-based measures are important. However, they must be translated into indicators of what the firm must do internally to meet customers' expectations. Excellent customer performance results from processes, decisions, and actions that occur throughout organizations in a coordinated fashion, and managers must focus on those critical internal operations that enable them to satisfy customer needs. The internal measures should reflect business processes that have the greatest impact on customer satisfaction. These include factors that affect cycle time, quality, employee skills, and productivity.

internal business perspective measures of firm performance that indicate how well firms' internal processes, decisions, and actions are contributing to customer satisfaction.

Innovation and Learning Perspective Given the rapid rate of markets, technologies, and global competition, the criteria for success are constantly changing. To survive and prosper, managers must make frequent changes to existing products and services as well as introduce entirely new products with expanded capabilities. A firm's ability to do well, from an innovation and learning perspective, is more dependent on its intangible than tangible assets. Three categories of intangible assets are critically important: human capital (skills, talent, and knowledge), information capital (information systems, networks), and organization capital (culture, leadership).

innovation and learning perspective measures of firm performance that indicate how well firms are changing their product and service offerings to adapt to changes in the internal and external environments.

Financial Perspective Measures of financial performance indicate whether the company's strategy, implementation, and execution are indeed contributing to bottom-line improvement. Typical financial goals include profitability, growth, and shareholder value. Periodic financial statements remind managers that improved quality, response time, productivity, and innovative products benefit the firm only when they result in improved sales, increased market share, reduced operating expenses, or higher asset turnover.[63]

financial perspective measures of firms' financial performance that indicate how well strategy, implementation, and execution are contributing to bottom-line improvement.

A key implication is that managers need not see their primary responsibility as balancing stakeholder demands. They must avoid the following mind-set: "How many units in employee satisfaction do I have to give up to get some additional units of customer satisfaction or profits?" Instead, the balanced scorecard enables a win–win approach. In so doing, it increasing satisfaction among a wide variety of organizational stakeholders, including employees (at all levels), customers, and stockholders.

The Insights from Research discusses how balance in performance across a set of criteria leads to increased and more consistent future financial performance.

Limitations and Potential Downsides of the Balanced Scorecard There is general agreement that there is nothing inherently wrong with the concept of the balanced scorecard.[64] The key limitation is that some executives may view it as a quick fix that can be easily installed. If managers do not recognize this from the beginning and fail to commit to it long term, the organization will be disappointed. Poor execution becomes the cause of such performance outcomes. And organizational scorecards must be aligned with individuals' scorecards to turn the balanced scorecards into a powerful tool for sustained performance.

In a study of 50 Canadian medium-size and large organizations, the number of users expressing skepticism about scorecard performance was much greater than the number claiming positive results. A large number of respondents agreed with the statement "Balanced scorecards don't really work." Some representative comments included: "It became just a number-crunching exercise by accountants after the first year," "It is just the latest management fad and is already dropping lower on management's list of priorities as all fads eventually do," and "If scorecards are supposed to be a measurement tool, why is it so hard to measure their results?" There is much work to do before scorecards can become a viable framework to measure sustained strategic performance.

3.1 *INSIGHTS* from Research

THE BENEFITS OF BALANCE

Overview

Business leaders face strong pressures to produce financial results, but they also know that ignoring other areas of the firm can cause trouble down the line. This study speaks on that topic and shows that having balance in performance pays off for the firm financially.

What the Research Shows

Researchers from the Drucker Institute have compiled a data set on 693 large, publicly-traded companies from 2012 to 2017. They collected information on 37 indicators of performance in five specific areas: customer satisfaction, employee engagement, innovation, social responsibility, and financial performance. Companies were scored on a range of 0 to 100 in each of these five areas. The scores were standardized so that the mean score on each scale was 50. The researchers were specifically focused on whether consistency in performance across the five areas would have an impact on the firm's future financial performance.

