

A close-up photograph of a hand moving a golden chess piece on a chessboard. The hand is in the foreground, and the chessboard is in the background. The lighting is soft and focused on the hand and the piece being moved.

# Cost Management

A Strategic Emphasis

8e

Edward J. **Blocher**

David E. **Stout**

Paul E. **Juras**

Steven **Smith**

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Education



# Cost Management

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**A Strategic Emphasis**

*Eighth Edition*

**Edward J. Blocher**

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

**David E. Stout**

*Villanova University  
Villanova School of Business*

**Paul E. Juras**

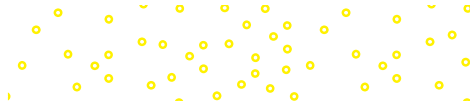
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Accountancy and Law Division*

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*Brigham Young University  
Marriott School of Business*

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COST MANAGEMENT: A STRATEGIC EMPHASIS, EIGHTH EDITION

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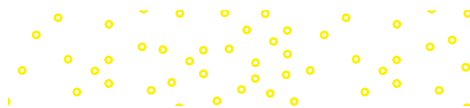
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We dedicate this edition . . .

To my wife, Sandy, and our sons, Joseph  
and David, and to my mentor, R. Lee  
Brummet

Ed Blocher

To my wife, Anne, and our sons, David and  
Kevin

David E. Stout

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

Paul Juras

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

Steve Smith





# Meet the Authors



**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.



**David E. Stout** is currently the director of the Master of Accounting (MAcc) programs at Villanova University. From 2003 to 2017, Professor Stout was the John S. and Doris M. Andrews Professor of Accounting at Youngstown State University. Previously, he was the John M. Cooney Professor of Accounting at Villanova University. Prior to this, he served as a faculty member at Rider University. Professor Stout earned his PhD in accounting (1982) from the Katz Graduate School of Business, University of Pittsburgh. He served previously as editor of *Issues in Accounting Education* and as editor-in-chief of the *Journal of Accounting Education*. Professor Stout has published more than 100 articles in professional and academic journals, including *Advances in Accounting Education*, *Issues in Accounting Education*, the *Journal of Accounting Education*, *The Accounting Educators' Journal*, *Advances in International Accounting*, *Behavioral Research in Accounting (BRIA)*, *The CPA Journal*, *Educational and Psychological Measurement*, the *IMA Educational Case Journal*, *Managerial Finance*, *Management Accounting*, *Management Accounting Quarterly*, *Financial Practice and Education*, *Strategic Finance*, and *Advances in Accounting*. He is past president of the Teaching, Learning & Curriculum (TLC) Section of the American Accounting Association (AAA), past president of the Academy of Business Education (ABE), and past president of the AAA Ohio Region. During the period 2011–2014, Professor Stout served as a member of the AAA Board of Directors. In 2007, he received the R. Lee Brummet Award for Distinguished Accounting Educators, Institute of Management Accountants (IMA), and the Ohio Outstanding Accounting Educator Award, which is co-sponsored by the Ohio Society of CPAs and the AAA's Ohio Region. In 2008, Professor Stout received the Distinguished Achievement in Accounting Education Award from the AICPA, and the Distinguished Service Award for Educators given by the IMA. Also in 2008, Professor Stout was inducted into the Hall of Honor of the AAA TLC Section and was selected by *Ohio Magazine* as one of Ohio's Outstanding College and University Teachers. In 2012, he was a co-recipient of the Jim Bulloch Award for Innovations in Management Accounting Education, an award given annually by the Management Accounting Section



(MAS) of the AAA and sponsored by the IMA. In 2015, Professor Stout was the recipient of the 2015 AAA Outstanding Educator Award. From 2010 to 2016, 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 curricular recommendations for accounting education. In 2016, Professor Stout received the Lifetime Service Award from the AAA for his contributions to accounting education. In 2017, he received the AAA Ohio Region President's Award for Lifetime Exemplary service to the region.



**Paul E. Juras** is the 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 teaches managerial accounting and strategic cost management courses and has taught in the undergraduate program, the Masters of Science in Accountancy program, and the MBA program at Wake Forest University. He has also taught in the undergraduate, the full-time MBA, the evening MBA, and the blended-learning MBA programs 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. He is currently a member of the IMA Global Board of Directors and serves as chair of the Institute of Certified Management Accountants, the organization responsible for the CMA certification. In addition, Professor Juras served a three-year term as chair of the IMA Research Foundation and 10 years as an associate editor of the *IMA Educational Case Journal*.



