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Edward J. Blocher • Paul E. Juras • Steven D. Smith

# COST MANAGEMENT

a strategic emphasis

9e



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# Cost Management

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**A Strategic Emphasis**

*Ninth Edition*

**Edward J. Blocher**

*University of North Carolina at Chapel Hill  
Kenan-Flagler Business School*

**Paul E. Juras**

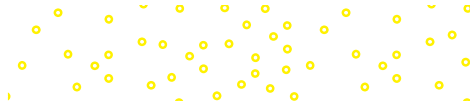
*Babson College  
Accountancy and Law Division*

**Steven D. Smith**

*Brigham Young University  
Marriott School of Business*

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## COST MANAGEMENT

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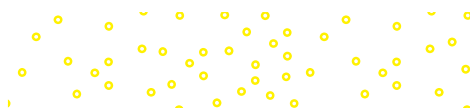
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We dedicate this edition . . .

To my wife, Sandy, and our sons, Joseph  
and David

Ed Blocher

To my wife, Colleen, and my children,  
Stephen and Kate

Paul Juras

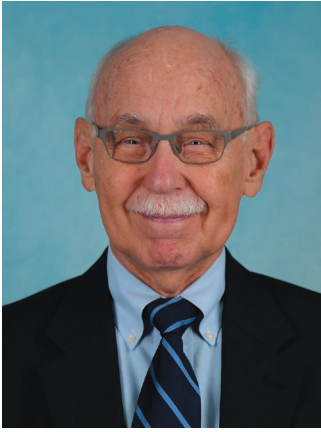
To my wife, Heather, and our children,  
Darby, Trevor, Kelli, Finneas, and Melissa

Steve Smith





# Meet the Authors



Jessica Gray Starnes/Kenan-Flagler Business School/University of North Carolina at Chapel Hill

**Edward J. Blocher** is an emeritus professor of accounting at the Kenan-Flagler Business School at the University of North Carolina at Chapel Hill. His undergraduate degree (economics) is from Rice University, his MBA from Tulane University, and his PhD from the University of Texas at Austin. Professor Blocher has presented regularly on strategic cost management at the national meetings of both the American Accounting Association (AAA) and the Institute of Management Accountants (IMA).

While he is involved in a number of accounting organizations, Professor Blocher has been most continually active in the IMA, where he has been a member of the IMA's Research Foundation. He is a certified management accountant (CMA), has taught review courses for the CMA exam, and has served on the IMA's national education committee. He has supervised or participated in the direction of several doctoral students, many of whom prepared dissertations in management accounting. Professor Blocher is also the author or coauthor of several articles in management accounting and in other areas of accounting and has served as associate editor and reviewer for a number of accounting journals. He published a 2009 article in *Issues in Accounting Education* on the topic of teaching strategic cost management.

Putting research and teaching into practice is important to Professor Blocher, who has worked closely with other firms and organizations in developing products, publications, and teaching materials. He was a member of the task force for the IMA that developed a new definition of management accounting in 2008. From 2010 to 2014, he served as a member of the joint curriculum task force of the Management Accounting Section (MAS) of the AAA and the IMA, which was charged with the responsibility of developing curriculum recommendations for accounting education. The task force has two recent publications in *Issues in Accounting Education*. Also, he has provided expert testimony and has consulted with a number of organizations regarding cost management matters.



Babson College

**Paul E. Juras** is the Jefferson Vander Wolk Professor of Managerial Accounting and Operational Performance and former chair of the Accountancy and Law Division at Babson College. Previously he was a professor of accountancy at Wake Forest University. He earned both his BBA and MBA at Pace University and his PhD from Syracuse University. He is a certified management accountant (CMA) and has a certified public accountant (CPA) license from New York. Professor Juras has experience in strategic management accounting. He has published articles and cases in many journals, including the *Journal of Corporate Accounting and Finance*, *Issues in Accounting Education*, *The CPA Journal*, and *Strategic Finance*. He has made numerous presentations at meetings of both the American Accounting Association (AAA) and the Institute of Management Accountants (IMA). In 2014, he received the IMA's Lybrand Gold Medal, awarded to the author(s) of the outstanding article of the year published in *Strategic Finance*, and in 2015 he received the IMA's R. Lee Brummet Award for Distinguished Accounting Educators.

Professor Juras taught managerial accounting and strategic cost management courses in the undergraduate program, the Masters of Science in Accountancy program, and the MBA program at Wake Forest University. He teaches cost management courses in the undergraduate and various graduate programs in both face-to-face and blended-learning formats at Babson College.

While he was active in CAM-I, the Consortium for Advanced Management-International, and has served in leadership roles in the Management Accounting Section of the AAA, Professor Juras dedicates most of his efforts outside the classroom to the IMA, including his role as the 2020-21 global chair of the organization. In addition, he has served as chair of the Institute of Certified Management Accountants, the organization responsible for the CMA certification; served a three-year term as chair of the IMA Research Foundation; and, for 10 years, was an associate editor of the *IMA Educational Case Journal*.



BYU Photo

**Steven D. Smith** is an associate professor of accountancy and the Warnick/Deloitte Fellow in the Marriott School of Business at Brigham Young University (BYU). Previously he was an assistant professor of accountancy at the University of Illinois at Urbana-Champaign. He earned BS and MACC degrees from BYU, and MS and PhD degrees from Cornell University. He is a certified management accountant (CMA). Professor Smith teaches cost and management accounting courses in the undergraduate and graduate accounting programs, as well as the executive MBA program at BYU. Professor Smith has experience working in the field of strategic cost management, including a 2016 professional development leave from BYU, during which he worked as an in-house financial planning and analysis consultant for Ortho Development Corporation, a medical device company in Salt Lake City, Utah.

Professor Smith's expertise is in the areas of management control systems, focusing on the provision of incentives and performance measurement. He has published numerous articles in prestigious academic publications such as *The Accounting Review*, *Review of Accounting Studies*, *Contemporary Accounting Research*, and *Journal of Management Accounting Research*. He has presented his research at conferences and invited presentations throughout the world, and has also published teaching cases in the *IMA Educational Case Journal* and *Strategic Finance*. Professor Smith has served in a variety of research- and teaching-focused positions in both the Management Accounting Section (MAS) of the American Accounting Association (AAA) and the Institute of Management Accountants (IMA).

**The Author Team** was selected to create a leading book in cost management based on leadership in teaching experience, research, commitment to learning, and a connection to the profession and practice of management accounting that provides students with up-to-date knowledge of real-world management accounting issues and practices.

# Blocher/Juras/Smith

## Letter to the Students:

We have written this book to help you understand the role of cost management in helping an organization succeed. Unlike many books that aim to teach you *about* accounting, we aim to show you how an important area of accounting, cost management, is *used* by managers to help organizations achieve their goals.

An important aspect of cost management in our text is the strategic focus. By *strategy*, we mean the long-term plan the organization has developed to compete successfully. Most organizations strive to achieve a competitive edge through the execution of a specific strategy. For some firms, it is low cost; for others, it might be high quality, customer service, or some unique feature or attribute of its product or service. We know in these competitive times that an organization does not succeed by being ordinary. Rather, it develops a strategy that will set it apart from competitors and ensure its attractiveness to customers and other stakeholders into the future. The role of cost management is to help management of the organization attain and maintain success through strategy implementation. Thus, for every major topic covered in our text, there is a larger issue, which is: “How does this organization compete? What type of cost management information does it need?” We do *not* cover a cost management method simply to become proficient at it. We want you to know why, when, and how the technique can be used to help the organization succeed.

An understanding of the strategic role of cost management today is so important that many senior financial managers and many CPAs—both in public and in private practice—are coming back to school to learn more about strategy, competitive analysis, and new cost management techniques. Knowing how to do the accounting alone—no matter how well you do it—is, by itself, no longer sufficient. Cost management with a strategic emphasis is one way to enhance your career and to add value to your employer, whatever type of organization it might be.

## New Data Analytics in form of Applying Excel and Applying Tableau

### Key Text Features that Integrate Strategy

**REAL-WORLD FOCUS** Cost Structure Decision Has a Lasting Impact

Back in 2010 the world saw a global commodities boom. Across the globe companies were ordering excavators and bulldozers and the giant dump trucks used in mining operations. During a three-year period, Caterpillar, a heavy equipment manufacturer, spent nearly \$10 billion worldwide on plant equipment to be able to capture this increased demand.

