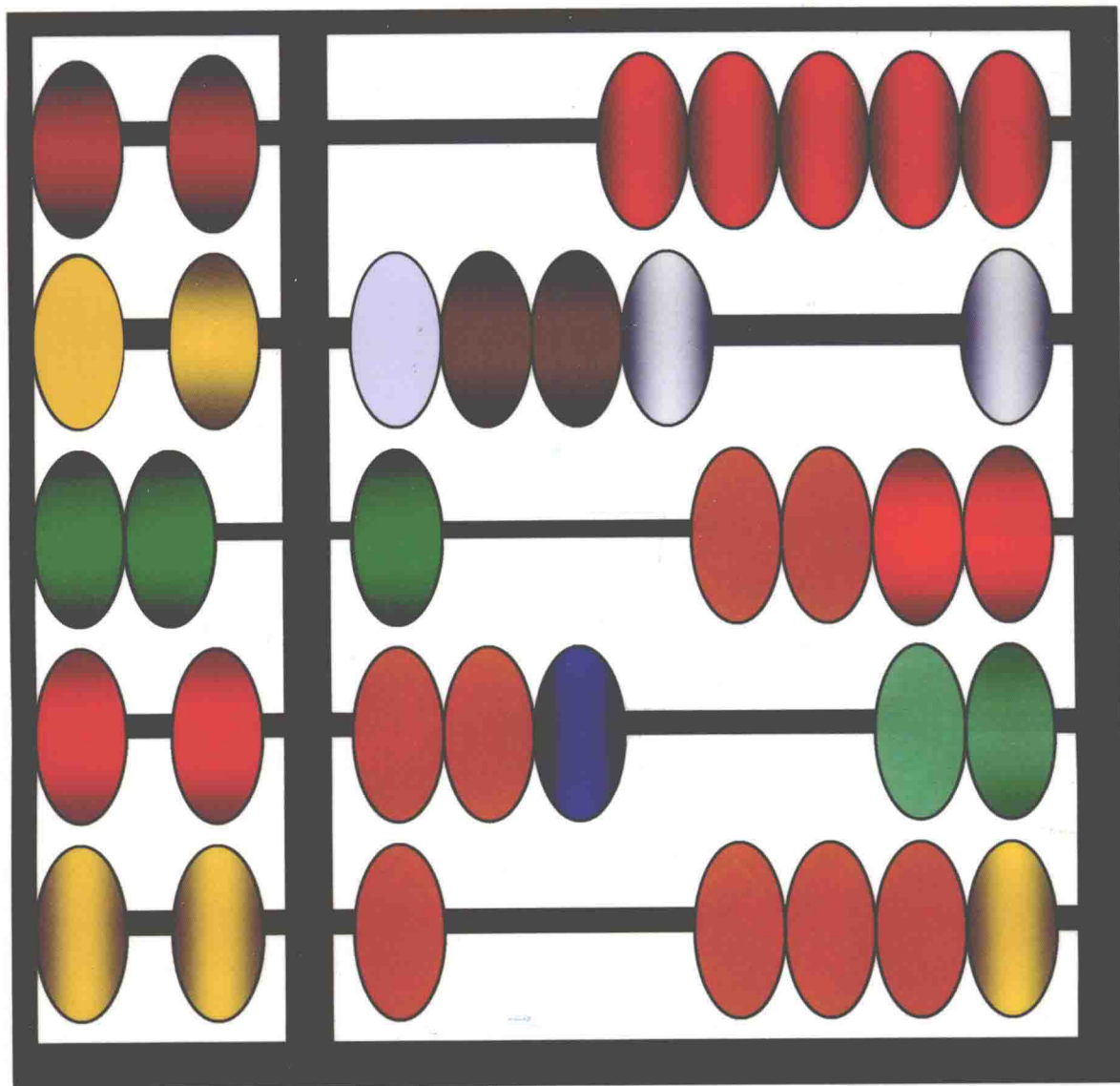


MANAGEMENT ACCOUNTING

(SECOND EDITION)



Michael L. Werner
Kumen H. Jones

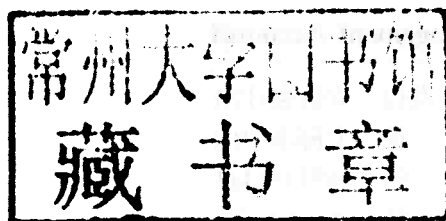


立信会计出版社
LIXIN ACCOUNTING PUBLISHING HOUSE

MANAGEMENT ACCOUNTING

(SECOND EDITION)

Michael L. Werner
Kumen H. Jones



立信会计出版社

LIXIN ACCOUNTING PUBLISHING HOUSE

图书在版编目(CIP)数据

管理会计=Management Accounting:英文/(美)

沃纳(Werner, M. L.), (美)琼斯(Jones, K. H.)编著.

