CHARLES E. DAVIS • ELIZABETH DAVIS

MANAGERIAL ACCOUNTING

THIRD EDITION

WILEY

MANAGERIAL ACCOUNTING

3rd Edition

CHARLES E. DAVIS | ELIZABETH DAVIS

WILEY

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EPUB: 9781119234173

The inside back cover will contain printing identification and country of origin if omitted from this page. In addition, if the ISBN on the back cover differs from the ISBN on this page, the one on the back cover is correct.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

Brief Contents

Author Biographies

Charles E. Davis, Professor of Accounting at Baylor University, joined the accounting faculty at Baylor in 1991 after receiving his Ph.D. in accounting from the University of North Carolina at Chapel Hill. He also holds an MBA from University of Richmond and a BBA in accounting from The College of William and Mary, and is a CMA, CGMA, and CPA (Virginia).

Prior to pursing his Ph.D., Professor Davis worked for Reynolds Metals Company, Coopers & Lybrand, and Investors Savings Bank, all in Richmond, Virginia. It was while working in various cost accounting positions at Reynolds Metals that Professor Davis developed his appreciation for managerial accounting.

Professor Davis's research has been published in a number of journals including *Accounting Horizons, Advances in Accounting, Advances in Accounting Behavioral Research, Advances in Accounting Education*, and *Issues in Accounting Education*. He has received The Institute of Management Accountants' Lybrand Gold Medal and three Certificates of Merit for his publications in *Management Accounting* and *Strategic Finance*. Professor Davis currently serves on the Editorial Board of *Strategic Finance* and is a former member of the Editorial Board of *Issues in Accounting Education*.

Elizabeth Davis, President at Furman University, began her academic career as a member of the accounting faculty at Baylor University in 1992 after receiving her Ph.D. in accounting from Duke University. She also holds a BBA in accounting from Baylor University and is a CPA (Louisiana, inactive).

Prior to pursuing her graduate studies, Dr. Davis worked as an auditor for Arthur Andersen & Co. in New Orleans, Louisiana. While in public practice, she specialized in the audits of financial institutions and real estate.

Dr. Davis's research has been published in a number of journals including *Organizational Behavior and Human Decision Processes, Advances in Accounting, Advances in Accounting Behavioral Research, Advances in Accounting Education, Issues in Accounting Education, Journal of Accounting Case Research*, and *Today's CPA*. She has received The Institute of Management Accountants' Lybrand Gold Medal and a Certificate of Merit for her publications in *Management Accounting and Strategic Finance*.

Preface

Today's business environment is a complex assortment of relationships, all of which are necessary for an organization's success in the marketplace. These relationships can involve external parties such as suppliers and customers, or internal parties such as employees. And all of these relationships rely on some form of managerial accounting information to support decision-making activities.

Non-accounting business majors frequently ask, "Why do I need to take accounting? I'm not going to do accounting; I'll hire an accountant to do that for me." What these students fail to understand is that a working knowledge of accounting is essential to success in business, even when the accounting "work" is left to the trained accountants. Decision makers at all levels in the organization must know what accounting information to ask for and must know how to interpret that information before reaching a conclusion about a course of action. For instance, how can a marketing manager decide on a price for a product without fully understanding the product's cost to manufacture? How can a plant manager determine how to reward employees' performance without understanding their ability to control costs and quality?

Those of us teaching introductory accounting courses may be partly to blame for this misconception. Often we place too much emphasis on the "accounting" and not enough emphasis on the "business." We are more concerned with students getting the "right" answer rather than understanding what to *do* with that right answer. Realizing that most students in an introductory managerial accounting course are not going to major in accounting, this book seeks to position managerial accounting in a broader context of business decision making.

This book does not attempt to be all things for all people. Instead, it is targeted to a typical university sophomore with limited business knowledge, both in terms of theoretical education and practical experience. While the nature of the book may be suitable for other audiences, we anticipate that the majority of students using this book have very little business foundation on which to build. Limited knowledge of business topics is assumed, though we anticipate that students have completed an introductory financial accounting course. Therefore, our overriding objective is to lay a firm foundation of basic managerial accounting on which new concepts in areas of finance, marketing, and management can be built.

The vision of this book is to provide an easy-to-use learning system for introductory managerial accounting students. Our expectation is that this learning system will:

1. facilitate students' learning of introductory managerial accounting concepts,
2. improve students' understanding of how to use these concepts as support for management decisions, and
3. improve students' retention of these concepts for use in subsequent business and accounting courses.

DISTINGUISHING FEATURES

BUSINESS DECISION-MAKING CONTEXT

Business Organizations, Supply Chain Players, Key Decisions

To really understand how managerial accounting information supports business decision-making activities, students need a **CONTEXT** in which to place those decisions. Davis and Davis *Managerial Accounting* creates this context by using C&C Sports, a fictitious manufacturer of sports apparel, and its supply chain partners to illustrate and explain concepts. The story of C&C begins in the business decision posed at the start of each chapter, carries throughout units in the chapter, and is applied in a new continuing case problem at the end of each chapter.

Business Decision and Context

Martin Keck, vice president for sales at Universal Sports Exchange, was talking with his sales team at the monthly sales meeting. "As you know, the company missed its sales target last year. We were expecting to sell 10% more jerseys than we did. And we all saw the effect that the lower sales level had on our bottom line. When we miss our sales targets, it affects what everyone else in the company can accomplish because they count on us to generate revenue."

Sarah Yardley, one of the company's top salespeople, had been listening intently as Martin discussed the concept of cost behavior. "I think I understand all this talk about cost behavior," she said, "but I'm still not sure how it plays into my decisions."