**Steven D. Smith** is an associate professor of accountancy and the 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 full-time and executive MBA programs 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 *Accounting Horizons*. He has presented his research at numerous conferences and invited presentations throughout the world. Professor Smith 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/Stout/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.

## Key Text Features That Integrate Strategy

**REAL-WORLD FOCUS** Globalization, Strategy, and Exchange Rates: The Euro

Since January 1999, the euro has been used as the common currency of most European Union (EU) countries. For the first 20 months following its introduction, the euro steadily lost about 25% of its value relative to the U.S. dollar. Due to changing economic circumstances, the euro began to rise in early 2002 and in August 2008 had risen to \$1.59. It then fell to a value of \$1.26 in March 2009 due, in part, to falling oil prices and recession pressures in the EU during the fall of 2008. The euro remained fairly steady at that level from 2008 through July 2014. Since then, the euro has fallen dramatically, losing more than \$690 million, or approximately 3% of total sales (15% of net income), due to a decline in the currencies of the foreign countries where the company operates. In sum, companies with a significant global component to their business must plan strategically for dealing with the effects on their business of changing exchange rates.

\*The Economic and Monetary Union (EMU) of Europe has 28 member countries, 19 of which have adopted the European currency, the euro. The UK is currently in the European Union but is not one of the Euro countries, and it has always retained its currency, the pound. When the UK is no longer a part of the EU, it will leave the EMU.

**Real-World Focus *Cost Management, 8e***, 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** The Value Chain in Action: Inside the Samsung Phone

Samsung, the South Korean consumer electronics giant, includes six main components in its smartphones: (1) display and touchscreen, (2) memory chip, (3) processor, (4) camera, (5) wireless electronics, and (6) battery. Samsung manufactures a wide range of electronic products in addition to the smartphone, including televisions, monitors, tablets, cameras, and a variety of chips.

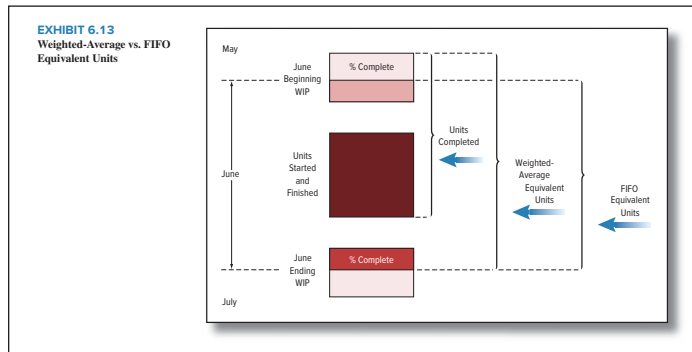
**Required**

1. What strategy (cost leadership or differentiation) do you think Samsung uses and why?
2. Consider the six components of Samsung's smartphones listed above. Which do you think are manufactured by Samsung? Which components do you think are purchased from other manufacturers? That is, how much does Samsung rely on its own manufacturing in the value chain for its smartphones?
3. Apple has a very similar set of components for its smartphones. How similar do you think the two firms' value chains are likely to be?

**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 the *Harvard Business Review (HBR)*. 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:



# Helping Students Succeed Using *Cost Management, 8e*



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

## **A Framework to Integrate 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 eighth 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 the decision that will address the business-related problems presented in that chapter.

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

The current globally competitive 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 response to the globally competitive 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, immigration policies and the protection of domestic workers. We first saw this in June 2016, when a referendum in the United Kingdom concerning the UK’s membership in the European Union (EU) favored separation (this separation is called Brexit, or “British Exit”).

## **ADDITIONAL INSTRUCTOR AND STUDENT RESOURCES**

**Excel Tutorials** The eighth edition has revised, reorganized, and expanded the Excel tutorial content. 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 as “Applying Excel” content types within *Connect*, enabling instructors to more easily integrate Excel into their courses and allowing students further practice using algorithmic versions.

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.