—2版.—上海:立信会计出版社, 2014. 8

ISBN 978-7-5429-4332-3

I. ①管… II. ①沃… ②琼… III. ①管理会计—英文
IV. ①F234.3

中国版本图书馆 CIP 数据核字(2014)第 190051 号

策划编辑 黄成良

责任编辑 黄成良

封面设计 周崇文

Management Accounting (second edition)

出版发行 立信会计出版社

地 址 上海市中山西路 2230 号

邮政编码 200235

电 话 (021)64411389

传 真 (021)64411325

网 址 www.lixinaph.com

电子邮箱 lxaph@sh163.net

网上书店 www.shlx.net

电 话 (021)64411071

经 销 各地新华书店

印 刷 上海锦良印刷厂

开 本 890 毫米×1240 毫米 1/16

印 张 24

字 数 870 千字

版 次 2014 年 8 月第 2 版

印 次 2014 年 8 月第 1 次

印 数 1—2 100

书 号 ISBN 978-7-5429-4332-3/F

定 价 46.00 元

如有印订差错,请与本社联系调换

出版说明

培养学生对财经英语文献的阅读理解能力,使用财经专业英语流畅而地道地交流和表达,能够使用英语从事专业工作,适应纯英语环境下的财经专业工作环境,是财经专业双语教学的目标。要实现此目标,选用合适的教材至关重要。

本书系统而明晰地阐释了管理会计的概念及应用。全书围绕商业活动组织内容,强调商业行为的现实性,兼顾了对管理会计程序的介绍和对决策的强调;应用了大量当今美国知名企业的真实案例来阐述管理会计理论与方法在商业决策中的应用,使许多生涩的专业概念变得通俗易懂,同时将学生置身于真实的决策环境之中,培养学生对知识和技能的实际应用能力。本书结构合理、语言简明、生动而准确,使学生在专业知识和技能的同时,提高运用专业语言进行交流沟通的能力。

本书主编 Michael L. Werner 执教于美国迈尔密大学,是清华大学会计学系客座教授。由其主编的多部财经管理类教材,在美国出版后一直畅销不衰,其中《管理会计》在美国培生教育出版集团出版后被多所大学选为教材。以下的评价反映了本书的特点:

“This is my favorite Management Accounting text today.... I find that the Werner/Jones text is perfect for my class—it provide all the material we need in a text that is easy(and almost fun!)to read.”

—*Make Bettini, University of California-Berkeley*

“The authors have explained the complex subject of ABC overhead allocation with clear and concise examples.”

—*Sally J. Nelsin, Northeast Iowa Community College*

“I enjoyed reading the chapter [on relevant costing]. It takes a step-by-step approach for each example, and the authors did a good job teaching the material.”

—*Cheryl Mitchem, Virginia State University*

“The examples are excellent! The example of IBM quantity discounts (in Chapter 5) clearly shows how costs can change.... The Tree Top Mailbox example (in Chapter 10) is very good. It clearly illustrates difficult concepts.”

—*Olga Quintana, University of Miami*

为了使读者能接触到美国本土教材的精华,本社在引进出版时,保留了原版

的特色,只对本书中的专业词汇加注了中文以帮助读者阅读和理解。

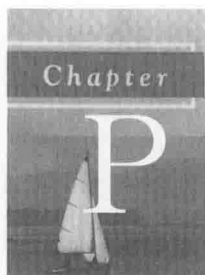
本书适用于高等院校财经专业教学,也可作为 MBA 教材以及财经管理人员和自学者的参考用书。

本书在出版过程中得到了多方的支持和帮助。清华大学的陈晓教授、上海立信会计学院的邵瑞庆教授、上海理工大学的徐福缘教授、华东理工大学的耿悦彬先生和奚国平教授在本书的引进和出版过程中给予了大力支持。华东理工大学张爱民教授、上海立信会计学院的曹惠民教授、邵军教授、肖成民副教授、柴庆孚讲师对本书的出版也提出了很多宝贵的建议和意见,谨致以衷心的感谢和敬意。

本书为教师提供教学 PPT 和习题答案、考试题库等教学资源,请任课老师完成书后的表格后向出版社索取。本社将不定期地举行任课教师与作者的交流互动活动,使用本书的教师将会有机会获得邀请。

立信会计出版社

2014 年 8 月



REFACE

Businesspeople must be prepared to perform tasks that only people can perform; in particular, they must be able to communicate, to think, and to make solid, well-informed decisions. Decision making is the critical skill in today's business world, and *Management Accounting* helps students to better use accounting information to improve their decision making skills.