Several years later, Caterpillar was facing its fourth straight year of declining sales. It has reduced its workforce by 20% and plans to close or consolidate as many as 20 plants. While production levels have dropped, many of the costs of owning and operating the plants still existed. The company's spokesperson was quoted as saying, “We're lowering our cost structure.”

Source: Bob Tita, “How Caterpillar's Big Bet Backfired; CEO Doug Oberhelman Invested Heavily in Production of Machinery and Equipment. Then Commodities Began Their Slide,” *The Wall Street Journal* (China), October 17, 2016.

**Real-World Focus** *Cost Management* provides extensive real-world examples of how cost management systems can add value to the organization. The **Real-World Focus** boxes throughout the text take real organizations and demonstrate strategy in action and the role that cost management plays in supporting the organization's strategy.

To augment this coverage, the Blocher team encourages students to further explore real-world companies through **Cost Management in Action** boxes that appear in each chapter throughout the text. This feature poses important questions that make students think critically about the relationship between cost management and organizational strategy. At the end of each chapter, the authors then supply their comments for the **Cost Management in Action** boxes.

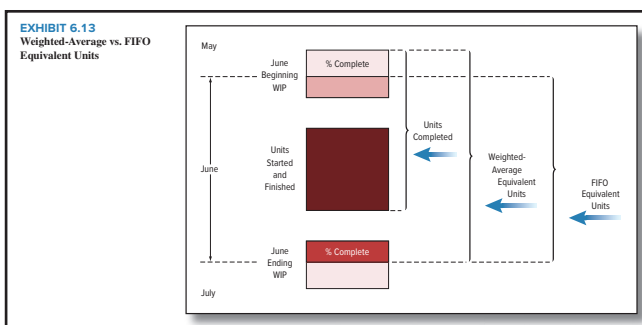
**COST MANAGEMENT IN ACTION** Cost per Bushel of Soybeans in the U.S.

In mid-2019 China placed a tariff on U.S. soybeans. China buys more soybeans than any other country on Earth, and a large portion of U.S. soybeans had been sold to China. Now those farmers are having a tougher time selling their crop. While finding other markets is an option, the cost of production is important to know when considering what price needs to be charged. The following data provide the cost of soybean production in Illinois, which is in the U.S. heartland. This type of data is used to analyze the cost competitiveness of soybean production in the U.S.

**Required**

1. What can you learn from the information below about the cost of the U.S. soybean production?
2. Critically evaluate the cost information.

Source: <http://corn.agronomy.wisc.edu/AA/A025.aspx>, accessed August 8, 2019; <https://www.usatoday.com/story/money/2019/06/20/tariffs-raise-china-purchases-american-soybeans-report-says/1284326001/>, accessed August 9, 2019. (Refer to Comments on Cost Management in Action at the end of the chapter)



**Text Illustrations** Clear and concise exhibits help illustrate basic and complicated topics throughout the book.



# Helping Students Succeed Using *Cost Management, 9e*

**Problem Material** The Blocher team has taken great care to develop assignment material that effectively reinforces concepts, procedures, and strategic issues presented in each chapter. In addition, each chapter has one or more end-of-chapter assignments that focus on ethical issues or that deal with an international context or a service (i.e., nonmanufacturing) setting. The authors also include exercises and problems that relate topical coverage to the general issue of sustainability. Where appropriate, the chapters have assignments based on readings from periodicals such as *Strategic Finance*, *Management Accounting Quarterly*, *The Wall Street Journal*, and *Harvard Business Review*. These assignments link topical material in the chapter to the broader, strategic issues that organizations face. End-of-chapter assignments that embrace a distinguishing focus are identified as follows:



Strategy



International



Service



Ethics



Sustainability

## ***A Framework for Integrating Strategy: The Five Steps of Strategic Decision Making***

The first edition of *Cost Management* introduced a five-step framework for decision making with a strategic emphasis. The framework shows that each decision starts and ends with a consideration of the organization's strategy. To extend and integrate the strategic emphasis, the ninth edition continues the tradition of including this five-step framework throughout the text. In all but a few chapters, there is a short section that uses the five-step framework to show how a consideration of the organization's strategy plays a key role in making decisions that will address the business-related problems presented in that chapter.

## ***The Competitive Global Economic Environment Increases the Importance of Reviewing and Executing Strategy***

The competitive global economic environment requires today's firms to place an even greater emphasis on the successful execution of their strategies. Moreover, increased competitive pressures may require organizations to review and modify their strategies to compete more effectively in the competitive global environment. Throughout this new edition, we also cover how economic and political forces in many countries are currently opposing certain aspects of globalization—for example, tighter immigration policies and the protection of domestic workers. We first saw this in 2016, when a referendum in the United Kingdom concerning its membership in the European Union (EU) favored separation (called Brexit, or “British Exit”).

## ***Integration of Advanced Excel Skills Development***

Success in business requires the ability to use technology to extract information from quantitative data, and then to present that information in a way that helps others understand and make better decisions. Microsoft Excel has been and remains the dominant spreadsheet program for organizing, manipulating, and analyzing quantitative data. The authors of *Cost Management* have made a unique effort to integrate Excel training within the text as a complement to the material being presented. Excel instructions and hints are also presented in the end-of-chapter materials wherever spreadsheet application may be useful for students. These integrated Excel features are additional to the other Excel-focused resources of the book, as described in the paragraphs that follow.

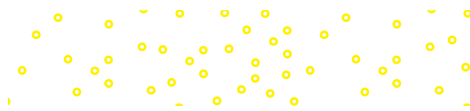
## **ADDITIONAL INSTRUCTOR AND STUDENT RESOURCES**

**NEW Data Analytics and Visualization Assignments** The ninth edition introduces additional data analytics and visualization content in *Connect*. This includes video and text instruction, assignment material, and feedback using cases developed for Tableau.

**Excel Tutorials** The ninth edition provides brand new, updated Excel tutorial content in each of the 20 chapters. Students can simultaneously hone their Excel skills and apply those skills to managerial topics using functions such as pivot tables, Goal Seek, and regression analysis. Tutorials are offered for each chapter in both step-by-step tutorial documents and videos, as well as in “Applying Excel” content within *Connect*, enabling instructors to more easily integrate Excel into their courses and allowing students further practice using algorithmic versions.

**Excel Solution Manual** For each chapter, *Cost Management* provides a solution manual in Excel form. The Excel file provides the solution to every exercise and problem in its own spreadsheet tab, with soft-coded formulas wherever computations are needed. This resource, which is unique to *Cost Management*, provides immense flexibility for instructors to (1) help students understand challenging computations, (2) easily demonstrate sensitivity of outputs to variations in inputs, (3) efficiently deploy solutions as needed, (4) resolve pesky rounding issues, and (5) facilitate additional exposure to advanced Excel functions.





### Chapter 3: Applying Excel: Excel Worksheet (Part 1 of 2)

Enter formulas in cells that contain question marks. After entering formulas in all of the cells that contain question marks, verify that the amounts match the example below.

# of Members Attending	Total Cost	Average Cost per Person
260 people (80% of members)	\$4,620	\$17.77
325 people (all members)	\$4,500	\$13.85

Party Budget	\$ 7,500
# of People Attending	650
Total Cost	\$ 7,750
Who should be invited?	invite members only

Check your worksheet setup and formulas by changing the Total Rental Cost in cell C14 in the Data area to \$2,000, keeping all of the other data the same as in the original example. If your worksheet is operating properly, the Total Cost for 260 people attending should now be \$5,120. If you do not get this answer, find the errors in your worksheet and correct them.

reference file



Blocher8e\_Ch03\_ApplyingExcel\_Student.xlsx

Student upload controls will be shown to students when they take this assignment.

