



MANAGERIAL ACCOUNTING

MORSE • ZIMMERMAN

To Leslie, Jared, Tyler, Danielle, and Amy

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PREFACE

During their professional careers, managers in all organizations, large and small, profit and not-for-profit, interact with the organization's accounting systems. Managers often use their accounting system to acquire information for making planning decisions such as what products or services to offer and at what prices. At other times, the accounting system can be used to measure the performance and influence the behavior of employees. In this way, an accounting system within an organization is both a source of information for making planning decisions as well as part of the organization's control mechanism.

Managerial Accounting provides students with an understanding and appreciation of the strengths and limitations of an organization's accounting system.

INTENDED AUDIENCE

"Logical and internally consistent, comprehensive, easy to read, and contemporary without being trendy."

[Eric Johnson, University of Toledo]

Managerial Accounting is written with the premise that the future user is the primary audience. While

Users of this textbook will become more intelligent users of the information generated by the accounting system. Students will begin to think critically about this system and will be able to analyze proposed changes to the system. *Managerial Accounting* very clearly demonstrates that the practice of managerial accounting is an integral part of the firm's organizational infrastructure, not an isolated set of computational topics.

**"This book will make
"traditional" managerial
accounting texts obsolete."**

[Eric Johnson, University of Toledo]

preparation of accounting information is an important skill, this text focuses on the analysis of the information generated by the accounting system for both planning and control decisions. For this reason, business majors and current and future managers will benefit greatly from the material presented. Future accounting majors will also gain a better understanding of how accounting information is used for effective planning and control within all types of organizations.

DISTINGUISHING CONTENT FEATURES

EMPHASIS ON GAINING AN UNDERSTANDING OF ORGANIZATIONS

Managerial Accounting will expose students to many different organizational settings. They will gain an understanding of the different roles of managers within organizations and will see the importance of cross-functional skills to achieving a successful managerial career. Students will understand the

**"Morse and Zimmerman have
done an excellent job of
demonstrating that managerial
accounting is an integral part
of an organization's
infrastructure."**

[Wilfred Devine, Villanova University]

underlying importance of accounting information within an organization, as it is consistently related to the dichotomy of planning and control decisions.

ORGANIZATIONAL EXAMPLES IN EACH CHAPTER

Every chapter's text material is complemented by examples from organizations whose product and/or service is very familiar to students. For example, chapters are built around organizations such as a

"Morse and Zimmerman have a knack for examples that cut to the essence of accounting techniques."

[Hugh Warren, California State University-LA]

compact disc store, a skateboard manufacturer, and the department of motor vehicles. Organizational examples are typically of smaller businesses, and many of them deal with the increasingly vibrant service sector. These organizational examples are consistently referenced throughout the chapter, making them vital to a chapter's understanding and contributing to the ease of comprehension and student interest in the material.

"The running example in each chapter is outstanding at showing the student how the theory fits into real world situations."

[Gwen Pate, University of Southern Mississippi]

RELEVANCE OF MATERIAL

Business majors, accounting majors, and all potential future managers will find *Managerial Accounting*

"A clear, no-nonsense presentation of the critical concepts for management accountants."

[Melvin Jolly, University of Idaho]

stimulating, challenging, and rewarding. The organizational examples in each chapter provide consistent proof that the material under review is important to a successful career. The focus on anal-

ysis and decision making will challenge students to become broader thinkers and more critical analyzers of business and accounting information.

"One of the greatest strengths of the text."

[Eric Johnson, University of Toledo]

END-OF-CHAPTER MATERIAL

The extensive end-of-chapter material has many options for instructor use and student reinforcement. The numerical examples presented throughout the chapters are complemented by many additional numerical problems in the problem material. Additionally, many thought-provoking discussion problems

"The numerical and discussion problems are significantly stronger than those in competing textbooks. They are much more diverse, challenging, and realistic."

[Frank Luh, Lehigh University]

serve to reinforce the important concepts in each chapter. Cases are used to tie several concepts together and present a more comprehensive learning

"Very good match of questions and problems to chapter material. It is not just that the questions fit the topics, but that the questions fit the tone of the material."