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

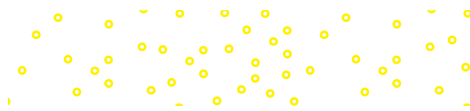
Party Budget	\$ 7,500
# of People Attending	650
Total Cost	\$ 7,750
Who should be invited?	Invite members only

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.





**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 now offered as auto-graded assignments in *Connect* in the eighth 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** The eighth edition offers algorithmic versions of the end-of-chapter 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:

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

eBook

Print

References

**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

5

6

7

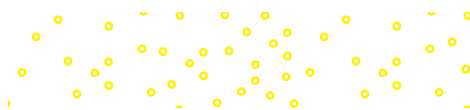
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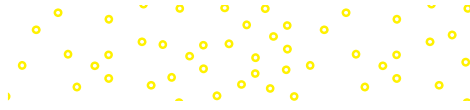
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## Connect Library

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 Word and Excel form.
- Teaching notes for the Cases and Reading Supplements.

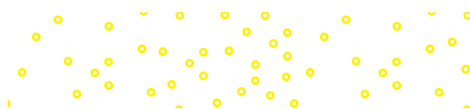




- PowerPoint lecture presentations.
- Test bank (including TestGen and Test Bank Matrices). TestGen is a complete, state-of-the-art test generator and editing application software that allows instructors to quickly and easily select test items from McGraw-Hill's test bank content. The instructors can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

The Additional Student Resources include:

- Excel Tutorials.
- Check Figures.
- Self-Study Problems.
- PowerPoints.
- Cases and Readings Supplement.
- Regression Analysis Supplement.
- Variance Investigation Supplement
- Cases for SAS's ABC (Oros Quick®) Software.

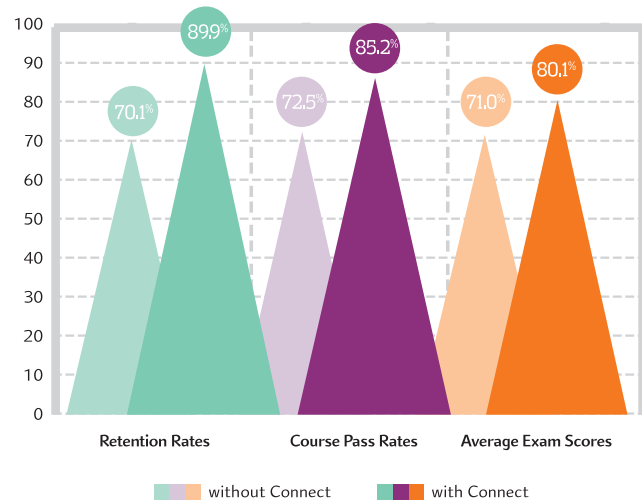


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- Connect's assignments help students contextualize what they've learned through application, so they can better understand the material and think critically.
- Connect will create a personalized study path customized to individual student needs through SmartBook®.
- SmartBook helps students study more efficiently by delivering an interactive reading experience through adaptive highlighting and review.

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## Quality Content and Learning Resources

- Connect content is authored by the world's best subject matter experts, and is available to your class through a simple and intuitive interface.
- The Connect eBook makes it easy for students to access their reading material on smartphones and tablets. They can study on the go and don't need internet access to use the eBook as a reference, with full functionality.
- Multimedia content such as videos, simulations, and games drive student engagement and critical thinking skills.



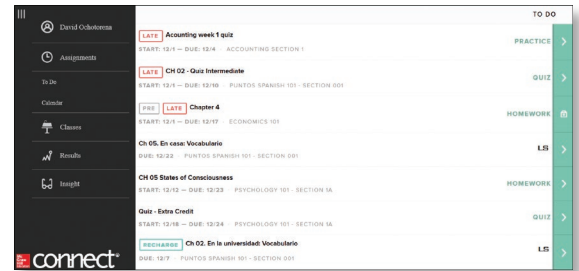
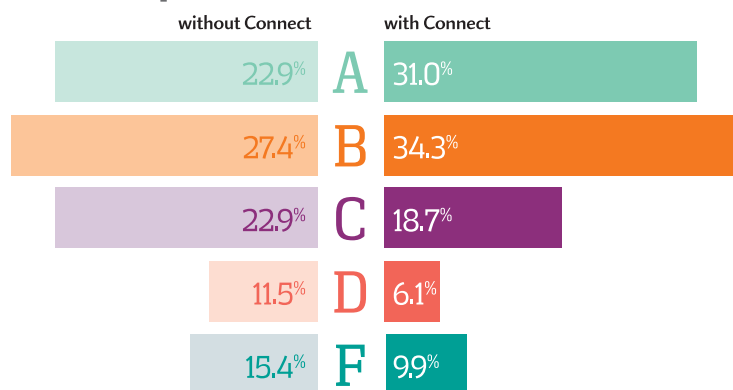
# Robust Analytics and Reporting