**Excel Simulations** Excel Simulations, assignable in Connect, allow students to practice their Excel skills—such as basic formulas and formatting—within the context of accounting. These questions feature animated, narrated Help and Show Me tutorials (when enabled), as well as automatic feedback and grading for both students and professors. These questions differ from Applying Excel in that students work in a simulated version of Excel. *Downloading the Excel application is not required to complete Excel Simulations.*

**Cases and Readings Supplement** The *Cases and Readings Supplement*, available in the Instructor Library and Additional Student Resources, challenges students to think about and use cost management information in a real-world setting. Several of the cases are offered as auto-graded assignments in *Connect* in the ninth edition. The content provides critical thinking skills

development as well as a basis for more comprehensive and in-depth discussions about the role of cost management in helping an organization successfully execute its strategy.

**Self-Study Problems** *Cost Management* provides a multifaceted self-study problem before the questions, exercises, and problems at the end of each chapter. The solution to the static version of each problem in the book is provided at the very end of the chapter. These problems are more comprehensive in nature and can be an invaluable resource for students to assess their own understanding of chapter material. The ninth edition offers algorithmic versions of the self-study problems in *Connect* in addition to the worked-through versions included in the book. Instructors can assign these now and, with the auto-grading feature, can use these as additional assessment content. Students also have access to the static book versions and tutorial videos to work on their own time and at their own pace, using the step-by-step solution to each self-study problem found in the Additional Student Resources.

# 1

## Self-Study Problem 4-1

10 points

Watkins Machinery Company uses a normal job costing system. The company has the following partial trial balance information for March, the last month of its fiscal year:

eBook	Materials inventory (X, \$9,000; Y, \$6,000; Indirect materials, \$15,000)	\$ 30,000
Print	Work-in-process inventory (this is Job 101)	15,600
References	Finished goods inventory (this is Job 100)	26,000

### Required:

1. Prepare journal entries to record the transactions for the events from parts (a) through (g).
2. Compute the ending balance of the Work-in-process inventory account.
3. Compute the overhead variance and indicate whether it is overapplied or underapplied.
4. Close the overhead variance to the Cost of goods sold account.

Complete this question by entering your answers in the tabs below.

Required 1

Required 2

Required 3

Required 4

Prepare journal entries to record the transactions for the events from parts (a) through (g). (If no entry is required for a transaction/event, select "No journal entry required" in the first account field.)

View transaction list

### Journal entry worksheet



1

2

3

4

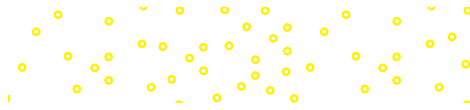
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6

7

8





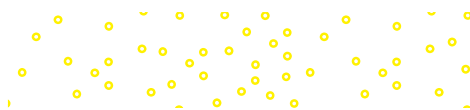
## Connect Library

The Connect Instructor Library is a repository for these additional resources to improve student engagement in and out of class. You can select and use any asset that enhances your lecture. Additional ancillary materials are prepared by the authors to ensure consistency and accuracy and are available in the Instructor Resources within the Connect Library and via the Additional Student Resources within the eBook. The Connect Instructor Library includes:

- Instructor's Guide and Solutions Manuals, both in PDF and Excel forms.
- Teaching notes for the Cases and Reading Supplements.
- PowerPoint lecture presentations.
- Test bank (including TestGen and Test Bank Matrices). TestGen is a complete, state-of-the-art test generator and editing application software that allows instructors to quickly and easily select test items from McGraw Hill's test bank content. The instructors can then organize, edit, and customize questions and answers to rapidly generate tests for paper or online administration.

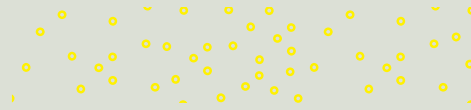
The Additional Student Resources include:

- **Excel Tutorials.**
- **Data Analytics and Visualization Assignments.**
- **Check Figures.**
- **Self-Study Problems.**
- **PowerPoint Slides.**
- **Cases and Readings Supplement.**
- **Regression Analysis Supplement.**
- **Variance Investigation Supplement.**





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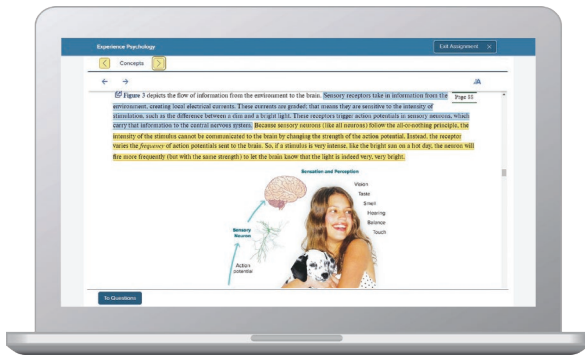
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*"I really liked this app—it made it easy to study when you don't have your textbook in front of you."*

- Jordan Cunningham,  
Eastern Washington University



Calendar: owattaphotos/Getty Images

### Everything you need in one place

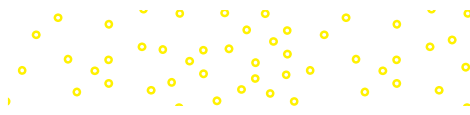
Your Connect course has everything you need—whether reading on your digital eBook or completing assignments for class, Connect makes it easy to get your work done.

### Learning for everyone

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Top: Jenner Images/Getty Images, Left: Hero Images/Getty Images, Right: Hero Images/Getty Images





# What's NEW about the 9th Edition

## Big Data Analytics and Visualization: Applying Tableau and Applying Excel

The ninth edition of *Cost Management* introduces data analytics and visualization assignments using “Applying Tableau” in *Connect*. This includes video and text instruction, assignment material, and feedback using cases developed for both programs. These cases and assignments provide vital training and development in one of the most important emerging aspects of management: using technology to navigate and analyze large data sets and facilitating clear understanding of data insights with effective visualization tools.

## New Excel Training: Videos, Documentation, and Integration

The Excel Tutorial videos and documentation for each chapter have been fully reproduced for the ninth edition, using Excel version 16. Students can simultaneously hone their Excel skills and apply those skills to managerial topics using functions such as pivot tables, charts and graphs, Goal Seek, Solver, and regression analysis. Tutorials are offered for each chapter in both step-by-step tutorial documents and videos. In addition, the book provides “Applying Excel” content within *Connect*, enabling instructors to more easily integrate Excel into their courses and allowing students further practice using algorithmic versions. As always, *Cost Management* is unique in its integration of Excel skills into both the text of the chapters and much of the end-of-chapter content.

## Certified Management Accountant (CMA) Exam Preparation: Practice Problems and Essays

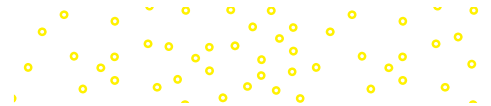
*Cost Management: A Strategic Emphasis, 9e*, also offers a large selection of recently used Certified Management Accountant (CMA) Exam problems and essay questions (with solutions) in *Connect*. These problems and essay questions are linked to the book chapters to which the topics most closely relate, and they create an even richer library of content (much of it auto-gradable) that instructors may use to build homework and other assignments. These problems also present valuable practice material for students who are interested in pursuing the CMA designation, either as students or following their formal education.

## Globalization and Anti-Globalization (“Brexit”)

From the first edition, the book has addressed globalization and global issues as an important feature of cost management with a strategic emphasis. Globalization appears frequently in the text and in the exercises and problems. A section in Chapter 1, under the heading The Global Business Environment, explains the new **economic nationalism** trends that oppose globalization. An example of this trend is the 2016 referendum in the United Kingdom in favor of separation from the EU (referred to as “Brexit”). Economic nationalism attempts to protect domestic workers and industries from foreign competition. It opposes globalization, free trade, and immigration. The effect of economic nationalism on the role of cost management can be significant, and we bring this up throughout the ninth edition.

## Integration of Important Topics throughout the Text

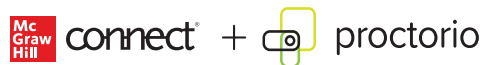
Key topic areas for the course are integrated across the chapters. As previously noted, strategy is integrated throughout the text. In addition, accounting for “lean” is included in four chapters as it relates to the subject matter of that chapter. Similarly, time-driven activity-based costing (TDABC) is covered in the ABC chapter (Chapter 5) and also in the chapter on budgeting (Chapter 10). ABC appears in most of the chapters in Part Two because it has a key role in planning and decision making. Nonfinancial performance measures and the balanced scorecard (BSC) are introduced in Part One and then covered as part of the operational and management control chapters included in Parts Three and Four. Resource



consumption accounting (RCA) is covered both in Chapter 5 and again in Chapter 15. The topic of capacity resource planning is covered in Chapters 10 and 15. These are just examples of the efforts the authors have made to integrate key topics throughout the text.