[Leslie Oakes,

University of New Mexico]

experience for the student. Several spreadsheet problems are identified and templates provided for

"I have been very impressed with the end-of-chapter material throughout the text. There is a good mix of complexity and the chapter material has generally been covered well."

[Paul Juras, Wake Forest University]

each chapter. Finally, cooperative learning examples and writing exercises are included in most chapters.

CONCEPTUAL FRAMEWORK

Managerial Accounting offers, for the first time, a conceptual framework for the study of this important subject. The concepts of opportunity cost and organization theory serve as the underlying framework

"The text lays out a framework that accountants and others can use to solve problems that involve accounting information. This framework can be applied to a much larger number of institutions and decisions than the cost systems that continue to be the focus of many textbooks."

[Leslie Oakes,
University of New Mexico]

to organize the analysis. In the early chapters when planning decisions are being explored, opportunity cost serves as the foundation for this discussion. When the focus of the text moves to the control function, recent discussions of organization theory provide the foundation.

"The authors effectively tie in various parts of managerial accounting into a seamless fabric."

[David Lesmond, SUNY-Buffalo]

TRADE-OFFS

Accounting systems cannot always fulfill the two demands of making planning decisions and controlling managerial actions. It is common for accounting systems used primarily as a control mechanism to be less effective as a planning tool. Existing texts do not emphasize the trade-off between designing an accounting system for planning decisions and designing it for control. For example, activity-based costing presumably improves the accounting sys-

tem's ability for making planning decisions like product design and product pricing. Existing texts fail to address how implementing activity-based costing affects control. *Managerial Accounting* pays attention to these trade-offs.

"The trade-offs are described clearly with good, simple examples."

[Roby Sawyers, North Carolina State University]

LOGICAL SEQUENCE

Due to the earlier mentioned conceptual framework, the chapters in *Managerial Accounting* clearly build on each other. The first chapter focuses on the business environment, recent advances in management accounting, and the dual role of the accounting sys-

"A major strength is the early focus on management decision making rather than product costing."

[Joyce Strawser, Seton Hall University]

tem. Chapters 2–5 focus on planning decisions within organizations. Chapters 6 and 7 return to the foundation of organization theory and identify organizational problems of control. Chapters 9–12 develop the basic theme of the trade-off that exists when using an accounting system for both planning and control decisions. Chapter 12 continues the discussion of new manufacturing methods, and many of these are used to critically analyze the basic themes of the book. The final three chapters (13, Capital Budgeting; 14, Standard Costing; and 15, Managerial Accounting in International Organizations) can be taught at the end of the course or after Chapter 6 at each individual instructor's own discretion.

"Overall I find the organization and development to be excellent."

[Ram Ramanan, University of Notre Dame]

UNIQUE PEDAGOGY

Besides the consistent use of organizational examples throughout each chapter, which are unique to *Managerial Accounting*, several other pedagogical de-

vices are used to enhance student understanding and to develop the reader's critical thinking skills.

LEARNING OBJECTIVES AND CONCEPT REVIEWS

Presented at the beginning of each chapter, learning objectives are used to provide a road map for the students. Making sure one understands the learning objectives as one progresses through the chapters is vital to gaining a complete understanding of the material being presented. To better facilitate this learning, *Managerial Accounting* provides Concept Reviews at periodic

CONCEPT REVIEW

1. How do decision rights cascade from top-level managers to the rest of the employees of the organization?
2. How does linking decision rights and knowledge benefit an organization?
3. How does the transfer of knowledge allow for linking knowledge and decision rights and still allow for control?

points throughout the chapters. These Concept Reviews ensure that students have fully comprehended the presentation before continuing their study of the chapter. Answers appear at the end of this book.

WHAT'S HAPPENING

A labor strike recently idled General Motors' plants around the United States, forcing the company to lay off thousands of workers. Analysts estimated that General Motors was losing \$300 million a week in lost sales. At the same time it was noted that the company had 82 days of finished cars in inventory. What is the opportunity cost to General Motors of this strike?