- Connect Insight® generates easy-to-read reports on individual students, the class as a whole, and on specific assignments.
- The Connect Insight dashboard delivers data on performance, study behavior, and effort. Instructors can quickly identify students who struggle and focus on material that the class has yet to master.
- Connect automatically grades assignments and quizzes, providing easy-to-read reports on individual and class performance.



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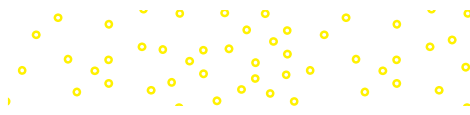
## Impact on Final Course Grade Distribution



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**As** and **Bs** when they  
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- Connect integrates with your LMS to provide single sign-on and automatic syncing of grades. Integration with Blackboard®, D2L®, and Canvas also provides automatic syncing of the course calendar and assignment-level linking.
- Connect offers comprehensive service, support, and training throughout every phase of your implementation.
- If you're looking for some guidance on how to use Connect, or want to learn tips and tricks from super users, you can find tutorials as you work. Our Digital Faculty Consultants and Student Ambassadors offer insight into how to achieve the results you want with Connect.



# What's NEW about the Eighth Edition

## New Coauthor: Steven D. Smith

**Steven D. Smith** is an associate professor of accountancy and the Deloitte Fellow in the Marriott School of Business at Brigham Young University (BYU). 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 *Accounting Horizons*. We are so pleased to have Steve join us, and you will see his significant contributions in the 8e. Welcome aboard, Steve!

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

From the first edition, the book has had globalization and global issues as an important feature. Globalization appears frequently in the text and in the exercises and problems. In the eighth edition, we added a new section in Chapter 1 under the heading The Global Business Environment to explain 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 in many of the chapters in the eighth edition.

## Tax Cuts and Jobs Act of 2017

In December 2017, the U.S. Congress passed legislation that dramatically changed federal taxation for businesses and individuals. The key provisions of the act that impact the management accountant include tax changes explained in Chapters 12, 19, and 20.

## 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 economic nationalism (Brexit), changes in sustainability reporting practices, big data analytics, the volatility of foreign exchange rates, and changes in management compensation practices, among others. Because of the strategic focus of the book, we put emphasis on getting current, real-world examples in the text and in the problem material. This is then updated each edition.
- End-of-chapter exercises and problems have been improved, with a strong focus on providing clarity, a clear linkage to chapter learning objectives, and an appropriate level of challenge.



# 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 multi-tab design for easier navigation for select exercises. Significant amounts of new auto-graded Connect content have been added with the eighth edition, including the problem set in both static and algorithmic form, select Cases, and Applying Excel questions, along with a new algorithmic test bank.

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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, 8e*, 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, 8e*, 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, 8e*, 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

- All Real-World Focus items updated, especially those regarding globalization and ethics; updated the Cost Management in Action question; updated surveys on strategy and ethics; updated content on real-world information used throughout the chapter, including the exercises and problems
- Added a new heading under The Global Business Environment to explain the new economic nationalism trends that oppose globalization, including the United Kingdom vote in 2016 to separate from the EU (referred to as “Brexit”)
- Four new exercises and problems, including two on Brexit; updates to several other exercises and problems that are based on current, real-world information

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

- Added a consideration of Brexit to many of the Real-World Focus items and to the discussion of SWOT analysis
- All Real-World Focus and Cost Management in Action items revised and updated, particularly the item on currency fluctuation; real-world information throughout the chapter revised and updated including the latest about the Paris Climate Agreement
- Expansion and update of the chapter opener to include recent acquisitions by Amazon and Walmart
- The Cost Management in Action question updated for recent events regarding Apple and Samsung
- Five new problems and several revised exercises and problems