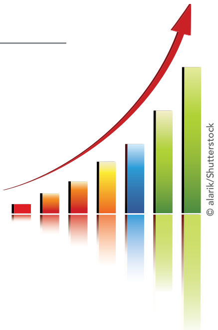
"Sarah," Martin replied, "we have to use our knowledge of cost behaviors to *predict* what effect our decisions will have on the bottom line. We know when it is advantageous to, say, initiate a new advertising campaign instead of reducing prices, but to persuade the president and the CFO, we need to have more convincing data, and that includes the financial impact of our decisions. In fact, I'll be meeting with the president and CFO next week to discuss the relative merits of a $50,000 advertising campaign and a 10% reduction in sales price. You can be sure that I'll know the expected financial impact of each alternative before I walk into the meeting."

"I'll be meeting with the president and CFO next week to discuss the relative merits of a ... a 10% ... sure ... of each ... meeting."

...agers of a start-up com- ... they generate a profit. ... want to know whether ... in the form of a price ... another company want ... itor's lower price or offer ... changes might affect a ... natives to implement.

...PLUS to learn more about ... business environment.

...PLUS to learn more about



SUPPLY CHAIN KEY PLAYERS

END CUSTOMER

UNIVERSAL SPORTS EXCHANGE

Vice President of Sales, Martin Keck

Top Salesperson, Sarah Yardley

C&C SPORTS

DURABLE ZIPPER COMPANY

BRADLEY TEXTILE MILLS

CENTEX YARNS

BUSINESS DECISION AND CONTEXT Wrap Up

Martin Keck now knows how to present the financial implications of the $50,000 advertising campaign and a 10% price reduction.

The advertising campaign represents a $50,000 increase in fixed expenses. Since nothing else is changing, Martin determined that Universal will need to sell at least 12,500 additional jerseys to cover the additional fixed expense ($50,000 ÷ $4 contribution margin). That's a 24% increase in sales volume just to earn the same net income that Universal earns without the

Business Organizations: Students better understand the decision-making process by understanding the context of decisions made by **managers across all departments and divisions in the organization.**

Supply Chain Key Players: Decisions often are made with other **manufacturing** and **retail companies**. Illustrating decisions in this context allows students to better understand the **supply chain** concept and the reality that companies must work with their supply chain partners to achieve maximum results.

Key Decision: Each chapter is framed with a decision that key players must address. The decision is highlighted in quotes in the opening of the chapter. Discussions, examples, and illustrations in the chapter address the topics associated with the business decision. A **Wrap Up** at the end of the chapter applies topics addressed in the chapter to the key decision.

BUSINESS DECISION-MAKING CONTEXT

Temporal Order

The order of the chapters in the book is designed around the context of a story that places business decisions in temporal order rather than the more traditional grouping of "Planning/Controlling," "Decision Making," and "Evaluating" sections. With this ordering of topics, students learn about managerial accounting and how to use managerial accounting to support decision making. Key players in the story include:

Centex Yarns, Yarn Manufacturer

© itaesem/iStockphoto

Bradley Textile Mills, Fabric Manufacturer

© petekarici/iStockphoto

Durable Zipper Company, Zipper Manufacturer

© aopsan/iStockphoto

C&C Sports, Team Uniform Manufacturer

© jsnyderdesign/iStockphoto

Universal Sports Exchange, Retail

© Tischenko Irina/Shutterstock

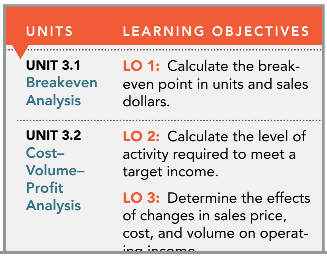
The ordering of the chapters is based on the following story line:

- C&C Sports is introduced. **(Topic Focus 1)**
- Universal Sports Exchange, a retailer in C&C Sports' supply chain, explores the need for cost behavior information to estimate and predict financial results. **(Chapters 2 and 3)**
- C&C Sports develops product costs for its three products using job order costing. **(Chapter 4)**
- Bradley Textile Mills develops product costs for its fabric using process costing. **(Topic Focus 2)**
- Bradley Textile Mills managers are engaged in a discussion of how increasing production will decrease the fixed cost per unit of yard of material. **(Topic Focus 3)**
- C&C Sports plans for the coming year by developing standards and a master budget once desired production volume is determined. **(Chapter 5)**
- C&C Sports recognizes the need to evaluate its performance using a flexible budget and variance analysis. It finds that results for direct materials and direct labor are in line with standards, but overhead costs differ from expectations. This finding leads to the need to better understand the company's cost drivers. **(Chapter 6)**
- Durable Zipper Company's accountant is overwhelmed by the volume of entries needed to record product costs. She looks to a standard cost system to help reduce the recording volume. **(Topic Focus 4)**
- C&C Sports explores the use of activity-based costing (ABC) in response to its earlier performance evaluation. Management discusses overhead pools and how those resources are consumed by the organization. The resulting product costs yield a picture of product profitability that is different from management's assumptions using traditional job order costing. Management also explores other nonfinancial performance metrics. **(Chapter 7)**
- Bradley Textile Mills' managers evaluate the profitability of the company's customers and explore the need to price certain extra services based on the ABC results to increase profitability. **(Topic Focus 5)**
- C&C Sports' management team meets to discuss the vice presidents' various areas of responsibility. Each vice president faces a different decision whose costs are not as obvious as it first seems. **(Chapter 8)**
- C&C Sports seeks to expand its product line to increase profitability. The company's managers use capital budgeting techniques to assess the viability of investing in equipment to produce baseball. **(Chapter 9)**
- Centex Yarns' Nylon Fibers division has shown a loss for the past three years. The division's vice president must determine how much the division is contributing to the company's financial health. **(Chapter 10)**
- C&C Sports' management recognizes that performance evaluation needs to be expanded to include the relation between financial and nonfinancial measures. A balanced scorecard is developed for the company. **(Chapter 11)**