The results were very clear. The more a firm consistently performed across the five areas, the more the firm avoided major peaks and valleys, the better the firm's financial performance in the following year. For example, if a firm received an average score over the five areas of 70 (an above average score) and had a consistency score of 50 (right on the mean value), the predicted financial performance for the following year was 62. But if the firm's average score remained the same (70), but its consistency score was also well above average (70), it could anticipate the firm's performance in the following year would be 65. This three-point rise may not seem like much, but it moves the firm's anticipated financial performance from the top 12 percent into the top 7 percent of firms.

So why is consistency beneficial? The researchers suggest that when a firm has uneven performance across these measures, there may be particular areas of weakness that could become major problems for the firm in coming years. The researchers use the metaphor of an elite athlete. If the athlete neglects endurance and focuses exclusively on strength and speed, they will not be able to sustain performance over time.

Key Takeaways

- Five key areas of performance for firms to focus on are customer satisfaction, employee engagement and development, innovation, social responsibility, and financial strength.
- Firms tend to perform better over time if they perform consistently across these five areas.
- Weakness on any of the five areas indicates an issue that could emerge into a crisis for the firm.

Questions

1. What are some examples of firms that have been strong performers but that faced struggles because of specific areas of weakness? How did these firms respond to these challenges?
2. Amazon is very highly ranked on a number of the dimensions examined, but the firm scored quite unevenly across the areas, scoring particularly low in social responsibility. Should Amazon see this as a potential threat? What actions, if any, should Amazon take moving forward?

Research Reviewed

Wartzman, R., and L. Crosby. 2018. The key to improving a firm's financial health. *The Wall Street Journal*, May 21: R6.

Problems often occur in the balanced scorecard implementation efforts when the commitment to learning is insufficient and employees' personal ambitions are included. Without a set of rules for employees that address continuous process improvement and the personal improvement of individual employees, there will be limited employee buy-in and insufficient cultural change. Thus, many improvements may be temporary and superficial. Often, scorecards that failed to attain alignment and improvements dissipated very quickly. And, in many cases, management's efforts to improve performance were seen as divisive and were viewed by employees as aimed at benefiting senior management compensation. This fostered a "what's in it for me?" attitude.

ISSUE FOR DEBATE

One of the most difficult decisions firms in dynamic industries need to make is whether to invest primarily in one line of research and development or to spread its investments in multiple lines of research. Merck, a major pharmaceutical firm, faced this very choice recently. Until recent years, Merck preferred to spread its investments across a range of research directions and products. As Bernard Munos, a pharmaceutical R&D consultant stated, "Merck's R&D strategy was to bring as many drugs to market as they could."

Recently, the firm's focus shifted. Rather than developing a range of drugs, Merck has focused largely on one drug, Keytruda, a new type of cancer drug that leverages the patient's own immune system to fight cancer tumors. The drug is already marketed to treat skin, bladder, and other cancers, but the firm is looking for even more uses for it. Merck has expanded its oncology team, doctors who study and treat cancer, from 20 to 100 specialists. The firm has over 700 clinical trials examining how Keytruda could treat more than 30 types of cancer. Over half of Merck's budget for clinical trials is aimed at Keytruda. Merck's R&D head, Roger Perlmutter, put it bluntly to his staff when he said, "Whatever other projects you're working on, you can stop now, because we're doing this, and we're going to put a lot of muscle behind this."

Not all clinical trials have produced positive outcomes. The drug did not appear to extend the survival of gastric cancer patients. Still, the general news has been positive. Trials for kidney, brain, lung, and esophageal cancers have shown positive results. The sales of the drug have been growing rapidly, making up 35 percent of Merck's sales in 2021, $17 billion in sales for the one drug alone, up from $11 billion in 2019. Even with its success, some wonder if Merck is investing too heavily in this one patented drug.

Discussion Questions

1. Why is Merck investing so heavily in this one drug? What are the risks and opportunities?
2. What are the long-term implications for Merck's culture, its human resources, and its knowledge base?
3. Is this a good "bet the company" decision? How do you think Merck should move forward from here?