WHAT'S HAPPENING SIDEBARS

These sidebars, sometimes as many as 3–4 per chapter, present a scenario that students have observed and/or experienced in their own lives. By presenting a unique twist to this experience, students will be challenged to re-think their experience and perhaps gain a new and different understanding. Students can find explanations for this feature at the end of this book.

TEAM DECISIONS REGARDING . . .

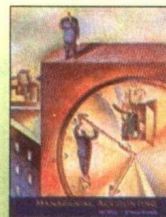
Once in every chapter, students will be shown how the book team for *Managerial Accounting* made various decisions regarding the execution of this product. As future users of accounting information, students will no doubt benefit from a better understanding of why certain accounting information was useful in executing this unique new textbook. Business students might also gain a better understanding of a discipline that will ultimately be their career of choice. Most importantly, students will consis-

tently see that accounting is not an isolated set of computational activities, but rather a crucial function that plays a role in the success of all products and services and, ultimately, all organizations.

THE STORY OF MANAGERIAL ACCOUNTING

Team Decisions Regarding Strategy

The *Managerial Accounting* book team was faced with an initial strategic decision. Irwin Publishing already had the best-selling management accounting book in the United States. One possible solution was to modify that management accounting book to accommodate the changing educational environment. Such a change, however, might cause the company to lose many satisfied customers. The other alternative was to develop a new management accounting book that would compete with the existing management accounting book. How should Peggy, the team accountant, use the notion of opportunity cost to help the team make this strategic decision?



NUMERICAL EXAMPLES AND SOLUTIONS

At relevant points throughout the chapters, *Managerial Accounting* provides numerical examples that reinforce the key quantitative skills that students need in order to successfully complete this course. Numerical examples are then revisited in the end of chapter material, where as many as three numerical

problems are provided for each numerical example in the chapter. To help the student fully understand how to solve numerical problems, the authors refer the student to a specific numerical example in the text.

NUMERICAL EXAMPLE 2.7

Jackson Company makes computers. They estimate that the annual fixed costs are \$100,000 and variable costs are \$100 per unit. What are total expected costs if the company makes 500 computers per year? What are total expected costs if the company makes 700 computers per year?

■ **SOLUTION** Total expected costs if Jackson Company makes 500 computers per year is the sum of fixed costs (\$100,000) and variable costs ($\$100 \times 500 = \$50,000$), or \$150,000. Total expected costs if Jackson Company makes 700 computers per year is the sum of fixed costs (\$100,000) and variable costs ($\$100 \times 700 = \$70,000$), or \$170,000.

NP 2-17: Variable and Fixed Costs (LO 6; NE 2.7) The school newspaper editor estimates that the fixed cost of an edition is \$10,000. The variable cost is \$.03 per copy.

- a. What is the expected cost of an edition if 3,000 copies are produced?
- b. What is the expected cost of an edition if 5,000 copies are produced?

SUMMARY, KEY TERMS, SELF-STUDY PROBLEMS, NUMERICAL PROBLEMS, DISCUSSION PROBLEMS, AND CASES

These additional elements make up the end-of-chapter material in each chapter.

INSTRUCTOR SUPPLEMENTS

SOLUTIONS MANUAL

Prepared by the authors, this manual contains detailed solutions for all end of chapter material in *Managerial Accounting*. The Solutions Manual has been accuracy checked by independent parties. It is also available in Microsoft Word® format for those who want to manipulate the material for alternative classroom use.

INSTRUCTOR'S RESOURCE MANUAL

Prepared by the authors, this manual includes detailed teaching ideas for *Managerial Accounting*. The authors discuss ways to divide the text into class size sections for 3- or 4-credit quarters or semester courses, problem material is classified according to difficulty, and alternative teaching strategies are given for end of chapter material (including ways to use end of chapter material to promote cooperative learning). Conversion notes to make the transition from leading competitors to *Managerial Accounting* are also provided and will highlight some of the material available to adopters of *Managerial Accounting*. The Instructor's Resource Manual also provides additional "real-life" scenarios. These scenarios include references to simple organizations that students understand and current events of better-known, larger organizations. This manual also includes a disk in Microsoft Word® format for easiest use and maximum flexibility.