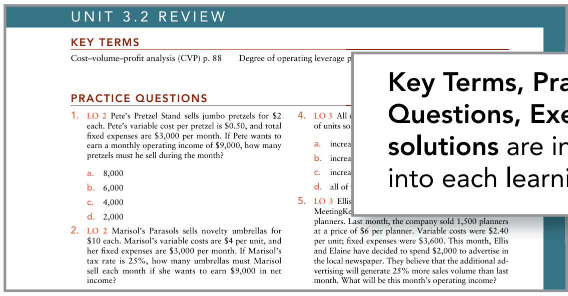
DISTINGUISHING FEATURES

LEARNING DESIGN: CONCEPTS AND PRACTICE

Students stay **ENGAGED** as they read manageable units of content in each chapter that are written in a conversational style. Students **INTERACT** more with managerial accounting topics as they work through practice questions and exercises at the end of each unit. Students gain **CONFIDENCE** when they review practice exercise solutions before they move on to another topic. Frequent, **ACTIVE** demonstrations, exercises, and explorations replace the traditional passive reading of lengthy chapters.

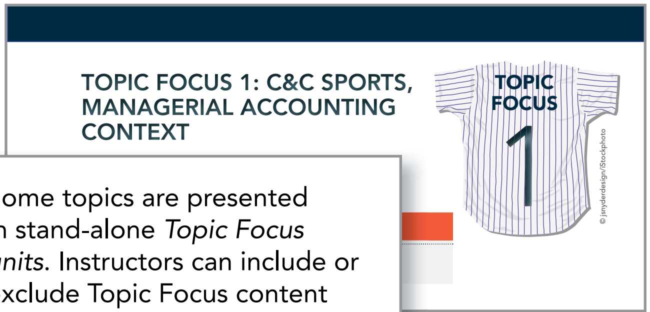


With active learning units, students analyze topics before moving to a new topic.



Key Terms, Practice Questions, Exercises, and solutions are integrated into each learning unit.

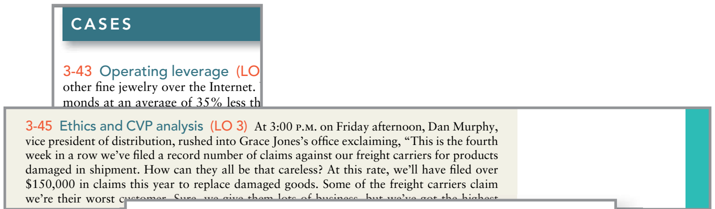
With Lightboard technology, students can watch the author solve problems in an easy-to-follow, step-by-step format.



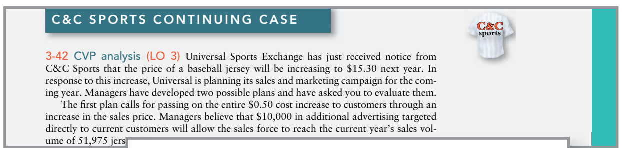
Some topics are presented in stand-alone *Topic Focus units*. Instructors can include or exclude Topic Focus content without affecting the textbook's flow.

ASSESSMENT

An extensive amount of comprehensive homework exercises, problems, and cases for all units are also provided at the end of each chapter. All are assignable in WileyPLUS.



Exercises, Problems, CMA-adapted material, and many Cases address service, retail, and manufacturing scenarios. Ethics cases are included in each chapter.



A C&C Sports Continuing Case addresses multiple chapter learning objectives and continues throughout the textbook.

REAL-WORLD FOCUS

Business decision-making context is also illustrated through the examples of real-world companies discussed in Reality Check boxes, *WileyPLUS* videos, and homework problems.

REALITY CHECK—*Mixing it up on a high flyer*

© 2011 Boeing

One analyst estimates that the average profit on a 787-10 is as much as $15 billion greater than the profit on a 787-9.

In February 2016, Boeing delivered its 100th 787 Dreamliner produced at its facility in North Charleston, South Carolina. While it took the company three years to reach this milestone it expects to deliver its 200th Dreamliner in about half that time.

But there's not just one Dreamliner product. There are actually three versions of th plane–small, medium, and large. The largest version, known as the 787-10 or "Dash 10, was announced at the 2013 Paris Air Show, and Boeing left the show with orders for a tota of 102 airplanes from five customers. With a backlog of 164 jets at the end of 2015, the firs 787-10 isn't expected to be delivered until 2018.

The 787-8 accounted for almost 80% of all Dreamliners sold through the end of 2015 but looking at the current backlog of Dreamliner orders shows a much different sales mix The backlog mix is about 20% 787-8s, 60% 787-9s and 20% 787-10s. Since the 787-10 is th most profitable version of the three models, this changing sales mix should improve th company's profitability. In fact, one analyst estimates that the average profit on a 787-10 i as much as $15 billion greater than the profit on a 787-9. So don't be surprised if you se the company try to change the sales mix to include an even greater percentage of 787-1 Dreamliners in the future.

Sources: Dominic Gates, "Boeing Finishes 787-10 Design Details, *The Seattle Times*, December 2, 2015, http:/ www.seattletimes.com/business/boeing-aerospace/boeing-finishes-787-10-design-details/ (accessed Februar 26, 2016); Dominic Gates, "Boeing's S. Carolina Site Delivers 100th Dreamliner," *The Seattle Times*, http://www seattletimes.com/business/boeing-aerospace/boeings-s-carolina-site-delivers-100th-dreamliner/ (accessed February 2 ... amliner Profitability," The Motley Foo ... itical-for-dreamliner-prof.aspx (accesse ... iner, United States of America," http:/ ... essed February 26, 2016).

Reality Check boxes show how decisions have direct business consequences.

Managerial Accounting videos engage students with an overview of a chapter topic.

CRITICAL THINKING

Students are asked to think critically in all learning units and homework problems.