## Enhancing Features from Prior Editions

- Significant new material has been added to *Connect* to greatly enhance the usefulness of this teaching and learning environment.
- Chapters have been revised to include up-to-date issues in cost management and discuss how accountants are dealing with these issues; examples include the COVID recession, economic nationalism (Brexit), changes in sustainability reporting practices, data analytics, the volatility of foreign exchange rates, strategic cost management, and changes in management compensation practices, among others. Because of the strategic focus of the book, we put emphasis on providing current, real-world examples in the text and in the problem material. This material is then updated for each new edition.
- End-of-chapter exercises and problems have been improved, with a strong focus on providing clarity, a clear linkage to chapter learning objectives, with varying and appropriate levels of challenge.



## Remote Proctoring & Browser-Locking Capabilities

New remote proctoring and browser-locking capabilities, hosted by Proctorio within *Connect*, provide control of the assessment environment by enabling security options and verifying the identity of the student.

Seamlessly integrated within *Connect*, these services allow instructors to control students' assessment experience by restricting browser activity, recording students' activity, and verifying students are doing their own work.

Instant and detailed reporting gives instructors an at-a-glance view of potential academic integrity concerns, thereby avoiding personal bias and supporting evidence-based claims.

## Test Builder in Connect

Available within *Connect*, Test Builder is a cloud-based tool that enables instructors to format tests that can be printed or administered within an LMS. Test Builder offers a modern, streamlined interface for easy content configuration that matches course needs, without requiring a download.

Test Builder allows you to:

- Access all test bank content from a particular title.
- Easily pinpoint the most relevant content through robust filtering options.
- Manipulate the order of questions or scramble questions and/or answers.
- Pin questions to a specific location within a test.
- Determine your preferred treatment of algorithmic questions.
- Choose the layout and spacing.
- Add instructions and configure default settings.

Test Builder provides a secure interface for better protection of content and allows for just-in-time updates to flow directly into assessments.

## Tegrity: Lectures 24/7


Tegrity in *Connect* is a tool that makes class time available 24/7 by automatically capturing every lecture. With a simple one-click start-and-stop process, you capture all computer screens and corresponding audio in a format that is easy to search, frame by frame. Students can replay any part of any class with easy-to-use, browser-based viewing on a PC, Mac, iPod, or other mobile device. Educators know that the more students can see, hear, and experience class resources, the better they learn. In fact, studies prove it. Tegrity's unique search feature helps students efficiently find what they need, when they need it, across an entire semester of class recordings. Help turn your students' study time into learning moments immediately supported by your lecture. With Tegrity, you also increase intent listening and class participation by easing students' concerns about note-taking. Using Tegrity in *Connect* will make it more likely you will see students' faces, not the tops of their heads.



# Improving Student Success with *Connect*

## Production Budget – in units

Desired ending inventory (July 31) (The higher of 500 or $7,000 \times 0.1$ )	700
Budgeted sales for July	+ 6,000
Total units needed for July	6,700
Beginning inventory (July 1) (The higher of 500 and $6,000 \times 0.1$ )	- 600
Units to manufacture in July	6,100



## Connect *End-of-Chapter Material*

*Connect* helps students learn more efficiently by providing feedback and practice material when they need it, where they need it. *Connect* grades homework automatically and gives immediate feedback on any questions students may have missed. The extensive assignable, gradable end-of-chapter content includes a new multitab design for easier navigation for select exercises. Significant amounts of new auto-graded *Connect* content have been added with the ninth edition, including the problem set in both static and algorithmic form, select Cases, and Applying Excel questions, along with a new algorithmic test bank.

## McGraw Hill Education Customer Experience Group Contact Information

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## Assurance-of-Learning Ready

Many educational institutions today are focused on the notion of assurance of learning, an important element of many accreditation standards. *Cost Management: A Strategic Emphasis, 9e*, is designed specifically to support your assurance-of-learning initiatives with a simple, yet powerful, solution.

Each chapter in the book begins with a list of numbered learning objectives, which appear throughout the chapter as well as in the end-of-chapter assignments. Every Test Bank question for *Cost Management: A Strategic Emphasis* maps to a specific chapter learning objective in the textbook. Each Test Bank question also identifies topic area, level of difficulty, Bloom's Taxonomy level, and AICPA and AACSB skill area.

## AACSB Statement

McGraw Hill/Irwin is a proud corporate member of AACSB International. Understanding the importance and value of AACSB accreditation, *Cost Management: A Strategic Emphasis, 9e*, recognizes the curricular guidelines detailed in the AACSB standards for business accreditation by connecting selected questions in the text and the Test Bank to the general knowledge and skill guidelines in the revised AACSB standards.

The statements contained in *Cost Management: A Strategic Emphasis* are provided only as a guide for the users of this textbook. The AACSB leaves content coverage and assessment within the purview of individual schools, the mission of the school, and the faculty. While *Cost Management: A Strategic Emphasis, 9e*, and the teaching package make no claim of any specific AACSB qualification or evaluation, we have, within the text and test bank, labeled selected questions according to the eight general knowledge and skill areas.



# Enhancements for This Edition

## Part One: Introduction to Strategy, Cost Management, and Cost Systems

### Chapter 1: Cost Management and Strategy

- Updates to the chapter opener, all Real-World Focus items, Cost Management in Action discussion, and text references with current information
- Revision of text with updated information on economic nationalism and Brexit, business analytics, and professional certification details
- Three new problems based on current real-world trends, with clarifications and updates throughout the end-of-chapter materials and solutions

### Chapter 2: Implementing Strategy: The Value Chain, the Balanced Scorecard, and the Strategy Map

- Updates to the chapter opener and all Real-World Focus items with current information
- Revision of SWOT analysis with discussion of the impact of economic nationalism on opportunities and threats
- Clarification of text on value chain and supply chain, sustainability assurance and reporting, and the Balanced Scorecard
- Three new end-of-chapter problems addressing sustainability, economic nationalism, and the Balanced Scorecard

### Chapter 3: Basic Cost Management Concepts

- New Real-World Focus item discussing the impact of a cost structure decision at Caterpillar
- Updates to the Cost Management in Accounting item and the chapter's Five Steps of Strategic Decision Making section

- Clarification of language on cost behavior and cost classifications

### Chapter 4: Job Costing

- Change of Thomasville Furniture example to Tomlinson Furniture, with numerous text and numerical revisions throughout the chapter
- Two new Real-World Focus items (replacing one that was dated) about the strategic relationship between price and cost
- Updates to sections on cost flows, discussing technology and the proration method for disposition of over/underapplied overhead
- Additions and revisions to end-of-chapter content for adaptability in *Connect* and to add new requirements regarding the disposition of over/underapplied overhead

### Chapter 5: Activity-Based Costing and Customer Profitability Analysis

- Four new and one updated Real-World Focus items (replacing two that were dated), addressing service departments, patient profitability, and activity-based costing
- Minor revisions to end-of-chapter problems for clarity and adaptability in *Connect*

### Chapter 6: Process Costing

- Revised language to improve clarity throughout the chapter
- New Real-World Focus item about spoilage in jellybean production
- Updates and minor edits throughout the end-of-chapter problems material

### Chapter 7: Cost Allocation: Departments, Joint Products, and By-Products

- One new Real-World Focus item (about overhead costs and funding of

the National Institutes of Health) with updates to two others

- Clarifying language and footnote/exhibit revisions throughout
- Revisions to end-of-chapter materials and solution manual for minor errors and formatting

## Part Two: Planning and Decision Making

### Chapter 8: Cost Estimation

- Updated chapter opener with connection to Big Data and analytics
- Five new Real-World Focus items, addressing the importance of understanding cost structure, cost estimation challenges, the role of predictive analytics, and forecasting tools in professional football
- Minor updates and revisions to end-of-chapter materials and the solution manual