SOLUTION TRANSPARENCIES

All numerical problems presented in *Managerial Accounting* will have their solutions available in acetate format for classroom projection.

PRAXIS READY SHOWS

Prepared by Jon A. Booker, Charles W. Caldwell, Susan C. Galbreath, and Richard S. Rand, all of Tennessee Technological University, Ready Shows is a comprehensive package of multimedia lecture enhancement aids that use PowerPoint® software to illustrate chapter concepts.

PRAXIS READY SLIDES TRANSPARENCY MASTERS

Selected PowerPoint® slides from the Ready Shows product are available to adopters in a master format for easy classroom use. In addition, adopters of *Managerial Accounting* may utilize the Ready Shows disks to facilitate use of the entire slide package.

TEST BANK

Prepared by Jay Holmen of the University of Wisconsin-Eau Claire and Eric Johnson of the University of Toledo, this comprehensive test bank contains over 1,200 items. For each chapter of *Managerial Accounting*, adopters will have their choice of objective questions, numerical problems, discussion problems, and "What's Happening" questions.

COMPUTERIZED TESTING SOFTWARE

A computerized version of the manual test bank for more efficient classroom use is also available in either Macintosh, Windows, or DOS versions.

TELETEST

By calling a toll-free number, adopters of *Managerial Accounting* can specify the content of exams and

have a laser-printed copy of the exams mailed to them.

RICHARD D. IRWIN MANAGERIAL/COST VIDEO LIBRARY

These short, action-oriented videos provide the impetus for lively classroom discussion. This six-volume library includes videos of international and service companies as well as many manufacturing examples, as outlined below:

- Volume I: "Behind the Bill"
"The Vancouver Door Company"
"How Many Bucks in a Bag"
- Volume II: "Moving the Merchandise"
"Ogre Mills, after the Curtain Fell"

- Volume III: "Lean Production"
"Quality"
"The Manufacturing Process"

- Volume IV: "Computer-Integrated Manufacturing"
"Inventory Management"
"Service"

- Volume V: "Manufacturing"
"Supplier Development Outreach Program"
"Accounting Careers"

- Volume VI: "Atlas Foundry and Machine Company"
"Management Accounting and Concepts"
"International Accounting"

STUDENT SUPPLEMENTS

STUDY GUIDE

Students will find this essential in preparing for exams. The Study Guide allows the students to practice what they have learned by providing a variety of multiple choice, true/false, matching, and short answer questions, as well as numerical problems with solutions. Students can also use the Study Guide for a review of learning objectives, chapter summaries, and outline of topical coverage.

WINDOWS TUTORIAL

Irwin Windows Tutorial summarizes the essential points in each chapter and tests students' knowledge using objective questions and exercises. Students will find it an effective way to prepare for exams.

WEB TUTORIAL

Now students will be able to go on-line to review concepts presented in *Managerial Accounting*. Offering true-false and multiple-choice review, this tutorial will give enterprising students another learning option.

PRAXIS READY NOTES

Selected screens are printed from the PRAXIS Ready Shows product to enable students to be efficient note takers during classroom presentations. Ready Notes are available to students at a nominal cost and again will be an effective exam preparation tool.

SPATS (*Spreadsheet Applications Template Software*)

Selected numerical problems in the end of chapter material are available in Excel® for Windows® template format for student problem solving. These templates are available for duplication from a master or are shrinkwrapped with *Managerial Accounting* for a nominal charge.

RAMBLEWOOD MANUFACTURING, INC.

This computerized practice set was recently updated by Leland Mansuetti and Keith Weidkamp, both of Sierra College. This software simulates the operations of a company that manufactures customized fencing. It can be used to illustrate job-order costing systems with JIT inventory in a realistic setting. The entire simulation requires 10–14 hours to complete. A new feature prevents files from being transferred from one disk to another without detection. It is available in DOS and Windows formats and soon will be available in a multimedia format.