THINK ABOUT IT 3.1

Fill in the rest of the table, assuming that sales volume remains constant.

WHAT IF . . .	EFFECT ON				
	Sales Revenue	Total Expenses	Contribution Margin per Unit	Breakeven Point	Operating Profit
fixed expenses decrease	no effect				
variable cost per unit increases					
sales price increases					

Think About It questions require students to think critically about a particular topic in the narrative of a discussion. Students can evaluate their understanding with a solution that appears later in the discussion.

WATCH OUT!

When volume changes, total sales revenue, total variable expenses, and t ... bution margin a ... Students typica ... total sales rever ... get to change t ... expenses. The s ... start with contri ... per unit × sales ... sure to capture ... in total sales an ... expenses.

Concepts that students frequently find confusing or for which errors often occur are highlighted in *Watch Out!* boxes. Students' critical thinking is developed by helping them avoid common mistakes and eliminate bad habits.

38. Assume a sales price per unit of $25, variable cost per unit $15, and total fixed costs of $18,000. Wha the breakeven point in units?
   a. 720 units
   b. 1,200 units
   c. 1,800 units
   d. None of these answer choices is correct.

$18,000 ÷ ($25 – $15) = 1,800

Ans: c, LO: 1, Bloom: AP, Unit 3-1, Difficulty: Easy, Min: 3, AACSB: Analytic, AICPA FN: Decision Modeling, AICPA PC: Problem Solving and Decision Making, IMA: Decision Analysis

Test Bank and Homework questions address many learning outcomes that develop critical thinking skills.

DATA ANALYSIS PROBLEMS

ANALYTICS PROBLEM

3-46 Multiproduct CVP analysis using data analytics and Excel (LO 5) Greer Golf Supplies is an online store that sells two types of golf balls: practice balls and tournament balls. The golf balls are sold in plastic sleeves containing three golf balls. Practice balls sell for $4 per sleeve; tournament balls sell for $12 per sleeve. Owner Carl Rider purchases the golf balls directly from the manufacturer and pays $1 per sleeve for the practice balls and $4 per sleeve for the tournament balls. Fixed costs total $14,000 per month and include Carl's salary, website hosting, and accounting and legal fees. When preparing the sales forecast for the year, Carl assumed he would sell twice as many sleeves of practice balls as tournament balls.

Required

a. Calculate the annual breakeven point for Greer Golf Supplies.
b. Carl has gathered the sales data for the past year. Use Excel's C
prepare a 100% stacked bar chart of the monthly sales mix bas
data. You will first need to calculate the monthly sales total for
the SUMIF function.
c. Calculate the actual sales mix for the year. Round to one decim

New data analytics problems are designed to enhance students' Excel skills in manipulating and interpreting data.

WileyPLUS with ORION

A personalized, adaptive learning experience.

WileyPLUS with ORION delivers easy-to-use analytics that help educators and students see strengths and weaknesses to give learners the best chance of succeeding in the course.

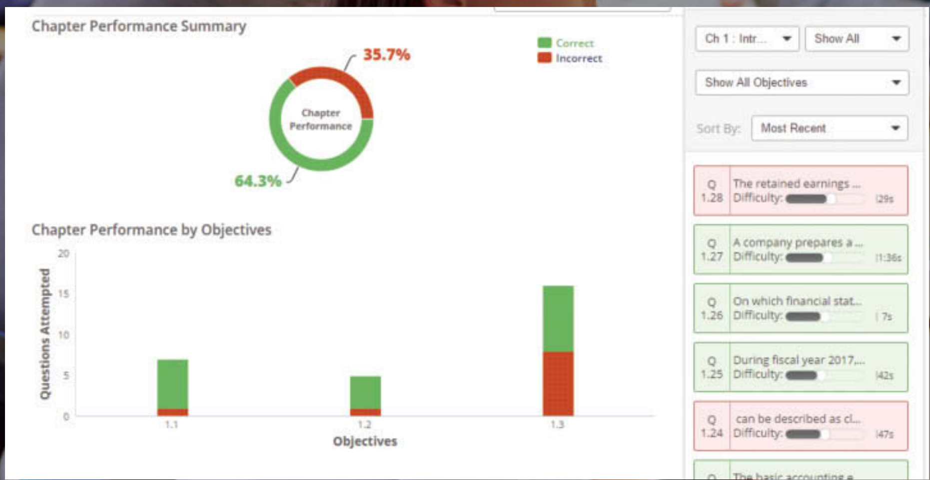


Photo credit: Monkey Business Images/Shutterstock

Identify which students are struggling early in the semester.

Educators assess the real-time engagement and performance of each student to inform teaching decisions. Students always know what they need to work on.

Help students organize their learning and get the practice they need.

With ORION's adaptive practice, students quickly understand what they know and don't know. They can then decide to study or practice based on their proficiency.

Measure outcomes to promote continuous improvement.

With visual reports, it's easy for both students and educators to gauge problem areas and act on what's most important.

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NEW to the Third Edition

Informed by feedback from instructors and students, the Third Edition expands our emphasis on business decision making, practice, context, and a commitment to accuracy.

LIGHTBOARD TECHNOLOGY VIDEOS

NEW Lightboard Technology Videos provide students with over 70 new videos that allow them to watch the author solve problems.

Improved Test Bank includes new and refreshed multiple-choice questions and problems.

NEW Data Analytics Problems included in Chapters 2-11 use "big" (relatively speaking) data sets to enhance students' Excel skills in manipulating and interpreting data to make decisions.

Revised and Updated Reality Check Problems help students apply concepts through real-world business decisions.

Supplements

Instructor

In addition to the support instructors receive from *WileyPLUS* and the **Wiley Faculty Network**, we offer the following useful supplements.