### Chapter 3: Basic Cost Management Concepts

- Updated chapter opener to reflect more recent events at P&G
- Added the Five Steps of Strategic Decision Making to the discussion of cost drivers
- New Real-World Focus titled “Changing Views on Globalization and Impact on Structural Cost Drivers,” which focuses on changes in global supply chains

### Chapter 4: Job Costing

- New Learning Objective added to explain how to apply job costing in service industries
- Updated chapter opener related to the use of job costing by construction companies
- New Cost Management in Action box titled “Is Job Costing a Match for Caterpillar’s Manufacturing Process?” which addresses job costing at Caterpillar, a manufacturer of construction and mining equipment
- Two new Real-World Focus items; one titled “3-D Printing and Overhead Allocations,” and the other, titled “Tariffs Can Affect Specialty Manufacturers,” which deals with import tariffs

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

- Updated chapter opener to reflect the use of activity-based costing for a company with an expanding product line
- Enhanced discussion of idle capacity costs
- A new Real World Focus item titled “Excess Capacity at Caterpillar,” which focuses on idle capacity
- A new Cost Management in Action box titled “Customer Profitability in an E-Commerce World”

### Chapter 6: Process Costing

- Updated chapter opener to reflect recent events at Coca-Cola
- Updated sustainability related comments in the Cost Management in Action item to reflect more current events
- New Real-World Focus item titled “Putting Pepsi in the Can and Potato Chips in the Bag,” which contains links to videos for filling soda cans and for making potato chips

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

- Updated chapter opener
- One new Real-World Focus item titled “Direct Streaming: Content Is Not the Only Cost”
- Updated comments for the Cost Management in Action box relating to cost allocation in health care

## Part Two: Planning and Decision Making

### Chapter 8: Cost Estimation

- Updated chapter opener, including a quote from Steve Jobs related to using past information for planning
- Two updated Real-World Focus items. One titled “Applications of Regression Analysis: Using Business Analytics” and the other titled “Applications of Learning Curves”
- Updated content and comments for the Cost Management in Action item titled “Using Regression to Estimate Construction Costs” to now include a global context and focus on sustainability

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

- Updated chapter opener to include iHeartMedia

- One new Real-World Focus item titled “Different Ways to Reach Breakeven”
- Two updated Real-World Focus items. One titled “Cost Planning: Own Your Own Wheels?” and the second titled “Analysis of Social Security Retirement Benefits”
- Addition of a Cost Management in Action item titled “Managing Profitability under Different Cost Structures”

## Chapter 10: Strategy and the Master Budget

- Updated chapter opener to reflect more recent information for J&J
- A quote from Dwight Eisenhower added
- A new Real-World Focus item titled “Justifying Expenditures through Zero-Base Budgeting”
- New Cost Management in Action box titled “Changing Traditional Budgeting Practices” which focuses on behavioral issues in budgeting

## Chapter 11: Decision Making with a Strategic Emphasis

- New chapter opener, based on Apple Inc.
- Three new Real-World Focus items: one titled “Business Analytics, Decision Making, and the Role of the Management Accountant” (based on a July 2016 CGMA Report), one titled “The ‘Sourcing Decision’ for Labor Services: Make vs. Buy?,” and one titled “How to Avoid Decision-Making/Judgment Biases” (based on a February 2015 *Journal of Accountancy* article)
- New Cost Management in Action item: “Defining a Strategic Role for Sustainability Accounting and Reporting”
- New discussion of Brexit, in conjunction with the make-vs.-buy decision

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

- Updated chapter opener (introductory quote by Peter S. Drucker and capital budgeting examples from a cross-section of industries)

- New discussion of types of capital budgeting projects (independent, dependent, and mutually exclusive) and “Recent Development: Foreign Capital Investment in the U.S. and Economic Protectionism” (as an outgrowth of Brexit)
- Newly added references regarding the reinvestment rate assumption associated with the IRR method and the use of MIRR (modified internal rate of return)
- Newly added Cost Management in Action item: “Real-Options Analysis in the Motion Picture Industry”
- Two new end-of-chapter problems, one dealing with the issue of multiple internal rates of return, the other dealing with mutually exclusive projects and the use of net present value (NPV) vs. IRR for project-evaluation purposes