ROOM ZOOM: THE CPA SOURCE DISC

This multimedia, interactive CD-ROM provides an exciting guide to a CPA career. Students will be able to experience a day in the life of the CPA, review salary statistics, learn about scholarships and internships, understand the technology inherent in the profession, learn about the CPA exam, and much more. Available to students for a nominal charge when purchased from Irwin with *Managerial Accounting*, this innovative technology component would also be perfect for the first day of class.

ACKNOWLEDGMENTS

From the outset, we wanted to create a unique, yet accessible undergraduate textbook—one that would set the standard for future texts. To the extent we have succeeded in achieving our goals, this success is attributable to the efforts of numerous individuals. Much of the intellectual capital in the book is drawn from our colleagues at Cornell University, University of Oregon, and the University of Rochester, especially Tom Dyckman, Ron Hilton, John Elliott, Ray Ball, James Brickley, Clifford Smith, and Ross Watts. Some of the ideas in *Managerial Accounting* owe their existence to the extensive review and development process underlying *Accounting for Decision Making and Control* by Jerold Zimmerman (Burr Ridge, IL: Richard D. Irwin, 1995). Steve Ault and Kechia Anderson helped on earlier drafts by reading and providing comments. Barbara Schnathorst and Kate Walsh did a superb job of copyediting. Kathy Jones provided enormous assistance with the manuscript and solutions manual.

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Dale C. Morse
Jerold L. Zimmerman

CONTENTS IN BRIEF

CHAPTER 1		CHAPTER 10	
<i>Organizations and Accounting</i>	2	<i>Traditional Absorption Cost Systems</i>	338
CHAPTER 2		CHAPTER 11	
<i>The Nature of Costs</i>	30	<i>Problems with Absorption Cost Systems and Possible Solutions</i>	384
CHAPTER 3		CHAPTER 12	
<i>Cost Estimation</i>	60	<i>Management Accounting in a Changing Environment</i>	434
CHAPTER 4		CHAPTER 13	
<i>Estimating Product Costs and Activity-Based Costing</i>	100	<i>Investment Decisions</i>	470
CHAPTER 5		CHAPTER 14	
<i>Product Planning Decisions</i>	134	<i>Standard Costs and Variance Analysis</i>	516
CHAPTER 6		CHAPTER 15	
<i>Controlling Organizations</i>	170	<i>Managerial Accounting in Multinational Organizations</i>	564
CHAPTER 7		Endnotes	593
<i>Role of Accounting within Decentralized Organizations</i>	196	Thoughts on "What's Happening" Questions	597
CHAPTER 8		Answers to Concept Reviews	601
<i>Budgets and Budgeting</i>	238	Photo Credits	609
CHAPTER 9		Index	611
<i>Cost Allocations</i>	286		

CONTENTS

CHAPTER 1

Organizations and Accounting 2

- 1.1 Management Accounting in a Changing Environment 4
 - Changing Technology 4
 - Global Competition 6
- 1.2 The Nature of Organizations 8
- 1.3 The Role of Managers 10
 - Making Planning Decisions 10
 - Control: Managing, Motivating, and Monitoring People 11
- 1.4 The Role of the Accounting System 12
 - Use of Accounting for Making Planning Decisions 13
 - Use of Accounting for Control 14
 - Use of Accounting by External Parties 14
- 1.5 Trade-Offs in Using the Accounting System for Multiple Purposes 16
 - Trade-Off between Making Planning Decisions and Control 16
 - Trade-Off between Making Planning Decisions and External Reporting 16
 - Trade-Offs between Control and External Reporting 17
- 1.6 Multiple Accounting Systems 18
- 1.7 The Evolution of Management Accounting: A Framework for Change 19
- 1.8 Types of Management Accountants 21
- 1.9 Ethics and Management Accounting 22
- 1.10 Summary 24