### Chapter 9: Short-Term Profit Planning: Cost-Volume-Profit (CVP) Analysis

- Updated chapter opener about iHeartRadio and CVP analysis
- Two new Real-World Focus items (discussing CVP analysis for airlines and sales mix at Apple) with updates to four others
- New exhibit (9.7) with a table of expected values to help improve the discussion of dealing with uncertainty
- Minor revisions to end-of-chapter material, including a new exercise on profit planning and point of indifference

### Chapter 10: Strategy and the Master Budget

- Updated chapter opener with current information about Johnson & Johnson
- Two new Real-World Focus items (discussing labor budgeting in the



video game production industry and budgeting in the nonprofit sector) with updates to three others

## Chapter 11: Decision Making with a Strategic Emphasis

- Move of the appendix (about linear programming and the product mix decision) to online-only content in *Connect*
- Two new Real-World Focus items, addressing the make-or-buy decision at Apple and the keep-or-drop decision at Merck
- Minor revisions to end-of-chapter material, including replacing one problem (11-43) with a new *Connect*-adaptable problem with advanced Excel content

## Chapter 12: Strategy and the Analysis of Capital Investments

- New chapter opener about Intel and capital budgeting
- Revisions to the Mendoza capital investment example to reflect MACRS 3-year depreciation, with numerous text and numerical revisions (including updated Excel screenshots) throughout
- Updates and revisions to four Real-World Focus items
- Two new problems, both available in *Connect*

## Chapter 13: Cost Planning for the Product Life Cycle: Target Costing, Theory of Constraints, and Strategic Pricing

- Two new Real-World Focus items (discussing designing for the market and pricing with artificial intelligence) with updates to three others
- Appendix and associated end-of-chapter content removed

## Part Three: Operational-Level Control

### Chapter 14: Operational Performance Measurement: Sales, Direct Cost Variances, and the

### Role of Nonfinancial Performance Measures

- Two new Real-World Focus items (discussing artificial intelligence in health care and outsourcing computing services) with removal of outdated items
- New Cost Management in Action item, discussing the limitations of (and alternatives to) standard costing systems)
- New problem about computing total price and usage variances with multiple material inputs

### Chapter 15: Operational Performance Measurement: Indirect Cost Variances and Resource Capacity Management

- Minor revisions throughout for consistency, such as replacing “absorption costing” with “full costing” and “CGS” with “COGS” throughout the chapter (and the book)
- Two new Real-World Focus items (discussing employee engagement at Ameritech and nonprofit investments in technology) with updates to one other

### Chapter 16: Operational Performance Measurement: Further Analysis of Productivity and Sales

- Revisions to two Real-World Focus items and the chapter opener based on current information
- Minor updates and revisions to end-of-chapter material

### Chapter 17: The Management and Control of Quality

- Revisions and streamlining of chapter opener about quality in the health care sector
- Updates to two Real-World Focus items (discussing the cost of poor quality and airline quality ratings) and the Cost Management in Action item based on current information and examples
- Updates to information about the Baldrige Award and the Shingo Prize with current information

## Part Four: Management-Level Control

### Chapter 18: Strategic Performance Measurement: Cost Centers, Profit Centers, and the Balanced Scorecard

- Language revisions throughout the text, including replacing “uncertainty” with “controllability” and “lack of observability” with “information asymmetry” in discussion of agency theory
- New Real-World Focus item (addressing the effects of outsourcing on median pay levels at Hasbro and Mattel)
- Numerous revisions to end-of-chapter materials, including converting a number of problems to single answer format, better suited for algorithmic conversion in *Connect*

### Chapter 19: Strategic Performance Measurement: Investment Centers and Transfer Pricing

- Minor revisions of text for clarity, efficiency, and accuracy, including removal of outdated financial reporting information about leases
- Updates to two Real-World Focus items with current information/examples
- Revisions to some end-of-chapter materials to improve adaptability to algorithmic conversion in *Connect*

### Chapter 20: Management Compensation, Business Analysis, and Business Valuation

- New chapter opener about CEO compensation at Bank of America
- Updates to three Real-World Focus items with current information (about SEC disclosure and say on pay, employee stock ownership at Comcast, and the S&P 500 PE ratio over time)
- Updates to end-of-chapter problems based on real-world data (e.g., Yum! Brands financials, CEO compensation), along with other adjustment from multiple-choice to single answer to better facilitate algorithmic conversion in *Connect*



# Acknowledgments

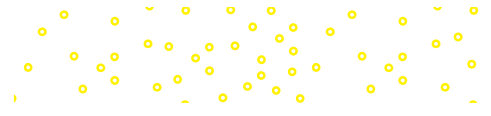
## Our Sincerest Thanks . . .

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- 



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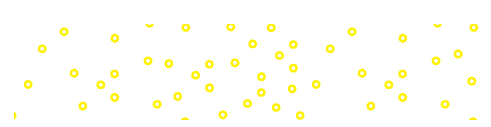
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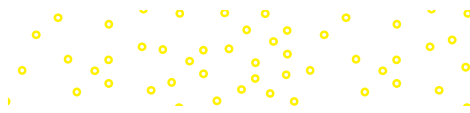
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## PART ONE

# Introduction to Strategy, Cost Management, and Cost Systems

The objective of the first seven chapters is to introduce the strategic approach to cost management and to cover the basic concepts of cost management systems.

**Chapter 1** is an introduction to cost management—how organizations plan for success through strategy, and the management accountant’s role in implementing strategy. The chapter includes an introduction to the current environment of business, including contemporary management techniques and professional responsibilities.

**Chapter 2** focuses on some of the principal means that organizations use to implement strategy. The chapter introduces a strategic management system known as the balanced scorecard (BSC), the strategy map, and the value chain and shows how these tools can be used to help the organization implement its strategy. These tools are foundational tools that appear throughout the text; this is why they are covered in this early chapter.

**Chapter 3** defines the key terms that management accountants use to describe product cost systems and cost information for planning, decision making, and control. This terminology is important for both accountants and managers alike. The chapter also introduces the differences in management accounting among service, manufacturing, and merchandising companies.

**Chapters 4, 5, 6, and 7** cover costing systems and their role in strategy implementation.

**Chapter 4** provides an introduction to costing systems by defining the elements of cost and how these elements are combined to determine the cost of a product or service. There are a number of variations on this basic cost system, each of which is designed to fit a particular manufacturing or service environment. These variations are explained in **Chapters 5, 6, and 7**.

**Chapter 5** covers a strategically important advance in product costing called activity-based costing (ABC). Rather than using the volume-based approach (explained in Chapter 4), the ABC approach incorporates the details of all the activities that are needed to provide the product or service. The result is much more accurate, and therefore more strategically useful, cost information regarding the resource demands of an organization’s outputs.

**Chapter 6** introduces process costing, a costing system that is applicable for firms that have relatively homogeneous products passing through similar processing steps, often in a continuous flow. Commodity-based industries are of this nature: food processing, chemical, and consumer products firms. These types of firms generally compete using a cost-leadership strategy.

**Chapter 7** covers cost-allocation issues associated with costing systems—departmental cost allocation and joint cost allocation. The chapter begins with an overview of the objectives and strategic role of cost allocation and then shows how departmental costs and joint costs are allocated to products.

## CHAPTER ONE

# Cost Management and Strategy

### After studying this chapter, you should be able to . . .

- LO 1-1 Explain the use of cost management information in each of the four functions of management and in different types of organizations, with emphasis on the strategic management function.
- LO 1-2 Explain the contemporary business environment and how it has influenced cost management.
- LO 1-3 Explain the contemporary management techniques and how they are used in cost management to respond to the contemporary business environment.
- LO 1-4 Explain the different types of competitive strategies.
- LO 1-5 Describe the professional environment of the management accountant, including professional organizations and professional certifications.
- LO 1-6 Understand the principles and rules of professional ethics and explain how to apply them.



deanpictures/123RF

Talk about a success story! Walmart has grown from its first discount store in 1962 to become the world's largest company, with more than \$500 billion in sales. It has achieved this through clear, day-to-day attention to accomplishing its business strategy and to living up to its motto of "Save Money, Live Better." Walmart achieves success through extensive use of technology and aggressive efforts to grow the business globally. And the environment is very competitive! A key competitor, Target, with a different strategy and a different motto ("Expect More, Pay Less<sup>®</sup>") has challenged Walmart with aggressive advertising campaigns and new stores. During the 2004–2007 period, Target was outpacing Walmart in sales growth and stock price growth. This reversed in 2008, as the global economic outlook weakened for many consumers and the low-cost strategy of Walmart proved to be more successful. Since 2009, both Walmart and Target have been facing the heat of increased competition from both Amazon.com and Costco, as well as other retailers such as Dollar General. The stakes are high and the competition is fierce. Imagine yourself as a manager for one of these companies. How would you help your company be more competitive?