This text provides a solid management accounting foundation within the context of business and business decisions. Readers will explore accounting information's role in the decision making process and learn how to use the accounting information typically provided to company managers. Seeing how accounting information can be used to make better business decisions will benefit all students, regardless of their major course of study or chosen career.

This text is purposely written so students will find it easy to read and understand. The conversational tone of the text and the logical presentation of topics all contribute to the ability of this text to meet that goal. In addition, we have included the exhibits necessary to get important points across, but we intentionally have not included an array of glitz and graphics that can break up the flow and distract student attention. Generally, we have not segregated material into special presentation boxes that might be skipped by students attempting to focus on the most relevant points. All of the points of interest and examples we present are woven into the body of the text.

❖ SUPPORT FOR THE INTERACTIVE CLASSROOM

We believe this text provides tools to actively involve students in their learning processes. Several features are particularly important in developing a classroom atmosphere in which students share ideas, ask questions, and relate their learning to the world around them. For example, throughout each chapter of the text, you will find Discussion Questions (DQs) that challenge students to reach beyond the surface of the written text to determine answers. Far from typical review questions, for which the students can scan a few pages of the text to locate an answer, many of the DQs provide relevant learning by relating students' personal experiences to the knowledge they gain through the text. The DQs provide a variety of classroom experiences:

- Many DQs provide the basis for classroom discussions, requiring students to think about issues and formulate or defend their opinions.
- Some DQs are springboards for group assignments (in or out of the classroom) to put cooperative learning into practice.
- DQs may be assigned as individual writing assignments to allow students to practice and develop their writing skills.
- Combining individually written DQ responses with follow-up group discussions can spark lively debate!
- Having students keep a journal of their responses to all DQs (regardless of whether they are used in another way) encourages contemplation of accounting concepts.

The DQs are designed to emphasize important points that students may skim across in their initial reading. Even if they are not formally part of the required work for your course, students will gain a greater understanding of the concepts discussed when they take time to consider each question as part of the text.

❖ FLEXIBILITY REGARDING RECORDING PROCEDURES (DEBIT AND CREDIT ENTRIES)

Aside from its support for the interactive classroom, another distinction of this text is the flexibility it provides instructors regarding the coverage of recording procedures (debit and credit entries). Coverage of recording procedures differs from school to school. Some schools choose to have all students learn basic accounting procedures; others require only accounting majors to acquire these skills. Our text offers institutions the flexibility to cover accounting procedures to a significant degree, to cover just the basics, or to omit the coverage of accounting procedures entirely. This is true because we do not use debits and credits or journal entries to demonstrate or explain characteristics and uses of accounting information. However, the recording process is covered in detail where appropriate, specifically in appendices to Chapters 2, 3, and 10. For those institutions that would like to include accounting procedures in their introductory accounting curriculum, these chapter appendices demonstrate most of the basic management accounting journal entries including the journal entries for standard costing. Institutions that desire to omit recording procedures entirely would simply skip these appendices from their course coverage.

❖ ASSIGNMENT MATERIAL

The text includes an array of assignment material including the following:

- *Discussion Questions.* As we have already mentioned, throughout each chapter of the text, you will find Discussion Questions (DQs) that challenge students to reach beyond the text material to determine answers.
- *Review the Facts.* Students can use these basic, definitional questions to review the key points of each chapter. The questions are in a sequence reflecting the coverage of topics in the chapter.
- *Apply What You Have Learned.* Many of these end-of-chapter assignments can be used as the basis for classroom discussions; they will also work well as group assignments. For many problems, there are more than one version—one to use as an example in class and one for homework.

❖ TOPICS AND SEQUENCE OF COVERAGE

We have carefully considered the inclusion or exclusion of topics and feel that our coverage has resulted in a balanced text consistent with our pedagogical goals of building a foundation that supports effective student learning. We will continue to gather information regarding topical coverage to make future editions even better. We feel that this text covers those topics that every accounting student should leave the course understanding well. For example, in the cost behavior chapter (Chapter 5), instead of demonstrating the calculations for regression analysis, we demonstrate how to use **Microsoft Excel** to prepare cost behavior charts and insert trend lines. This allows us to focus on the usefulness of cost behavior rather than on tedious number crunching, which, in practice, is generally done by a computer.

We have carefully chosen the sequence of coverage so the material flows from one topic to the next. Not only does this make accounting easier to teach, but it is more understandable as well. We have developed a logical flow of topics so that each chapter builds on what the student has already learned. Students can easily understand how the topics fit together logically and how they are used together to make good decisions. Moreover, students can see that accounting and the information it provides is not merely something that exists unto itself, but rather it is something developed in response to the needs of economic decision makers.