CHAPTER 2

The Nature of Costs 30

- 2.1 Making Planning Decisions 32
 - Using Cost/Benefit Analysis 32

Opportunity Costs 35

Sunk Costs 38

- 2.2 Opportunity Costs and the Rate of Output 40
 - Opportunity Costs of Initiating Operations 40
 - Opportunity Costs of Normal Operations 40
 - Opportunity Costs of Exceeding Capacity 41
 - Graphical Analysis 41
 - Marginal and Average Costs 41
- 2.3 Approximations of Opportunity Costs 43
 - Fixed and Variable Costs 43
 - Historical Costs 45
- 2.4 The Benefit and Cost of Information 46
- 2.5 Summary 48

CHAPTER 3

Cost Estimation 60

- 3.1 Estimating Costs for Planning Decisions 62
 - Planning Decisions Related to the Cost of Products and Services 62
 - Planning Decisions Related to the Cost of Activities or Processes 67
 - Planning Decisions Related to the Cost of Organizational Subunits 70
 - Planning Decisions Related to the Cost of Customers 71
 - Planning Decisions Related to Suppliers 72
 - Planning Decisions Related to Costs Associated with Periods 74
- 3.2 Estimating Costs through Tracing: Direct and Indirect Costs 75
- 3.3 Estimating Costs through the Identification of Variable and Fixed Costs 78
 - Estimating Variable and Fixed Costs through Account Classification 79

	Visually Fitting Historic Cost Data	82
3.4	A Framework of Costs for Planning Purposes	85
3.5	Summary	86
	Appendix: Using Regression to Estimate Fixed and Variable Costs	87

CHAPTER 4

	<i>Estimating Product Costs and Activity-Based Costing</i>	100
4.1	Product Life Cycle and Product Costs	102
4.2	Estimating Direct Product Costs	106
4.3	The Nature of Indirect Product Costs	108
	Unit-, Batch-, Product-, and Facility-Level Costs	109
4.4	Using Cost Drivers to Trace Indirect Costs to Products	111
	Tracing Indirect Product Costs Using a Single Cost Driver	111
	Problems with Using a Single Cost Driver to Trace Indirect Costs	115
4.5	Activity-Based Costing (ABC)	117
4.6	Summary	122

CHAPTER 5

	<i>Product Planning Decisions</i>	134
5.1	Pricing Decisions	136
	Pricing to Maximize Value	136
	Cost-Based Pricing	138
	Cost as a Lower Boundary for Price	140
5.2	Cost-Volume-Profit Analysis	142
	Break-Even Analysis	144
	Achieving a Specified Profit	146
	Graph of CVP Analysis	147
	Problems with CVP Analysis	148
5.3	Product Mix Decisions	149
	Decision to Add a Product or Service	150
	Decision to Drop a Product or Service	151
	Decision to Make or Buy a Product or Service	152
	Decision to Process a Service or Product Further	153
	Decision to Promote a Product or Service	154
5.4	Product Mix Decisions with Constraints	155
	Product Mix Decisions with a Single Constraint	155

	Theory of Constraints	156
5.5	Summary	159
	Appendix: Achieving a Specified After-Tax Profit	160

CHAPTER 6

	<i>Controlling Organizations</i>	170
6.1	Control within an Organization	172
6.2	Knowledge and Decision Making within an Organization	173
6.3	Motivating Individuals toward the Goals of an Organization	176
	Self-Interested Behavior	177
	Monitoring Costs	177
	Performance Measurement	178
	Rewarding Performance through Contracts	181
6.4	Organizational Structure and the Framework for Change Revisited	182
6.5	Separating Planning Decision Process from Decision Control	184
	Steps of a Decision Process	185
	Examples of Internal Control Systems	186
6.6	Summary	188

CHAPTER 7

	<i>Role of Accounting within Decentralized Organizations</i>	196
7.1	Controllability Principle	198
7.2	Responsibility Centers and Performance Measures	200
	Cost Centers	200
	Profit Centers	202
	Investment Centers	204
	Identifying Responsibility Centers	212
7.3	Transfer Pricing	212
	Existence of a Competitive Market for the Intermediate Product or Service	216
	No Competitive Market Exists for the Intermediate Product or Service	218
	Choosing Transfer Prices: Control and Making Planning Decisions	220
7.4	Summary	223