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

- Updated chapter opener to reflect more recent events at Toyota
- Two new Real-World Focus items. One titled “Downside to Disruption” and the other titled “Cost Savings through Recycling”
- Revised Cost Management in Action box titled “Global Supply Chains” to reflect the growing importance of understanding global supply chains

## Part Three: Operational-Level Control

### Chapter 14: Operational Performance Measurement: Sales, Direct Cost Variances, and the Role of Nonfinancial Performance Measures

- New chapter opener, based on United Parcel Service (UPS)
- Updated Real-World Focus box: “Consumers: Demystifying Changes in Natural Gas Bills”
- New Cost Management in Action item: “Driving Innovation and Improvements in Health Care

Delivery—the Role of Management Accounting Systems”

- Two new Real-World Focus boxes: “Operating Process Improvements and JIT” (using examples from Toyota, Dell, Harley-Davidson, and McDonald’s), and “Sourcing Decisions, Brexit, and JIT”
- New end-of-chapter problem titled “Standard Cost Systems, Lean Companies, and Value-Stream Reporting”

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

- New chapter opener, based on Southwest Airlines and the need for capacity management in the airlines industry
- One new exercise, dealing with the variance investigation decision
- Two new end-of-chapter problems: one dealing with standard cost variance analysis and interpretations, the other a summary problem dealing with a four-variance breakdown of the total overhead variance and the recording, and end-of-period disposition, of standard cost variances
- Material (text and related end-of-chapter assignments) related to the Variance Investigation under Uncertainty section has been removed from the Appendix and made available as an online supplement (Chapter 15)

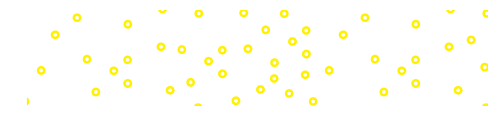
### Chapter 16: Operational Performance Measurement: Further Analysis of Productivity and Sales

- Updated chapter opener that includes a quote from Paul Gauguin
- Updated Real-World Focus item titled “How Companies Improve Productivity and Reduce Costs”
- Updated content and related comments for Cost Management in Action item titled “Productivity: Not So Easy to Measure”

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

- New chapter opener, based on the health care sector





- Three new Real-World Focus items: “Quality Ranking Systems for U.S. Colleges” (weighting of financial factors in the college-selection process), “Using Cost of Quality (COQ) to Support Cost-Containment Efforts in a Hospital Setting,” and “The Quality Costs of Privacy”; updated RWF boxes for “How Costly Is Poor Quality?” and “Ratings of U.S. Airlines Based on the Airline Quality Rating (AQR) System”
- New Cost Management in Action item: “*Wall Street Journal/Times* Higher Education (THE) Quality Rankings of U.S. Colleges and Universities”
- Expanded discussion of the Baldrige Quality Award and a new discussion of the Shingo Prize, along with a list of recent winners of this award
- Expanded discussion of sources of “waste” (within the context of lean, kaizen, and continuous-improvement initiatives)
- Two new end-of-chapter problems, one titled “Decision Analysis and Cost-of-Quality (COQ) Trade-Offs,” the other dealing with the preparation and interpretation of histograms, run charts, and statistical process control charts

## Part Four: Management-Level Control

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

- A significant revision of the text material on employment contracts
- Three new Real-World Focus items using recent events and trends to address decentralization, responsibility centers, and outsourcing
- A new Cost Management in Action item addressing subjective performance evaluation as a strategic performance measurement tool
- All brief exercises converted to multiple-choice format
- Four exercises and four problems augmented by the addition of multiple-choice requirements

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

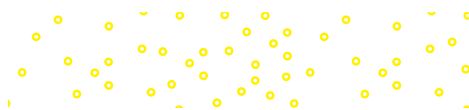
- A new chapter introduction, focused on the return on investment of the

2017 NBA Champion Golden State Warriors

- Two new Real-World Focus items (focusing on short- versus long-term strategy and multinational transfer pricing) with updates to three others
- A new Cost Management in Action item focused on the management implications of shifting responsibility center designation
- Auto-gradable requirements added to five problems

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

- A new chapter introduction focused on executive compensation and bonus incentives at United Parcel Service (UPS)
- Three new Real-World Focus items (focusing on SEC rules on pay disclosure and linking pay to performance) with updates to three others
- Auto-gradable and multiple-choice requirements added to seven exercises and seven problems
- Combined Learning Objectives 1 and 2 (LO 5-1 and 5-2) from the seventh edition into one learning objective





# Acknowledgments

## Our Sincerest Thanks . . .

In writing this book, we were fortunate to have received extensive feedback from a number of accounting educators. We want to thank our colleagues for their careful and complete review of our work. The comments that we received were invaluable in helping us to shape the manuscript. We believe that this collaborative development process helped us to create a text that will truly meet the needs of today's students and instructors. We are sincerely grateful to the following individuals for their participation in the process:

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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.