This book is about how managers use cost management to build a successful company, as those at Walmart and Target have done. Everyone wants to be a winner, and so it is in business and accounting. We are interested in how the management accountant can play a key role in making a firm or organization successful. Now you might be asking, "Don't we have to know what you mean by *success*?" Absolutely! A firm must define clearly what it means by success in its mission statement. Then it must develop a road map to accomplish that mission, which we call *strategy*. Briefly, strategy is a plan to achieve competitive success. In Walmart's case, the mission is to achieve customer value, and the strategy involves the extensive use of technology to reduce cost, a management structure that welcomes change, and a constant focus on customer service. For Target, the competitive focus is the promise of value through brand recognition, customer service, store location, differentiated offerings, quality, fashion, and price.

Because we are interested in how the management accountant can help a company be successful, we take a strategic approach throughout the book, beginning with an introduction to strategy in this chapter. The key idea is that success comes from developing and implementing an effective strategy aided by management accounting methods. These management accounting methods are covered in this text chapter by chapter; we include them in the text because we know they have helped companies succeed.

### cost management information

The information developed and used to implement the organization's strategy. It consists of financial information about costs and revenues and nonfinancial information about customer retention, productivity, quality, and other key success factors for the organization.

#### LO 1-1

Explain the use of cost management information in each of the four functions of management and in different types of organizations, with emphasis on the strategic management function.

### cost management

The development and use of cost management information.

### management accounting

A profession that involves partnering in management decision making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization's strategy.

## Management Accounting and the Role of Cost Management

Management accountants are the accounting and finance professionals who develop and use cost management information to assist in implementing the organization's strategy. **Cost management information** consists of financial information about costs and revenues and nonfinancial information about customer retention, productivity, quality, and other key success factors for the organization. **Cost management** is the development and use of cost management information.

The strategic role of the management accountant in an organization is explained in the definition of management accounting provided by the Institute of Management Accountants (IMA). Relevant additional information on the definition can be found in the IMA's Statement on Management Accounting: *Definition of Management Accounting*.<sup>1</sup>

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**Management accounting** is a profession that involves partnering in management decision making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization's strategy.

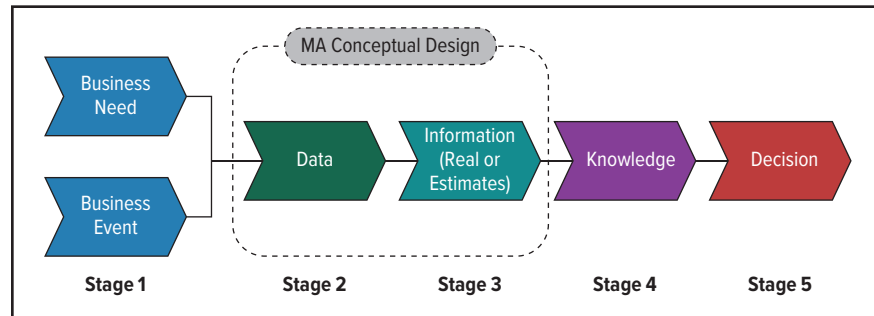
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Management accountants use their unique expertise (decision making, planning, performance management, and more), working with the organization's managers, to help the organization succeed in formulating and implementing its strategy. Cost management

<sup>1</sup><https://www.imanet.org/insights-and-trends/statements-on-management-accounting?ssopc=1>



information is developed and used within the organization's information value chain, from stage 1 through stage 5, as shown below:

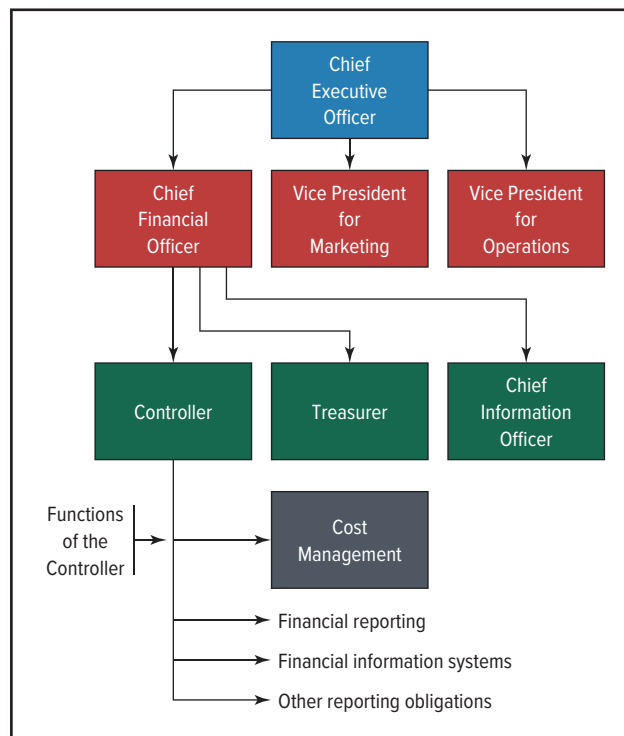


At lower stages of the value chain, management accountants gather and summarize data (stage 2) from business events (stage 1) and then transform the data to cost management information (stage 3) through analysis and use of the management accountants' expertise. At stage 4, cost management information is combined with other information about the organization's strategy and competitive environment to produce actionable knowledge. At stage 5, management accountants use this knowledge to participate with management teams in making decisions that advance the organization's strategy.

In a typical organization (illustrated in Exhibit 1.1), management accountants report to the controller, a key accounting professional in the firm. The controller, assisted by management accountants, has a wide range of responsibilities, including cost management, financial reporting, maintaining of financial information systems, and other reporting functions. The chief financial officer (CFO) has the overall responsibility for the financial function, the treasurer manages investor and creditor relationships, and the chief information officer (CIO) manages the firm's use of information technology, including computer systems and communications.

In contrast to the cost management function, the financial reporting function involves preparing financial statements for *external users* such as investors and government regulators.

**EXHIBIT 1.1**  
A Typical Organization Chart  
Showing the Functions of the  
Controller



## REAL-WORLD FOCUS Why Strategy? Managers Tell Us Why

Our unique approach in this book is to demonstrate cost management from a strategic emphasis. Every cost management method we cover is linked to the firm's strategy—that is, how the method helps the firm to be successful. Why emphasize the strategic approach? Managers tell us why . . .

A recent survey of 1,500 controllers and other financial executives found that 91% of all organizations expect the controllership function to be more involved in the organization's strategy. Also, a survey of 750 chief financial officers (CFOs) conducted jointly by the Institute of Management Accountants (IMA) and the Association of Chartered Certified Accountants (ACCA) found that "the future CFO role in supporting strategic growth will be increasingly valued. Strategy formulation and execution was identified by current CFOs as the most important area in which to have experience for future CFOs." A 2014 survey of 600 financial executives by Accenture, a consulting firm, found results that confirmed the IMA/ACCA findings.

The Society of Management Accountants of Canada has developed a competency framework for certified

management accountants in Canada, which has the following introduction:

Certified Management Accountants (CMAs) do more than just measure value—they create it. As the leaders in management accounting, CMAs apply a unique mix of financial expertise, strategic insight, innovative thinking and a collaborative approach to help grow successful businesses.