CHAPTER 8

	<i>Budgets and Budgeting</i>	238
8.1	The Purpose of Budgets	240
	Budgeting for Planning Decisions	240

	Budgeting for Control	241
8.2	Conflict between Planning and Control	243
8.3	How Budgeting Helps Resolve Organizational Problems	245
	Short-Run versus Long-Run Budgets	245
	Line-Item Budgets	246
	Budget Lapsing	247
	Static versus Flexible Budgets	249
	Incremental versus Zero-Base Budgets	251
8.4	Comprehensive Master Budget Illustration	252
	Description of the Firm: NaturApples	253
	Overview of the Budgeting Process	253
	Sales Budget	255
	Production Budget	256
	Selling and Administration Budget	257
	Capital Investment Budget	258
	Financial Budget	258
	Budgeted Financial Statements	259
8.5	Summary	265
	Appendix: Monthly Cash Flow Estimates and Spreadsheets	266

CHAPTER 9

	<i>Cost Allocations</i>	286
9.1	Allocating Indirect Costs	288
9.2	Reasons for Allocating Indirect Costs	289
	Satisfying External Requirements	290
	Cost Allocation for Planning Purposes	294
	Cost Allocation for Control Reasons	296
9.3	Basic Steps of Cost Allocation	299
	Defining the Cost Objects	299
	Accumulating the Indirect Costs in Cost Pools	300
	Choosing an Allocation Base	301
	Estimating an Application Rate	303
	Distributing Indirect Costs Based on Usage of the Allocation Base	307
9.4	Segment Reporting	308
9.5	Summary	310
	Appendix: Allocating Costs of Service Department with Interactions	312

CHAPTER 10

	<i>Traditional Absorption Cost Systems</i>	338
10.1	Absorption Costing in Organizations	340

10.2	Job-Order Costing	341
10.3	Cost Flows through the Accounts	345
10.4	Allocating Overhead to Jobs	348
	Over- and Underabsorbed Overhead	349
	Why Worry about Over- and Underabsorbed Overhead?	351
	Accounting for Over- and Underabsorbed Overhead	352
	Multiple Allocation Bases	354
	Allocation of Overhead by Departments	357
10.5	Process Costing	359
10.6	Summary	362
	Appendix: Cost of Goods Manufactured and the Cost of Goods Sold and Alternative Cost Flow Methods for Inventory	364

CHAPTER 11

Problems with Absorption Cost Systems and Possible Solutions 384

11.1	Criticisms of Absorption Cost Systems	386
	Incentive to Overproduce	386
	Underuse of Allocation Base Used to Allocate Fixed Costs	389
	Misleading Product Costs	390
	Alternatives to Traditional Absorption Costing Systems	391
11.2	Allocating Overhead Based on Practical Capacity	392
11.3	Variable Costing	395
11.4	Activity-Based Costing/Activity-Based Management	398
	Planning Decisions through Activity-Based Management	399
	Control Decisions through Activity-Based Management	401
	Acceptance of ABC	403
11.5	Joint Costs	406
11.6	Summary	410
	Appendix: Allocating Joint Costs	411

CHAPTER 12

Management Accounting in a Changing Environment 434

12.1	An Integrative Framework for Change and Management Accounting	436
	Environmental and Competitive Forces Affecting Organizations	436

Investment Opportunities	437
Organizational Structure	440
Making Planning Decisions and the Value of the Organization	440
The Role of Management Accounting and Change	441
12.2 Innovations and Management Accounting Systems	442
Productivity and Productivity Measures	443
Total Quality Management and Quality Measures	446
Just-in-Time (JIT) Processes	453
12.3 When Should Management Accounting Be Changed?	458
12.4 Summary	459
 CHAPTER 13	
<i>Investment Decisions</i>	<i>470</i>
13.1 Long-Term Investment Decisions	472
The Capital Budgeting Process	472
Opportunity Cost of Capital	473
13.2 Investment Criteria Ignoring the Opportunity Cost of Capital	476
Payback	476
Accounting Rate of Return	477
13.3 The Net Present Value of Cash Flows	479
Estimating Cash Flows for Calculating Present Values	481
Adjusting the Discount Rate for Risk	484
13.4 Internal Rate of Return (IRR)	486
13.5 Capital Budgeting Methods Used in Practice	490
13.6 Summary	491
Appendix: Interest Rate Mathematics	493