Talk about a success story! Walmart has grown from its first discount store in 1962 to become the world's largest company, with almost \$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



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competitor, Target, with a different strategy and a different motto (“Expect More, Pay Less®”) 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.

## 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*.

**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.

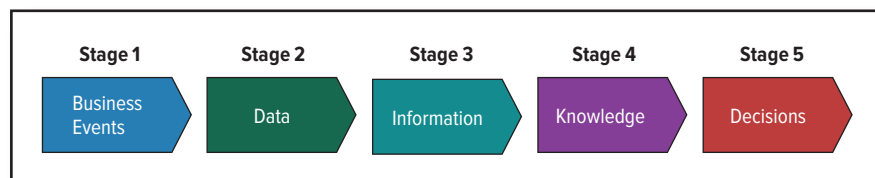
### cost management

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



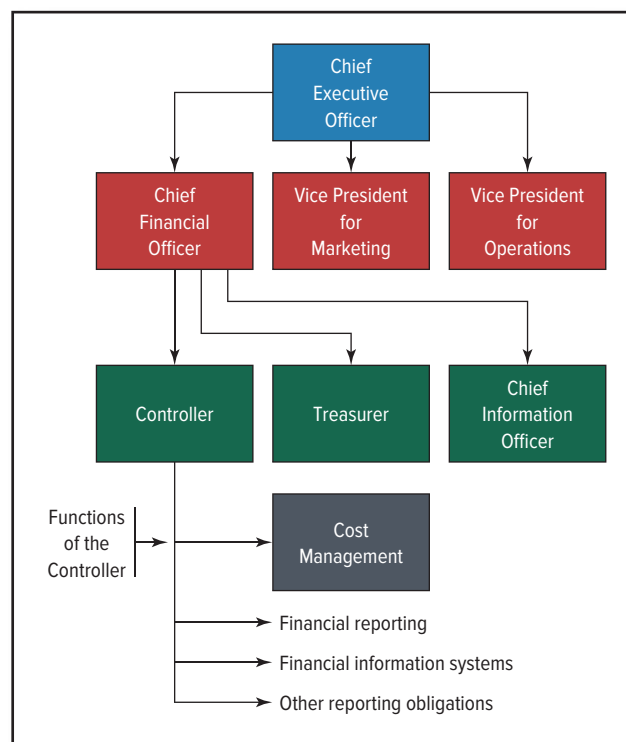


At lower stages of the value chain, management accountants gather and summarize data (stage 2) from business events (stage 1) and then transform the data to cost management information (stage 3) through analysis and use of the management accountants' expertise. At stage 4, cost management information 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. 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.

**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 controller-ship 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. Also, a 2012 survey of the CFOs of *Fortune* 100 firms by Russell Reynolds Associates, an executive recruiting firm, reported that 49% of the CFOs previously held roles in corporate strategy, up from 22% in 2009.

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:** 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, September 2013 (<http://www.accaglobal.com/content/dam/acca/global/PDF-technical/finance-transformation/cfo-career-paths.pdf>); "CFO Route to the Top Becomes More Strategic," *The Wall Street Journal*, March 6, 2012; Robert A. Howell, "CFOs: Not Just for Finance Anymore," *The Wall Street Journal*, February 27, 2012, p. R7; Dana Mattioli, "Finance Chiefs Expand Roles," *The Wall Street Journal*, January 31, 2011, p. B7; "Competency Map of the CMA Profession," The Society of Management Accountants of Canada (now the Chartered Professional Accountants of Canada) (<https://www.cpacanada.ca/>); "Future Pathways to Finance Leadership," Institute of Management Accountants and the Association of Chartered Certified Accountants, September 2013 ([www.accaglobal.com/content/dam/acca/global/PDF-technical/finance-transformation/cfo-career-paths.pdf](http://www.accaglobal.com/content/dam/acca/global/PDF-technical/finance-transformation/cfo-career-paths.pdf)).