Textbook website

On this website, www.wiley.com/college/davis, instructors will find electronic versions of the solutions manual, instructor's manual, test bank, computerized test bank, and other resources.

Solutions Manual

The solutions manual contains complete solutions, prepared by the authors, for each question, exercise, problem, and case in the textbook.

Instructor's Manual

The instructor's manual, prepared by the authors, contains unit and chapter summaries organized by learning objective, additional readings and critical thinking exercises, recommended instructional cases, and detailed notes to accompany the PowerPoint slides in each chapter.

Test Bank and Computerized Test Bank

The test bank allows instructors to tailor examinations according to study objectives and learning outcomes, including AACSB and AICPA professional standards. New multiple-choice questions and problems were added to the third edition.

PowerPoint Slides

This supplement includes PowerPoint slides prepared by the authors for each learning unit.

Student

Textbook Website

On this website students will find Excel Templates, PowerPoint slides, quizzes, and other resources.

WileyPLUS

Additional student online supplements are available in *WileyPLUS*. Here, students will find the following useful study and practice tools and more:

Study Guide

Contains a chapter outline with problems, multiple-choice questions, solutions, and more.

Excel Working Papers

Templates that help students correctly format their textbook accounting answers.

Managerial Accounting Videos Series

A series of videos that provide a real-world context and overview for chapter topics.

Lightboard Solution Videos

Author Charles Davis walks you through over 70 similar end-of-chapter homework exercises by recording himself behind an LED powered glass chalkboard. His writing glows in front of you.

Narrated PowerPoints Slides

PowerPoint slides prepared by the authors for each learning unit guide students through topics with voice-narrated and animated illustrations and examples.

The Development Story

Reviewed and Tested by over 200 Professors and 350 Students!

Managerial Accounting, Third Edition, is the result of incredibly extensive instructor and student involvement, every step of the way, from creation to development and execution.

Class Tests Dating back to the initial class tests of the first edition manuscript in 2007, over 40 instructors and 350 students have class tested chapters from this book. Their feedback was overwhelmingly supportive and enthusiastic, with over 93% of all instructors stating that the Davis and Davis student-focused learning design met their course goals. They offered valuable suggestions that can only come from use in the classroom, and their comments factored into each decision that was made to produce the final textbook and accompanying *WileyPLUS* course.

Developmental Reviews A team of development editors, including line editors and designers, worked closely with the authors to hone their distinctive learning design, test the explanation of concepts in the classroom, and confirm that the pedagogy is consistent and adds value to the learning process.

The Preliminary Edition To market test the first edition before its full release, we created a preliminary edition for evaluation, testing, and adoption.

Instructor Focus Groups Over 50 professors participated in live and virtual focus groups throughout the development process to provide invaluable feedback on the Davis and Davis solution and how it could help them better achieve their course goals.

Student Focus Groups Students participated in a variety of focus groups to provide feedback on the text design and share insights into their preferred learning style.

Faculty Reviewers More than 200 professors across the United States reviewed the manuscript at various stages to ensure the content was clear and precise and facilitated student engagement and understanding.

Reviewers, Focus Group Participants, and Class Testers:

We thank the following reviewers who provided valuable feedback:

Nishat Abbasi, *Metropolitan State College—Denver*
Wagdy Abdallah, *Seton Hall University*
Mohamed Abo-Hebeish, *California State University—Dominguez Hills*
Jim Aitken, *Central Michigan University*
Natalie Allen, *Texas A&M University*
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Acknowledgments

A project of this magnitude cannot be completed solely by the authors listed on the book's cover. We want to thank our colleagues at Baylor University who have supported our early work on this project, particularly Scott Bryant, who assisted in classroom testing the book's early drafts for several semesters, and Gia Chevis, who read the entire manuscript and provided helpful comments. Our students also deserve thanks for persevering through early drafts and numerous typographical errors. Dr. Lorynn Divita, associate professor of fashion merchandising at Baylor University, provided us with a crash course on the textile industry, helping us to understand C&C Sports' supply chain. A special thanks is due to Bill Sturgeon, Armando DeLeon, and all the other employees of Southland Athletic Manufacturing Company in Terrell, Texas, for showing us their operations.

We were fortunate to have an extraordinary team from John Wiley & Sons to guide us through the process of bringing this textbook and *WileyPLUS* course to publication. We are grateful for the assistance and guidance provided by Editorial Director, Mike McDonald, Senior Marketing Manager Carolyn Wells, Editorial Manager Karen Staudinger, Development Editor Courtney Jordan, Product Designer Matt Origoni, Senior Content Manager Dorothy Sinclair, Senior Production Editor Valerie Vargas, Senior Designer Wendy Lai, Editorial Assistants Iana Robitaille and Anna Durkin, and

Marketing Assistant Ashley Migliaro. Thank you to Amy Scholz, Susan Elbe, George Hoffman, Tim Stookesberry, and Steve Smith for their support and leadership in the Wiley's Global Education Division.

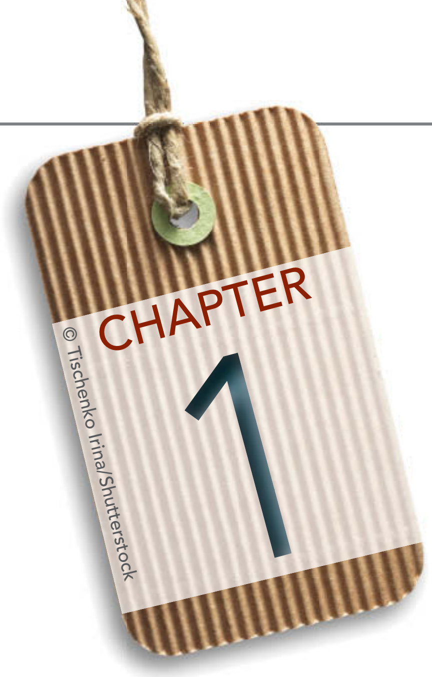
In the course of developing *Managerial Accounting*, we have benefited greatly from the input of manuscript reviewers, accuracy checkers, supplement authors, focus group participants, and class testers.