 CHAPTER 14	
<i>Standard Costs and Variance Analysis</i>	<i>516</i>
14.1 Standard Costs	518
Reasons for Standard Costing	518
Setting and Revising Standards	519
14.2 Direct Labor and Direct Materials Variances	522
Direct Labor Variances	522
Direct Materials Variances	527
14.3 Incentive Effects of Direct Labor and Materials Variances	532

Incentive to Build Inventories	532
Externalities	533
Discouraging Cooperative Effort	533
Mutual Monitoring Incentives	534
Satisficing Behavior	534
14.4 Overhead Standard Costs and Variances	535
Expected, Standard, and Actual Usage of the Allocation Base	536
Budgeted, Applied, and Actual Overhead	537
Incentive Effects of Overhead Standards and Variances	538
14.5 Variance Investigation	540
14.6 Costs and Benefits of Using Standard Costing Systems	541
14.7 Summary	543
Appendix: Overhead Variances	545

 CHAPTER 15	
<i>Managerial Accounting in Multinational Organizations</i>	<i>564</i>
15.1 International Trade and Multinational Organizations	566
15.2 Different Currencies	568
Exchange Rates	568
Managerial Importance of Exchange Rates	570
15.3 Multiple Taxing Authorities	571
15.4 Accounting Standards for External Reporting	573
15.5 Cultural Differences	575
15.6 International Transfer Pricing Issues	576
Tax Minimization	577
Political Considerations	579
Trade-Offs with Planning Decisions and Control	580
15.7 Performance Evaluation	581

Appendix: Other Government Taxes and Regulations	585
Endnotes	593
Thoughts on "What's Happening" Questions	597
Answers to Concept Reviews	601
Photo Credits	609
Index	611

MANAGERIAL ACCOUNTING

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CHAPTER 1

Organizations and Accounting

LEARNING OBJECTIVES

1. Explain how technological innovation and global competition can affect an organization and its management accounting system.
2. Identify the basic processes of an organization's structure.
3. Describe the role of managers in organizations.
4. Explain the critical role played by management accounting in making planning decisions and controlling managers to work toward organizational goals.
5. Identify the trade-offs that exist in using information for making planning decisions, control, and external reporting.
6. Describe the advantages and disadvantages of having multiple accounting systems.
7. Identify the roles of different types of management accountants.
8. Recognize the role of judgment and ethics in making management accounting choices.

COMPACT DISC STORES



When Diane Johnson approached her friend, Janice Nishimura, about investing in a compact disc store, Janice was not very excited. But Diane persisted. She explained that music stores don't have to pay for compact discs (CDs) until they are sold and any unsold CDs are returned to the producer of the CD. Therefore, there are no initial investment requirements for inventory and no risk of unsold inventory.

Diane's business strategy was to have low markups on CDs and attempt to sell large volumes. Diane also wanted to support local recording artists by reserving some shelf space for their CDs.

Diane eventually convinced Janice to invest \$50,000 along with her own \$50,000 to form a partnership. Diane would receive an annual salary of \$30,000 for managing the store and the remaining profits would be shared equally. Janice would not be involved in management. They borrowed \$200,000 from a bank and leased space in the center of town for the initial Compact Disc Store. After sales exceeded expectations, two more Compact Disc Stores were opened in the suburbs. Managers were hired to operate the two stores in the suburbs.

With the growth of the business, problems began to arise. Sales were not as high as expected at one store in the suburbs, and the other store appeared to suffer from considerable shoplifting. Competition in the retail CD business has increased with a national chain opening a store near one of the stores in the suburb. In addition, further expansion would require another loan from the bank.

Diane and Janice must make some decisions about how to react to the threat of increased competition. They realize that the stores must be much more sensitive to their customers and operate more efficiently, but they aren't sure exactly what to do.