### strategic management

The development and implementation of a sustainable competitive position.

### planning and decision making

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

## 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 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,

### 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.

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>1</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.

#### 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.

## 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—is 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.

## 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*;

<sup>1</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.

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) increased global competition; (2) lean manufacturing; (3) advances in information technologies, the internet, and enterprise resource management; (4) greater focus on the customer; (5) new forms of management organization; and (6) changes in the social, political, and cultural environment of business. The current global economic challenges (high public debt, high unemployment rates, and slow economic growth, 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. 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. The North American Free Trade Agreement (NAFTA), 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: Brexit and Economic Nationalism

The expansion of globalization has faced a strong counterforce 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”). Also, there was a strong worldwide growth of interest in protecting domestic workers and industries from foreign competition. Clear evidence of this was demonstrated in the U.S. and in various EU countries in the fall of 2016. Many have called this trend **economic nationalism**, which is the ideology that promotes domestic economic growth and opposes globalization, free trade, and immigration.

Apart from Brexit and the emergence of economic nationalism in countries around the world, it is clear that the increasing competitiveness 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.

#### economic nationalism

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




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The winning companies in the global competition will be those companies that can put together the best of research, engineering, design, manufacturing, distribution—wherever they can get it, anywhere in the world—and the best of each of these will not come from one country or from one continent.

*Jack Welch, former CEO of General Electric*

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### Lean Manufacturing

To remain competitive in the face of the increased global competition, firms around the world are adopting new manufacturing technologies. These include just-in-time inventory methods to reduce the cost and waste of maintaining large levels of materials and unfinished product. Also, many firms are adopting the lean methods applied in Japanese manufacturing that have produced significant cost and quality improvements through the use of quality teams and statistical quality control. Other manufacturing changes include flexible manufacturing

**REAL-WORLD FOCUS****Going Global: The Growing Importance of Worldwide Markets and the Impact of Economic Nationalism**

The following table indicates the percentage of sales coming from outside the domestic market for the listed companies. **Sources:** Company Annual Reports.

	1993	2007	2013	2016
General Electric	17%	50%	54%	59%
Walmart	0.0	22	33	25
McDonald's	47	65	69	62

techniques developed to reduce setup times and allow fast turnaround of customer orders. A key competitive edge in what is called *speed-to-market* is the ability to deliver the product or service faster than the competition.

### Use of Information Technology, the Internet, and Enterprise Resource Management

Perhaps the most fundamental of all business changes has been the increasing use of information technology, the internet, and performance management systems. This *new economy* is reflected in the rapid growth of internet-based firms (companies such as Amazon, eBay, and Google); the increased use of the internet for communications, sales, and business data processing; and the use of enterprise management systems. These technologies have fostered the growing strategic focus in cost management by reducing the time required for processing transactions and by expanding the individual manager's access to information within the firm, the industry, and the business environment around the world.

### Focus on the Customer

A key change in the business environment is increased *consumer expectation* for product functionality and quality. The result has been a shorter product life cycle, as firms seek to add new features and new products as quickly as possible, thereby increasing the overall intensity of competition.

In past years, a business typically succeeded by focusing on only a relatively small number of products with limited features and by organizing production into long, low-cost, and high-volume production runs aided by assembly-line automation. The new business process focuses instead on customer satisfaction. Producing value for the customer changes the orientation of managers from low-cost production of large quantities to *quality, service, timeliness of delivery*, and the *ability to respond to the customer's desire for specific features*. Today, many of the critical success factors are customer oriented. Cost management practices are also changing; cost management reports now include specific measures of customer preferences and customer satisfaction.

### Management Organization

Management organization is changing in response to the changes in technology, marketing, and manufacturing processes. Because of the focus on customer satisfaction and value, the emphasis has shifted from financial and profit-based measures of performance to customer-related, nonfinancial performance measures such as quality, time to delivery, and service. Similarly, the hierarchical command-and-control type of organization is being replaced by a more flexible organizational form that encourages teamwork and coordination among business functions. In response to these changes, cost management practices are also changing to include reports that are useful to cross-functional teams of managers. The reports reflect the multifunctional roles of these teams and include a variety of operating and financial