Dedication

To our C&C, Chad and Claire.

To our parents, Charles and Marilyn Boozer (in memory) and Cedric and Shirley Davis.

Contents



ACCOUNTING AS A TOOL FOR MANAGEMENT

UNITS	LEARNING OBJECTIVES
UNIT 1.1 What Is Managerial Accounting?	**LO 1:** Define managerial accounting. **LO 2:** Describe the differences between managerial and financial accounting. **LO 3:** List and describe the four functions of managers.
UNIT 1.2 Different Strategies, Different Information	**LO 4:** Explain how the selection of a particular business strategy determines the information that managers need to run an organization effectively.
UNIT 1.3 Ethical Considerations in Managerial Accounting	**LO 5:** Discuss the importance of ethical behavior in managerial accounting.

UNIT 1.1

What Is Managerial Accounting?

GUIDED UNIT PREPARATION

Answering the following questions while you read this unit will guide your understanding of the key concepts found in the unit. The questions are linked to the learning objectives at the beginning of the chapter.

LO 1	1. Define managerial accounting in your own words.
LO 2	2. Who are the primary users of financial accounting information?
	3. Who are the primary users of managerial accounting information?
	4. Compare and contrast managerial and financial accounting information.
LO 3	5. What are the four functions of management? How does management carry out each function?

What do a marketing manager, a human resources manager, and a production manager have in common? A large part of their job is decision making. To make the best decisions possible, these managers need a wealth of good information. Much of that information will be the product of a managerial accounting system.

*Watch the **What is Managerial Accounting?** and the Pizza Hut **Managerial Accounting Today** videos in WileyPLUS for an introduction to managerial accounting.*

Definition of Managerial Accounting

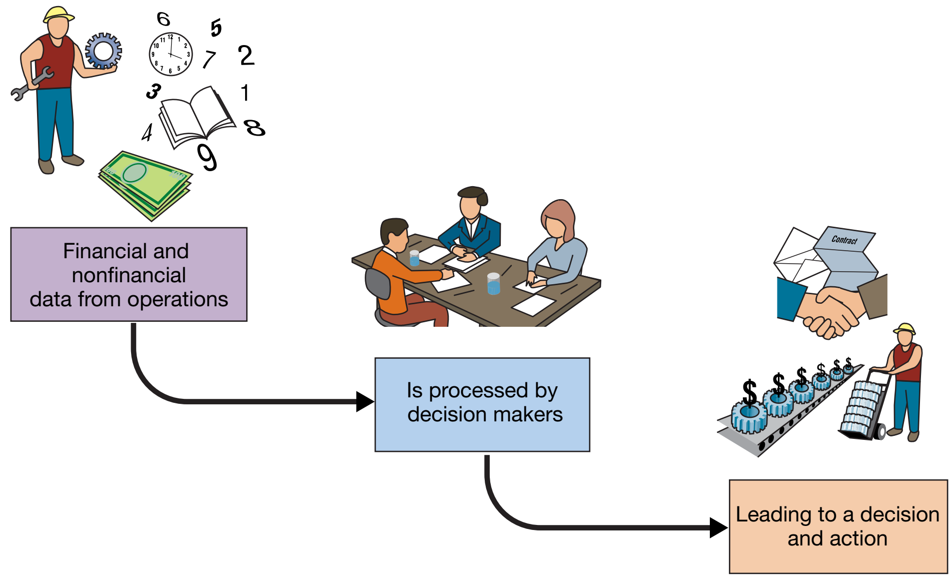
You may be wondering, "What is managerial accounting? Is it accounting done by managers? Is it managers' accountability for their actions?" The Institute of Management Accountants (IMA®), the leading worldwide professional organization for management accountants and finance professionals, first defined managerial accounting in 1981 as "the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate, and control within an organization and to assure appropriate use of and accountability for its resources."[1] However, in recognition of the increasingly strategic role that managerial accounting plays in today's organizations, the IMA issued the following revised definition in December 2008.

> 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.[2]

What does this formal definition really mean? Simply put, **managerial accounting** is the generation and analysis of relevant information to support managers' strategic decision-making activities. In this context, relevant information is information that will make a difference in the decision (see Exhibit 1-1). Managerial accounting adds value to the organization by helping managers do their jobs more efficiently and effectively. In a recent article, Peter Brewer discusses how management accounting adds value to the organization "by providing leadership, by supporting a company's strategic management efforts, by creating operational alignment throughout an organization, and by facilitating continuous learning and improvement."[3]

EXHIBIT 1-1

Managerial accounting.



Comparison of Managerial and Financial Accounting

If you have completed a financial accounting course, you are familiar with many of its concepts. If you have not already taken a financial accounting course, you may have read about financial accounting issues in publications such as *The Wall Street Journal* or *Bloomberg Businessweek*. If you have a little knowledge of financial accounting, it will be useful to compare and contrast what you know about financial accounting to managerial accounting. Exhibit 1-2 summarizes the differences between managerial accounting and financial accounting.

EXHIBIT 1-2

Comparison of managerial and financial accounting.

	Managerial Accounting	Financial Accounting
Primary users	Internal—managers and decision makers	External—investors and creditors
Mandated rules	None	Generally accepted accounting principles (GAAP)
Reporting unit	Organizational segments such as divisions, locations, and product lines	Organization as a whole
Time horizon	Past results and projected future results	Past results
Timing of information	As needed, even if information is not exact	After the end of an accounting period

Internal versus External Users

When most people think about accounting, they think about financial statements such as those contained in corporate annual reports. The purpose of such statements is to communicate information about the financial health of a company to external users—people outside the company such as creditors and current or potential investors. The information contained in financial statements benefits those external users who otherwise would have no access to financial or operating information about a company.