Sources: Loftus, P. 2018. Why Merck is betting big on one cancer drug. *The Wall Street Journal*, April 15; Mishra, M. 2019. Merck's Keytruda tops $2 billion in quarterly sales, shares rise. *reuters.com,* February 1: np; and Gapper, J. 2019. Keytruda shows the high price of curing cancer. *ft.com,* February 13: np.

Reflecting on Career Implications . . .

This chapter addresses the importance of the internal environment for strategic managers. As a strategic manager, you should fully understand how you can leverage your competencies to both bring value to your firm and enhance your career opportunities.

- **The Value Chain:** It is important that you develop an understanding of your firm's value chain. What activities are most critical for attaining competitive advantage? Think of ways in which you can add value in your firm's value chain. How might your firm's support activities (e.g., information technology, human resource practices) help you accomplish your assigned tasks more effectively? How will you bring your value-added contribution to the attention of your superiors?
- **The Value Chain:** Consider the most important linkages between the activities you perform in your organization with other activities both within your firm and between your firm and its suppliers, customers, and alliance partners. Understanding and strengthening these linkages can contribute greatly to your career advancement within your current organization.
- **Resource-Based View of the Firm:** Are your skills and talents rare, valuable, and difficult to imitate, and do they have few substitutes? If so, you are in the better position to add value for your firm—and earn rewards and incentives. How can your skills and talents be enhanced to help satisfy these criteria to a greater extent? Get more training? Change positions within the firm? Consider career options at other organizations?
- **Balanced Scorecard:** Can you design a balanced scorecard for your life? What perspectives would you include in it? In what ways would such a balanced scorecard help you attain success in life?

key points

LO 3-1 The primary and support activities of a firm's value chain.

- Primary activities include all parts of the organization involved in the direct physical creation, distribution, sale, or servicing of the firms products and services, including inbound logistics, operations, outbound logistics, marketing and sales, and service.
- Support activities either add value themselves or in combination with both primary and other support activities, including procurement, technology development, human resource management, and general administration.

LO 3-2 How value-chain analysis can help managers create value by investigating relationships among activities within the firm and between the firm and its customers and suppliers.

- It is important to understand each of the firm's value-chain activities, but real firm value is generated when the firm leverages relationships among the different activities.
- This includes (1) interrelationships among activities within the firm and (2) relationships among activities within the firm and its suppliers and customers.
- Interrelationships improve overall firm value when they involve the effective coordination of actions and exchange of resources, such as information, technology, and people.

LO 3-3 The resource-based view of the firm and the different types of tangible and intangible resources, as well as organizational capabilities.

- The resource-based view of the firm considers the firm as a bundle of resources: tangible resources, intangible resources, and organizational capabilities.
- Competitive advantages that are sustainable over time generally arise from the creation of bundles of resources and capabilities.

LO 3-4 The four criteria that a firm's resources must possess to maintain a sustainable advantage and how value created can be appropriated by employees and managers.

- For advantages to be sustainable, four criteria must be satisfied: value, rarity, difficulty in imitation, and difficulty in substitution.
- The owners of a business may not capture all of the value created by the firm. The appropriation of value created by a firm between the owners and employees is determined by four factors: employee bargaining power, replacement cost, employee exit costs, and manager bargaining power.

LO 3-5 The usefulness of financial ratio analysis, its inherent limitations, and how to make meaningful comparisons of performance across firms.

- Financial ratio analysis involves identifying how a firm is performing according to its balance sheet, income statement, and market valuation.
- Common measures assessed include short-term solvency, long-term solvency, asset utilization, profitability, and market value ratios.
- Assessing the firm's performance is also more useful if it is evaluated in terms of how it changes over time, compares with industry norms, and compares with key competitors.