**Sources:** Daniel Butcher, "The Changing Role of the CFO," *Strategic Finance*, December 2019, pp. 21–23; Elizabeth Kennedy, "Controllers: Get Strategic!," *Strategic Finance*, May 2017, p. 13; Raef Lawson, "Become Business Partners," *Strategic Finance*, July 2016, pp. 25–31; Benjamin Kang, "Managing the Strategic Finance Gap," *Strategic Finance*, February 2014, pp. 43–48; "Future Pathways to Finance Leadership," Institute of Management Accountants and the Association of Chartered Certified Accountants, April 2014 ([www.accaglobal.com/content/dam/accaglobal/PDF-technical/finance-transformation/cfo-career-paths.pdf](http://www.accaglobal.com/content/dam/accaglobal/PDF-technical/finance-transformation/cfo-career-paths.pdf)); "Building a Better Business Together: Welcome to Finance Business Partnering," The Association of International Certified Professional Accountants, 2018 ([www.cgma.org/content/dam/cgma/resources/reports/downloadabledocuments/cgma-finance-business-partnering.pdf](http://www.cgma.org/content/dam/cgma/resources/reports/downloadabledocuments/cgma-finance-business-partnering.pdf)); "Competency Map of the CMA Profession," The Chartered Professional Accountants of Canada ([www.cpacanada.ca/](http://www.cpacanada.ca/)).

These financial accounting reports require compliance with certain external requirements. Cost management information is developed for use *within* the firm to facilitate management and is not needed to meet those requirements. The main focus of cost management information therefore must be *usefulness* and *timeliness*; the focus of financial reports must be *accuracy* and *compliance* with reporting requirements. However, strict adherence to accuracy can compromise the usefulness and timeliness of the information. The function of the financial information systems department is to develop and maintain the financial reporting system and related systems such as payroll, financial security systems, and tax preparation. The challenge for the controller is to reconcile these different and potentially conflicting roles.

### The Four Functions of Management

The management accountant develops cost management information for the CFO, other managers, and employee teams to use to manage the firm and make the firm more competitive and successful. Cost management information is provided for each of the four major management functions: (1) strategic management, (2) planning and decision making, (3) management and operational control, and (4) preparation of financial statements. (See Exhibit 1.2.) The most important function is **strategic management**, which is the

#### strategic management

The development and implementation of a sustainable competitive position.

#### EXHIBIT 1.2

#### Cost Management Information Is Needed for Each of the Four Management Functions

- 1. Strategic Management.** Cost management information is needed to make sound strategic decisions regarding choice of products, manufacturing methods, marketing techniques and distribution channels, customer profitability, and other long-term issues.
- 2. Planning and Decision Making.** Cost management information is needed to support recurring decisions regarding replacing equipment, managing cash flow, budgeting materials purchases, scheduling production, and pricing.
- 3. Management and Operational Control.** Cost management information is needed to provide a fair and effective basis for identifying inefficient operations and to reward and motivate the most effective managers.
- 4. Preparation of Financial Statements.** Cost management information is needed to provide accurate accounting for inventory and other assets, in compliance with reporting requirements, for the preparation of financial reports and for use in the three other management functions.

**planning and decision making**

Budgeting and profit planning, cash flow management, and other decisions related to operations.

**operational control**

The monitoring of short-term operating performance; takes place when mid-level managers monitor the activities of operating-level managers and employees.

**management control**

The system used by upper-level managers to evaluate the performance of mid-level managers.

**preparation of financial statements**

Requires management to comply with the financial reporting requirements of regulatory agencies.

development and implementation of a sustainable competitive position in which the firm's competitive advantage provides continued success. A strategy is a set of goals and specific action plans that, if achieved, provide the desired competitive advantage. Strategic management involves identifying and implementing these goals and action plans. Next, management is responsible for **planning and decision making**, which involve budgeting and profit planning, cash flow management, and other decisions related to the firm's operations, such as deciding when to lease or buy a facility, when to repair or replace a piece of equipment, when to change a marketing plan, and when to begin development of a new product.

The third area of responsibility, control, consists of two functions, operational control and management control. **Operational control** takes place when mid-level managers (e.g., site managers, product managers, regional managers) monitor the activities of operating-level managers and employees (e.g., production supervisors and various department heads). In contrast, **management control** is the evaluation of mid-level managers by upper-level managers (the controller or the CFO).

In the fourth function, **preparation of financial statements**, management complies with the reporting requirements of relevant groups (such as the Financial Accounting Standards Board) and relevant federal government authorities (e.g., the Internal Revenue Service and the Securities and Exchange Commission). The financial statement preparation role has recently received a renewed focus as countries throughout the world have adopted International Financial Reporting Standards (IFRS). The financial statement information also serves the other three management functions because this information is often an important part of planning and decision making, control, and strategic management.<sup>2</sup>

The first three management functions are covered in this text. Strategic management and the design of the costs systems upon which strategic decisions rely are covered in Part One. Part Two covers planning and decision making, Part Three covers operational control, and Part Four covers management control. Financial reporting for inventory and cost of sales is covered in Part One.

A comprehensive coverage of financial reporting is covered in courses on financial accounting, the field concerned with reporting the financial statements to investors, regulators, and other interested parties.

## Strategic Management and the Strategic Emphasis in Cost Management

Effective strategic management is critical to the success of the firm or organization and is thus a pervasive theme of this book. The growing pressures of economic recession, global competition, technological innovation, and changes in business processes have made cost management much more critical and dynamic than ever before. Managers must think *competitively*; doing so requires a strategy.

Strategic thinking involves anticipating changes; products, services, and operating processes are designed to accommodate expected changes in customer demands. Flexibility is important. The ability to make fast changes is critical as a result of the demands of the new management concepts of e-commerce, speed-to-market, and flexible manufacturing. Product life cycles—the time from the introduction of a new product to its removal from the market—are expected to become shorter and shorter. Success in the recent past days or months is no longer a measure of ultimate success; the manager must be “driving” the firm by using the windshield, not the rear-view mirror.

The strategic emphasis also requires creative and integrative thinking, that is, the ability to identify and solve problems from a cross-functional view. The business functions are often identified as marketing, production, finance, and accounting/controllership. Instead of viewing a problem as a production problem, a marketing problem, or a finance and accounting problem, cross-functional teams view it from an integrative approach that combines skills from all functions simultaneously. The integrative approach is necessary in a dynamic and competitive environment. The firm's attention is focused on satisfying the customers' needs; all of the firm's resources, *from all functions*, are directed to that goal.

<sup>2</sup>The professional and regulatory organizations such as the Financial Accounting Standards Board and the Securities and Exchange Commission are identified and explained at the end of this chapter.

## Types of Organizations

Cost management information is useful in all organizations: business firms, governmental units, and not-for-profit organizations. Business firms are usually categorized by industry, the main categories being merchandising, manufacturing, and service. Merchandising firms purchase goods for resale. Merchandisers that sell to other merchandisers are called *wholesalers*; those selling directly to consumers are called *retailers*. Examples of merchandising firms are the large retailers, such as Walmart, Target, and Amazon.

Manufacturing firms use materials, labor, and manufacturing facilities and equipment to produce products. They sell these products to merchandising firms or to other manufacturers as materials to make other products. Examples of manufacturers are Ford, General Electric, and Cisco Systems.

Service firms provide a service to customers that offers convenience, freedom, safety, or comfort. Common services include transportation, health care, financial services (banking, insurance, accounting), personal services (physical training, hair styling), and legal services. In the United States, service industries are growing at a much faster rate than manufacturing or merchandising, in part because of the increased demand for leisure and convenience and society's increased complexity and need for information.

Governmental and not-for-profit organizations provide services, much like the firms in service industries. However, these organizations provide the services for which no direct relationship exists between the amount paid and the services provided. Instead, both the nature of these services and the customers who receive them are determined by government or philanthropic organizations. The resources are provided by governmental units and/or charities. The services provided by these organizations are often called *public goods* to indicate that no typical market exists for them. Public goods have a number of unique characteristics, such as the impracticality of limiting consumption to a single customer (clean water and police and fire protection are provided for *all* residents).

Most firms and organizations use cost management information. For example, manufacturing firms use it to manage production costs. Similarly, retail firms such as Walmart use cost management information to manage stocking, distribution, and customer service. Firms in the service industries, such as those providing financial services or other professional services, use cost management information to identify the most profitable services and to manage the costs of providing those services.