Managerial accounting, on the other hand, benefits internal users. It includes reports and information prepared for a range of decision makers within the organization. These reports come in a variety of formats, each designed to provide the ultimate decision maker with the appropriate information.

The information provided by managerial accountants is *not* disseminated to the general public. To do so would be to provide competitors with vital information about corporate strategies and capabilities. Imagine what could happen if Samsung were to report publicly what it cost the company to produce a 55-inch 4K ultra-high-definition television. If Samsung's cost was higher than Sony's, Sony's sales manager could start and win a price war simply by setting Sony's price lower than Samsung's cost. Sony would still make money on the televisions it sold, but at the lower price, Samsung would lose money.

Lack of Mandated Rules

All public companies that are traded on a United States stock exchange and governed by the Securities and Exchange Commission (SEC) must prepare financial statements following **generally accepted accounting principles (GAAP)**. Many other nonpublic companies prepare GAAP-based financial statements at the request of creditors. GAAP "rules" govern how transactions are valued and recorded and how information about them is presented. Since external users of financial statements have no way to verify the reported information, GAAP provides a level of protection or assurance that the reports will follow certain standards. Managerial accounting, on the other hand, has no comparable set of rules governing what information must be provided to decision makers or how that information is presented. Since internal users have access to all of the underlying data, they can create reports that suit their particular decision-making needs. In fact, managerial accounting is completely optional—a company does not have to prepare managerial accounting reports. However, a company is unlikely to be successful in the long run without adequate managerial accounting information to support decision makers.

Consider the case of a family-run lumber mill that borrowed $2 million from the bank to modernize its operations, but then had trouble generating enough cash to repay the loan. The bank brought in consultants to improve the mill's profitability. In talking with the lumber mill's president and accountant, the consultants realized that the company had not prepared basic managerial accounting information such as the cost of producing a particular size of lumber. The product that managers thought was most profitable (because the company could sell all it could produce) was actually being sold at a loss. Unfortunately, the mill was not able to return to profitability and was eventually sold to satisfy the bank's loan.

Focus on Operating Segments

GAAP-based financial statements present a picture of the financial health of the company as a whole. Think about how inventory is reported on the balance sheet. If the company is a merchandising firm, inventory is just one number. But does Macy's department store have only one kind of inventory? Of course not. The store sells men's clothes, women's clothes, shoes, and many other items. In each of those categories Macy's carries different styles, colors, and sizes. How could a manager know how well a certain item sells by looking at one number on a balance sheet? It would be impossible.

Macy's inventory decision is just one example of the decisions managers face. Because most managerial decisions are made at an operating-segment level, managerial accounting information must focus on smaller units of the company. Decision makers need to know about product lines, manufacturing plants, business segments, and operating divisions.

Focus on the Future

Financial accounting exists to report the results of operations. The basic financial statements always report on transactions and events that have already occurred. Thus, the information contained in these financial statements is historical in nature. Managerial accounting, too, reports historical information, often with the purpose of comparing actual results to budgeted results. But managerial accounting helps managers to make decisions that will affect the company's future by projecting the results of certain decisions. That does not mean that managerial accountants don't use historical amounts in developing future projections, but it does mean that they can and will estimate the future results of certain decisions. That is the only way to evaluate whether a decision will have a positive or negative effect on the company.

Suppose Panera Bread is trying to decide whether to open a new restaurant in Greenville, South Carolina. Before making a decision, managers will project the new restaurant's sales and profits. While they might look at the historical performance of their other restaurants in the Greenville area, ultimately it is their future projections rather than past performance that will determine whether they open a new store.

Emphasis on Timeliness

Suppose you have been thinking about opening a business. One day, you just happen to drive by what looks like the perfect location. You call the real estate broker who listed the property to get details and are offered what appears to be an attractive price if you purchase the property within 48 hours. You might like to do a lot of detailed research and analysis first, but time will not allow you that luxury. You have only two days to get all your information together. So you do the best you can and then decide whether to purchase the building.

Because of the nature of many business decisions, managerial accountants place more emphasis on the timely delivery of information than on the delivery of information that is precise to the penny. Financial accountants, in contrast, record transaction amounts to the penny, and it often takes weeks or even months after the end of the period to gather all of the necessary information to prepare accurate reports for external users.

Time-limited windows of opportunity often arise in business. Decision makers might have a long list of information they would find helpful, and they might want that information to be very accurate. But sometimes they might need to sacrifice precision for timeliness and make a decision without all the information they want. After all, receiving highly accurate information after the deadline has passed would be of no help. J. David Flanery, Papa John's International, Inc.'s then senior vice president, CFO, and treasurer, told students at the 8th Annual

IMA Student Leadership Conference that "Most decisions are made without 100% certainty, so you've just got to trust your gut. . . . There is a range of possible answers. . . . So you've got to go with a decision and move ahead—and have confidence in your own judgment to do that."[4]

The Manager's Role

Have you ever been in a group of people who are trying to decide which restaurant to go to? Often in this type of situation, everyone is waiting for someone else to make the decision. As a result, nothing gets done. The same is true in business. Someone with authority must take responsibility for making decisions and directing operations. That person is a manager. Managers are found throughout the organization, from the lower operational levels up to the chief executive officer's suite.

Managerial accounting is designed to assist managers with four general activities: planning, controlling, evaluating, and decision making (see Exhibit 1-3). While this list may appear to imply a linear relationship between the four activities, in practice that is not the case. Frequent feedback from all four activities creates more of a circular decision-making process.