LO 3-6 The value of the "balanced scorecard" in recognizing how the interests of a variety of stakeholders can be interrelated.

- Determining a firm's performance requires an analysis of its financial situation as well as a review of how well it is satisfying a broad range of stakeholders, including customers, employees, and stockholders.
- With the balanced scorecard, four perspectives are addressed: customer, internal business, innovation and learning, and financial factors.
- Central to this concept is the idea that the interests of various stakeholders can be interrelated. Thus, improving a firm's performance does not necessarily need to involve making trade-offs among different stakeholders.

SUMMARY REVIEW QUESTIONS

1. SWOT analysis is a technique to analyze the internal and external environments of a firm. What are its advantages and disadvantages?
2. Briefly describe the primary and support activities in a firm's value chain.
3. How can managers create value by establishing important relationships among the value-chain activities both within their firm and between the firm and its customers and suppliers?
4. Briefly explain the four criteria for sustainability of competitive advantages.
5. Under what conditions are employees and managers able to appropriate some of the value created by their firm?
6. What are the advantages and disadvantages of conducting a financial ratio analysis of a firm?
7. Summarize the concept of the balanced scorecard. What are its main advantages?

key terms

value-chain analysis 72
primary activities 72
support activities 72
inbound logistics 73
operations 73
outbound logistics 74
marketing and sales 74
service 74
procurement 74
technology development 76
human resource management 76
general administration 77
interrelationships 77
resource-based view (RBV) of the firm 80
tangible resources 80
intangible resources 81
organizational capabilities 82
path dependency 84
causal ambiguity 85
social complexity 85
financial ratio analysis 89
balanced scorecard 92
customer perspective 92
internal business perspective 93
innovation and learning perspective 93
financial perspective 93

EXPERIENTIAL EXERCISES AND APPLICATION QUESTIONS

1. In the **Learning from Mistakes** at the beginning of the chapter, we discussed how Quibi compiled up a number of valuable resources but failed spectacularly. Imagine you are advising Netflix on a new service they were considering to offer short-form videos. Your task is to lay out the value chain for this potential business unit and discuss how each step is critical to creating customer value.
2. Caterpillar is a leading firm in the construction and mining equipment industry with extensive global operations. It has approximately 108,000 employees, and its revenues were $51 billion in 2021. In addition to its manufacturing and logistics operations, Caterpillar is well known for its superb service and parts supply, and it provides retail financing for its equipment. The following questions focus on Caterpillar's value-chain activities and the interrelationships among them as well as whether or not the firm is able to attain sustainable competitive advantage(s).

   a. Where in Caterpillar's value chain is the firm creating value for its customers?

Value-Chain Activity	Yes/No	How Does Caterpillar Create Value for the Customer?
Primary:		
Inbound logistics		
Operations		
Outbound logistics		
Marketing and sales		
Service		
Support:		
Procurement		
Technology development		
Human resource management		
General administration		

   b. What are the important relationships among Caterpillar's value-chain activities? What are the important interdependencies? For each activity, identify the relationships and interdependencies.

	Inbound logistics	Operations	Outbound logistics	Marketing and sales	Service	Procurement	Technology development	Human resource management	General administration
Inbound logistics									
Operations									
Outbound logistics									
Marketing and sales									
Service									
Procurement									
Technology development									
Human resource management									
General administration									

c. What resources, activities, and relationships enable Caterpillar to achieve a sustainable competitive advantage?

Resource/Activity	Is It Valuable?	Is It Rare?	Are There Few Substitutes?	Is It Difficult to Make?
Inbound logistics				
Operations				
Outbound logistics				
Marketing and sales				
Service				
Procurement				
Technology development				
Human resource management				
General administration				

3. Using published reports, select two CEOs who have recently made public statements regarding a major change in their firm's strategy. Discuss how the successful implementation of such strategies requires changes in the firm's primary and support activities.
4. Select a firm that competes in an industry in which you are interested. Drawing upon published financial reports, complete a financial ratio analysis. Based on changes over time and a comparison with industry norms, evaluate the firm's strengths and weaknesses in terms of its financial position.
5. How might exemplary human resource practices enhance and strengthen a firm's value-chain activities?
6. Look up your university or college on the internet. What are some of its key value-creating activities that provide competitive advantages? Why?