Cost management information is used in a wide variety of ways. Whatever the business, a firm must know the cost of new products or services, the cost of making improvements in existing products or services, and the cost of finding a new way to produce the products or provide the services. Cost management information is used to determine prices, to change product or service offerings to improve profitability, to update manufacturing facilities in a timely fashion, and to determine new marketing methods or distribution channels. For example, manufacturers such as Toyota study the cost implications of design options for each new product. The design study includes analysis of projected manufacturing costs as well as costs to be incurred after the product is completed, which include service and warranty costs. Service and warranty costs are often called *downstream costs* because they occur after manufacturing. By analyzing both manufacturing and downstream costs, a company is able to determine whether product enhancements might cause manufacturing and downstream costs to be out of line with expected increases in customer value and revenue for that feature.

Both large and small firms in all types of industries use cost management information. A firm's degree of reliance on cost management depends on the nature of its competitive strategy. Many firms compete on the basis of being the low-cost provider of the industry's goods or services; for these firms, cost management is critical. Other firms, such as cosmetics, fashion, and pharmaceutical firms, compete on the basis of product leadership, in which the unusual or innovative features of the product make the firm successful. For these firms, the critical management concern is maintaining product leadership through product development and marketing. The role of cost management is to support the firm's strategy by providing the information managers need to succeed in their product development and marketing efforts, such as the expected cost of adding a new product feature, the defect rate of a new part, or the reliability of a new manufacturing process.

Not-for-profit and governmental organizations also must have a strategy to accomplish their mission and satisfy their constituents. Historically, governmental units and not-for-profit agencies have tended to focus on their responsibility to spend in approved ways rather than to spend in efficient and effective ways. Increasingly, however, these types of organizations are using cost management for efficient and effective use of their financial resources.

## The Contemporary Business Environment

### LO 1-2

Explain the contemporary business environment and how it has influenced cost management.

Many changes in the business environment in recent years have caused significant modifications in cost management practices. The primary changes are (1) continuing growth in global competition along with the emergence of forces opposed to globalization; (2) lean manufacturing; (3) advances in information technologies, the internet, and enterprise resource management; (4) continued focus on the customer, though influenced by the growth in economic nationalism; (5) new forms of management organization; and (6) changes in the social, political, and cultural environment of business, including the impact of climate change. The current global economic challenges (high public debt, tariffs, and concerns about immigration, among others) will surely have a significant effect on each of these six changes. It is likely there will be an even greater rate of change in each of these six areas as firms search for new ways to compete and governmental regulations adapt to the difficult economic times.

### The Global Business Environment

A key development that drives the extensive changes in the contemporary business environment is the growth of international markets and trade due to the rise of economies throughout the world and the decline of trade barriers in some countries. Businesses and not-for-profit organizations, as well as consumers and regulators, are all significantly affected by the rapid growth of economic interdependence and increased competition from other countries. Here are some examples of global interdependence. The United States, Mexico, Canada Agreement (USMCA; ratified March 12, 2020) revises and replaces the North American Free Trade Agreement (NAFTA) between these three countries, the Central America Free Trade Agreement (CAFTA), the World Trade Organization (WTO), the European Union (EU), and the growing number of alliances among large multinational firms clearly indicate that the opportunities for growth and profitability lie in global markets. Most consumers benefit as low-cost, high-quality goods are traded worldwide. Managers and business owners know the importance of pursuing sales and operating activities in foreign countries, and investors benefit from the increased opportunities for investment in foreign firms.

### A Force against Globalization: Economic Nationalism

The expansion of globalization has faced a strong counter-force in a number of ways since June 2016. For example, a referendum on membership in the European Union (EU) held in the United Kingdom (UK) in June 2016 resulted in a vote in favor of separating the UK from the EU (this separation is called Brexit, or “British Exit”). On January 31, 2020, the issue was resolved when the UK parliament voted to end the country’s 47 years in the EU. There is an 11-month transition period (ending December 31, 2020) in which the EU and UK will determine the details of the relationships between the UK and the EU going forward. Key matters to be resolved include trading relationships between the two parties, whether there will be tariffs, quotas, or other trade limitations. Other matters to be resolved include travel between the UK and EU, customs and immigration, product safety standards, among others.

Also, there is a continuing strong worldwide growth of interest in protecting domestic workers and industries from foreign competition. Many have called this trend **economic nationalism**, which is the ideology that promotes domestic economic growth and opposes globalization, free trade, and immigration.

### Economic Nationalism: Tariffs

An important element of economic nationalism is the intent to protect domestic workers and industries through tariffs. A tariff is an additional cost that importers must pay, thus increasing the cost to consumers of the imported product and making domestic products more attractive

#### economic nationalism

The ideology that promotes domestic economic growth and opposes globalization, free trade, and immigration.

## REAL-WORLD FOCUS Going Global: The Growing Importance of Worldwide Markets

The following table indicates the percentage of sales coming from outside the domestic market for the listed companies. Global sales have been crucial for these and many other companies. For example, while in 1970 the value of global trade was less than 30% of global gross domestic product (GDP), in 2019 that percentage had grown to 60%. (Source: World Bank)

	1993	2007	2019
General Electric	17%	50%	62%
Walmart	0.0	22	24
McDonald's	47	65	64

Sources: Company annual reports.

### THE OUTLOOK FOR GLOBALIZATION AND ECONOMIC NATIONALISM

In the recent couple of years, we have seen economic nationalism strengthen in the U.S., the UK, Eastern Europe, and elsewhere in the world. Leaders of these countries have pushed for tariffs, for limiting immigration, and for ending established free trade policies. In their place, however, we have seen the growth of trading relationships in other areas of the world. For example, in 2018, Japan, Australia, Brunei, Canada, Vietnam, Singapore, Mexico, Chile, Peru, Malaysia, and New Zealand formed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP), which links these 11 countries in a trading partnership. Also, in May 2019, 55 African countries joined the African Free Trade Treaty.

Sources: Michael Schuman, "Globalization Isn't Going Away," *Bloomberg Businessweek*, March 19, 2018, pp. 14–15; David Brooks, "The Revolt Against Populism," *The New York Times*, November 21, 2019.

to consumers. Tariffs have their basis in the concept of *mercantilism*, common in the 17th and 18th centuries, which measured the strength of an economy by the maximization of exports and the minimization of imports. When two or more countries adopt tariffs against each other, it is often called a "trade war."

### Tariffs: Economic Uncertainty and Volatility

A typical consequence of tariffs and trade wars is increased economic uncertainty, as manufacturers and other companies try to forecast the changes in costs and prices that the trade war will cause. This uncertainty generally leads to lower or delayed investment by companies as they wait to see how the trade war develops. The uncertainty is also often associated with volatility in costs and prices that are important to the company. A good reference on the impact of uncertainty and volatility on the finance function of the company can be found in the joint publication by the Institute of Management Accountants (IMA) and the Association of Chartered Certified Accountants (ACCA): *Tomorrow's Finance Enterprise* ([www.accaglobal.com/us/en/technical-activities/technical-resources-search/2014/april/tomorrows-finance-enterprise.html](http://www.accaglobal.com/us/en/technical-activities/technical-resources-search/2014/april/tomorrows-finance-enterprise.html)).<sup>3</sup> The conclusion of the report states: "Economic uncertainty, volatility, risk, and ambiguity are the critical challenges facing business today. This research is further evidence of the CFO's strategic business role and the need for greater alignment between business strategy and the role of the finance team, particularly the establishment of processes, systems or metrics for tracking success."

Another element of economic uncertainty that has created volatility in costs, prices, and stock values is the corona virus pandemic that started in China in late 2019 and is now (July 2020) world-wide. In addition to the human cost, the pandemic has caused severe disruption in some global supply chains as governments adopt regulations to minimize the flow of people and goods from country to country in order to halt the spread of the virus. The ultimate economic damage of the virus is difficult to estimate at this time but is expected to be very significant.

Apart from Brexit and the emergence of economic nationalism in countries around the world, it is clear that the increasing competitiveness and complexity of the global business environment means that firms need financial and nonfinancial information about competing effectively in other countries. Global business is covered in each chapter; look for the international icon next to problems involving global business. The international icon is shown in the margin opposite this paragraph.



<sup>3</sup> See also Michael Regan, "The Chaos Cycle," *Bloomberg Businessweek*, August 12, 2019, pp. 24–26; and Shawn Donnan, "Weaponizing Uncertainty," *Bloomberg Businessweek*, December 17, 2018, pp 34–35.