	Planning	Controlling	Evaluating	Decision Making
What is it?	Strategic: deciding on long-term direction of corporation Operational: deciding how to implement long-term strategy	Monitoring day-to-day operations to ensure that processes operate as required	Comparing actual results to planned results for the period	Choosing a course of action
Who does it?	Strategic: upper management Operational: upper and middle management	Managers and workers	Managers	Managers and workers
When is it done?	Strategic: annually, focusing on a 5- to 10-year period Operational: monthly, quarterly, or annually, focusing on no more than the next 12 months	In real time, hourly, daily—the sooner the better	Weekly, monthly, quarterly, annually	As needed
Examples	Preparing the annual operating budget that allocates resources	Checking a sample of products to determine whether they are in compliance with customer specifications	Reviewing the regional sales history for the year during the regional sales manager's annual performance appraisal	Dropping a slow-selling product from the catalog

EXHIBIT 1-3 *The role of managers.*

Planning

Managers participate in both short-term and long-term planning activities. **Long-term planning**, often referred to as strategic planning, establishes the direction in which an organization wishes to go. Managers must decide where the company is currently and where they want it to be in the future. Typical questions asked during the strategic planning process include: "Who are we?"; "What do we do?"; "What value do we deliver to our customers?" "Why do we do what we do?" and "Where do we want to go?" Many organizations prepare a formal strategic plan that documents the answers to these questions and provides direction for a five- to ten-year period.

Once a strategy has been established for the organization as a whole, managers begin to develop plans for achieving that strategy. **Short-term planning** or **operational planning** translates the long-term strategy into a short-term plan to be completed within the next year. One of the primary products of this planning stage will likely be a budget that specifies how resources will be spent to achieve the organization's goals. Managerial accountants provide much of the information that is used to prepare the budget.

Consider the case of San Francisco–based Design Within Reach, Inc., a retailer of modern design furniture and accessories (http://www.dwr.com/). When founder Rob Forbes experienced difficulty acquiring modern design furniture for his home, he decided that there had to be a better way to buy furniture. His company has adopted a strategy of accessibility, selling its products through multiple channels including a catalog, a sales force, a website, and retail showrooms. Design Within Reach delivers value to customers by maintaining its inventory in a single warehouse and shipping the majority of orders within 24 to 48 hours. Compared to what can be a three- to six-month wait for delivery at many other dealers, its service is exceptional.

Strategically, Design Within Reach aimed to become the country's leading provider of modern design furniture and accessories. To accomplish this goal, the company opened 66 studios, two DWR: Tools for Living stores, two outlets, and one fulfillment center between 2000 and 2008. Unfortunately, a fast expansion coupled with a weakened economy created financial difficulties for the company, and the company voluntarily delisted itself on the Nasdaq stock exchange in July 2009. By early 2010, company managers decided to close the Tools for Living stores, though the product line was still available through other outlets. Herman Miller purchased the company in 2014, and today Design Within Reach operates 32 studios, one outlet, and one warehouse. Though the fundamental strategy has not changed, managers continue to look for more focused ways to implement the strategy.[5]

Controlling and Evaluating

After plans have been put in place and the organization has begun to move toward its goals, managers become involved in **controlling** activities. One purpose of controlling activities is to monitor day-to-day operations to ensure that processes are operating as expected. If something appears out of line, corrective action should be taken before the problem becomes worse. For instance, Kellogg's monitors how much Raisin Bran® goes into each cereal box. If the box is supposed to have 20 ounces of cereal, the company doesn't want to overfill it with 23 ounces or underfill it with only 19 ounces. Without controlling activities, an organization will not be able to track its performance in implementing the strategic plan.

Managers can perform controlling activities in real time as operations are occurring, or they may choose to perform them once an hour or once a day. The frequency will be based on the potential consequences of the process being out of control. All other things held equal, the more frequent the controlling activity, the faster an out-of-control process can be corrected. And generally, the faster the process is corrected, the better the results.

Besides production processes, managers also monitor individual employees' actions, though less frequently than they do process control. Managers want to motivate employees to help the organization achieve its strategic plan and must assess how well they have performed relative to expectations. This task is an **evaluating** activity. Once operations have been completed (say, at the end of a job or a period), managers review the information and compare actual results to planned results. The results of this evaluation may lead to changes in business processes, or even in strategy. To help managers with their evaluations, managerial accountants often perform variance analysis and prepare performance reports. The information they prepare is used by managers as the basis for evaluating employees and awarding bonuses.

THINK ABOUT IT 1.1

Companies that buy online advertising often pay search engine sites based on the number of times that web surfers "click" on the company's hyperlink. This practice has given rise to "click fraud" in which the company's competitors erode the advertising budget or websites increase their advertising revenues through false clicking on such links. As a manager, how could you use controlling activities to determine whether your company is a victim of "click fraud"?[6]

Decision Making

Decision making is at the forefront of managerial activity. A human resource manager must select the best health care plan for the company's employees. A sales manager must decide whether to pay the sales staff a salary or a commission. An advertising manager must choose the campaign that will deliver the best message to potential customers. An operations manager must select the best piece of equipment. Managers face such choices on a daily basis. Before making a decision, they need information about the available alternatives. Managerial accountants provide much of that information.

Management in Action

Let's look at a real-world example of the four managerial functions in action. GLK Foods, LLC (http://www.glkfoods.com) traces its roots in Bear Creek, Wisconsin, back to 1900. Annual sauerkraut production at its plants is now more than 125,000 tons, making the company the world's largest sauerkraut producer, with over 85% of the market in the northern hemisphere. How do managers at GLK Foods plan, control, evaluate, and make decisions?

One of the planning activities that occupies managers is inventory planning. To produce 125,000 tons of sauerkraut, the company must obtain 170,000 tons of raw cabbage. That means planning cabbage purchases, production schedules, and inventory levels. Inputs to the planning process include projected sales forecasts, projected cabbage supply and prices, and anticipated manufacturing capacity. The outcome of this planning process includes a production schedule