ETHICS QUESTIONS

1. What are some of the ethical issues that arise when a firm becomes overly zealous in advertising its products?
2. What are some of the ethical issues that may arise from a firm's procurement activities? Are you aware of any of these issues from your personal experience or from businesses you are familiar with?

REFERENCES

1. Flint, J. & Watson, R.J. 2020. Quibi is Hollywood's biggest short-form failure—but not its first. wsj.com. October 24: np; and Lowry, B. 2020. Quibi's crash and burn is a warning to the crowded streaming space. cnn.com. October 22: np.
2. Our discussion of the value chain will draw on Porter, M. E. 1985. *Competitive advantage:* chap. 2. New York: Free Press.
3. Dyer, J. H. 1996. Specialized supplier networks as a source of competitive advantage: Evidence from the auto industry. *Strategic Management Journal,* 17: 271–291.
4. For an insightful perspective on value-chain analysis, refer to Stabell, C. B. & Fjeldstad, O. D. 1998. Configuring value for competitive advantage: On chains, shops, and networks. *Strategic Management Journal,* 19: 413–437. The authors develop concepts of value chains, value shops, and value networks to extend the value-creation logic across a broad range of industries. Their work builds on the seminal contributions of Porter, 1985, op. cit., and others who have addressed how firms create value through key interrelationships among value-creating activities.
5. Ibid.
6. Shaw Industries. 1999. Annual report: 14–15.
7. Cain. A. 2020. Costco just bought up a logistics company from Sears' owner for $1 billion. businessinsider.com. March 18: np.
8. Jackson, M. 2001. Bringing a dying brand back to life. *Harvard Business Review,* 79(5): 53–61.
9. Anderson, J. C. & Nmarus, J. A. 2003. Selectively pursuing more of your customer's business. *MIT Sloan Management Review,* 44(3): 42–50.
10. Insights on advertising are addressed in Rayport, J. F. 2008. Where is advertising going? Into 'stitials. *Harvard Business Review,* 66(5): 18–20.
11. Fleck, A. 2018. 6 Product Placements on TV So Good You Didn't Realize You Were Being Sold Something. adweek.com. August 8: np.
12. For a scholarly discussion on the procurement of technology components, read Hoetker, G. 2005. How much you know versus how well I know you: Selecting a supplier for a technically innovative component. *Strategic Management Journal,* 26(1): 75–96.
13. For a discussion on criteria to use when screening suppliers for back-office functions, read Feeny, D., Lacity, M., & Willcocks, L. P. 2005. Taking the measure of outsourcing providers. *MIT Sloan Management Review,* 46(3): 41–48.
14. For a study investigating sourcing practices, refer to Safizadeh, M. H., Field, J. M., & Ritzman, L. P. 2008.

Sourcing practices and boundaries of the firm in the financial services industry. *Strategic Management Journal,* 29(1): 79–92.

15. Imperato, G. 1998. How to give good feedback. *Fast Company,* September: 144–156.
16. Imperato, G. 1998. How Microsoft reviews suppliers. *Fast Company*.
17. Bensaou, B. M. & Earl, M. 1998. The right mindset for managing information technology. *Harvard Business Review,* 96(5): 118–128.
18. A discussion of R&D in the pharmaceutical industry is in Garnier, J-P. 2008. Rebuilding the R&D engine in big pharma. *Harvard Business Review,* 66(5): 68–76.
19. Ulrich, D. 1998. A new mandate for human resources. *Harvard Business Review,* 96(1): 124–134.
20. A study of human resource management in China is Li, J., Lam, K., Sun, J. J. M., & Liu, S. X. Y. 2008. Strategic resource management, institutionalization, and employment modes: An empirical study in China. *Strategic Management Journal,* 29(3): 337–342.
21. Wood, J. 2003. Sharing jobs and working from home: The new face of the airline industry. *AviationCareer.net:* February 21.
22. Gellman, L. 2015. When a job offer comes without a job. *Wall Street Journal.* December 2: B1, B7.
23. For insights on the role of information systems integration in fostering innovation, refer to Cash, J. I. Jr., Earl, M. J., & Morison, R. 2008. Teaming up to crack innovation and enterprise integration. *Harvard Business Review,* 66(11): 90–100.
24. For a cautionary note on the use of IT, refer to McAfee, A. 2003. When too much IT knowledge is a dangerous thing. *MIT Sloan Management Review,* 44(2): 83–90.
25. For an interesting perspective on some of the potential downsides of close customer and supplier relationships, refer to Anderson, E. & Jap, S. D. 2005. The dark side of close relationships. *MIT Sloan Management Review,* 46(3): 75–82.
26. Day, G. S. 2003. Creating a superior customer-relating capability. *MIT Sloan Management Review,* 44(3): 77–82.
27. To gain insights on the role of electronic technologies in enhancing a firm's connections to outside suppliers and customers, refer to Lawrence, T. B., Morse, E. A., & Fowler, S. W. 2005. Managing your portfolio of connections. *MIT Sloan Management Review,* 46(2): 59–66.
28. Siggelkow, N. & Terwiesch, C. 2019. *Connected strategy: Building continuous customer relationships for competitive advantage*. Harvard Business Review Press: Boston.
29. Collis, D. J. & Montgomery, C. A. 1995. Competing on resources: Strategy in the 1990's. *Harvard Business Review,* 73(4): 119–128; and Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management,* 17(1): 99–120.
30. For critiques of the resource-based view of the firm, refer to Sirmon, D. G., Hitt, M. A., & Ireland, R. D. 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review,* 32(1): 273–292; and Newbert, S. L. 2007. Empirical research on the resource-based view of the firm: An assessment and suggestions for future research. *Strategic Management Journal,* 28(2): 121–146.
31. Henkoff, R. 1993. Companies that train the best. *Fortune,* March 22: 83; and Dess & Picken, *Beyond productivity,* p. 98.
32. Gaines-Ross, L. 2010. Reputation warfare. *Harvard Business Review,* 88(12): 70–76.
33. Barney, J. B. 1986. Types of competition and the theory of strategy: Towards an integrative framework. *Academy of Management Review,* 11(4): 791–800.
34. Harley-Davidson. 1993. Annual report.
35. Stetler, B. 2008. Griping online? Comcast hears and talks back. *nytimes.com,* July 25: np.
36. For a rigorous, academic treatment of the origin of capabilities, refer to Ethiraj, S. K., Kale, P., Krishnan, M. S., & Singh, J. V. 2005. Where do capabilities come from and how do they matter? A study of the software services industry. *Strategic Management Journal,* 26(1): 25–46.
37. For an academic discussion on methods associated with organizational capabilities, refer to Dutta, S., Narasimhan, O., & Rajiv, S. 2005. Conceptualizing and measuring capabilities: Methodology and empirical application. *Strategic Management Journal,* 26(3): 277–286.
38. Lorenzoni, G. & Lipparini, A. 1999. The leveraging of interfirm relationships as a distinctive organizational capability: A longitudinal study. *Strategic Management Journal,* 20: 317–338.
39. A study investigating the sustainability of competitive advantage is Newbert, S. L. 2008. Value, rareness, competitive advantages, and performance: A conceptual-level empirical investigation of the resource-based view of the firm. *Strategic Management Journal,* 29(7): 745–768.
40. Arikan, A. M. & McGahan, A. M. 2010. The development of capabilities in new firms. *Strategic Management Journal,* 31(1): 1–18.
41. Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management,* 17(1): 99–120.
42. Barney, 1986, op. cit. Our discussion of inimitability and substitution draws upon this source.
43. A study that investigates the performance implications of imitation is Ethiraj, S. K. & Zhu, D. H. 2008. Performance effects of imitative entry. *Strategic Management Journal,* 29(8): 797–818.
44. Sirmon, D. G., Hitt, M. A., Arregale, J.-L. & Campbell, J. T. 2010. The dynamic interplay of capability strengths and weaknesses: Investigating the bases of temporary competitive advantage. *Strategic Management Journal,* 31(13): 1386–1409.
45. Deephouse, D. L. 1999. To be different, or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal,* 20: 147–166.
46. Hagerty, J. 2015. A radical idea: Own your supply chain. *Wall Street Journal,* April 30: B1–B2.
47. Karlgaard, R. 2014. *The soft edge.* San Francisco: Jossey-Bass.
48. EN. Byrne, J. 2018. 139 taxi medallions will be offered at bankruptcy auction. nypost.com. June 9: np.
49. Khafagy, A. 2021 NYC yellow taxi medallion crisis explained. documentedny.com. November 23: np.
50. Robins, J. A. & Wiersema, M. F. 2000. Strategies for unstructured competitive environments: Using scarce resources to create new markets. In Bresser, R. F., et al. (Eds.), *Winning strategies in a deconstructing world:* 201–220. New York: Wiley.
51. Bass, A.S. 2018. GrAIt expectations. *The Economist*. March 31: 3–12. Cohen, S.A. & Granade, M.W. 2018. *wsj.com*. August 19: np.
52. Amit, R. & Schoemaker, J. H. 1993. Strategic assets and organizational rent. *Strategic Management Journal,* 14(1): 33–46; Collis, D. J. & Montgomery, C. A. 1995. Competing on resources: Strategy in the 1990's. *Harvard Business Review,* 73(4): 118–128; Coff, R. W. 1999. When competitive advantage doesn't lead to performance: The resource-based view and stakeholder bargaining

power. *Organization Science,* 10(2): 119–133; and Blyler, M. & Coff, R. W. 2003. Dynamic capabilities, social capital, and rent appropriation: Ties that split pies. *Strategic Management Journal,* 24: 677–686.

53. Economists define *rents* as profits (or prices) in excess of what is required to provide a normal return.
54. Munk, N. 1998. The new organization man. *Fortune,* March 16: 62–74.
55. Coff, op. cit.
56. Elmer-Dewitt, P. 2016. How Much Does Apple Pay Jony Ive? fortune.com. January 7: np.
57. Luehrman, T. A. 1997. What's it worth? A general manager's guide to valuation. *Harvard Business Review,* 45(3): 132–142.
58. See, for example, Kaplan, R. S. & Norton, D. p. 1992. The balanced scorecard: Measures that drive performance. *Harvard Business Review,* 69(1): 71–79.
59. Hitt, M. A., Ireland, R. D., & Stadter, G. 1982. Functional importance of company performance: Moderating effects of grand strategy and industry type. *Strategic Management Journal,* 3: 315–330.
60. *finance.yahoo.com.*
61. Kaplan & Norton, op. cit.
62. Ibid.
63. For a discussion of the relative value of growth versus increasing margins, read Mass, N. J. 2005. The relative value of growth. *Harvard Business Review,* 83(4): 102–112.
64. Our discussion draws upon: Angel, R. & Rampersad, H. 2005. Do scorecards add up? *camagazine.com.* May: np; and Niven, P. 2002. *Balanced scorecard step by step: Maximizing performance and maintaining results.* New York: John Wiley & Sons.

To request an eBook or print copy of **Strategic Management: Text and Cases 11e or Strategic Management: Creating Competitive Advantages 11e** contact your local Learning Technology Representative Here.