❖ CHAPTER HIGHLIGHTS

Chapter 1 explores management accounting, its environment and future. The chapter introduces management accounting and contrasts it with financial accounting. It discusses where management accounting fits in a company as well as the origin and evolution of management

accounting in the US and China and the challenges and trends that lie ahead.

Chapter 2 explores various cost classifications and concepts. The chapter covers product costs and period costs for merchandisers and manufacturers as well as cost of services and period costs for service firms. The chapter discusses direct material, direct labor, and manufacturing overhead as well as the various manufacturing inventories (raw materials, work-in-process, finished goods). The chapter also provides a comparison of merchandising, manufacturing, and service costs. The chapter appendix covers the accounting procedures (journal entries) for simple manufacturing environments where manufacturing overhead is recorded directly in work-in-process inventory. (Overhead allocation techniques and journals entries are covered in Chapter 3.)

Chapter 3 describes how companies determine the cost of their products. The chapter covers job order costing and introduces overhead allocation. The chapter also covers process costing in a simplified presentation that makes process costing basics very understandable. For example, only the average cost flow method is presented, and the presentation assumes that the percentage complete for direct materials, direct labor, and manufacturing overhead is the same. The chapter appendix covers accounting procedures including journal entries for manufacturing overhead allocation.

Chapter 4 covers cost allocation and the use of activity-based costing (ABC). The chapter takes a closer look at overhead allocation by further examining traditional overhead allocation and introducing ABC. Basic concepts of ABC are explored including its implementation, ABC calculations, and benefits and drawbacks of using ABC.

Chapter 5 covers cost behavior including fixed costs, variable costs, and the relevant range. The chapter also introduces the concept of mixed cost and includes an easy-to-understand presentation of techniques to separate mixed costs into fixed and variable components. Step-by-step calculations are presented for the scatter graph and high-low methods. Regression analysis is discussed and the chapter includes a step-by-step presentation of scatter graphing using *Microsoft* Excel's Chart Wizard.

Chapter 6 explores business decisions using cost behavior. The contribution income statement and cost-volume-profit (CVP) analysis for single-product and multiple-product situations are introduced and explored. The chapter includes step-by-step presentations of breakeven and the calculations to determine sales needed to meet target profit. The chapter also introduces a CVP graph and sensitivity analysis. Income statements under variable costing and absorption costing are also explored.

Chapter 7 explores the use of relevant information for decision making. The chapter describes relevant information, costs and benefits and their characteristics. Qualitative and quantitative considerations are discussed. The chapter demonstrates the importance of relevant information with a series of examples including equipment replacement, special orders, outsourcing—the make or buy decision, and discontinuance of business segments.

Chapter 8 introduces various aspects of business planning and explores capital budget and evaluating capital expenditures. The chapter introduces the business planning process and setting company goals, the strategic plan, the capital budget, and the operating budget. Then, it explores the capital budget, the cost of capital and the evaluation of potential capital projects. The chapter demonstrates discounted cash flow capital budgeting decision methods such as net present value and internal rate of return using both financial tables and a financial calculator. Thus, the chapter supports instructors demonstrating concepts using financial tables, or a financial calculator, or both. The chapter also demonstrates non-discounted cash flow capital budgeting decision methods, including payback period and accounting rate of return. Appendix A to this chapter demonstrates detailed future value and present value calculations using financial tables. Appendix B demonstrates using a financial calculator for future and present value calculation.

Chapter 9 explores the operating budget. The chapter is presented in two parts. Part I presents an overview of the operating budget including the benefits of budgeting, the contents of the operating budget (it also introduces various operating budgets), and approaches to budgeting. Part B covers preparing and using the operating budget. It includes step-by-step presentation of preparation of 8 budgets from the sales budget to budgeted financial statements. Flexible budgeting is covered near the end of the chapter.

Chapter 10 explores standard costing. The chapter explains why standard costing is used, discusses ideal versus practical standards, and describes some of the problems with standard costing. The chapter demonstrates basic standard costing for a manufacturer using an easy-to-understand example based on a small student-owned company manufacturing wood mailboxes in a rented garage. Calculations are shown for the direct material variances, direct labor variances, variable manufacturing overhead variances, and fixed manufacturing overhead variances. The chapter concludes with a look at variance analysis and using variances to manage by exception and includes an appendix that demonstrates the journal entries used in standard costing.

Chapter 11 covers various aspects of evaluating performance. Business segments and the segmented income statement are presented and the pitfalls of allocating common fixed costs are discussed. The chapter discusses the basics of service department cost allocation and activity-based service department cost allocation. The chapter discusses revenue centers, cost centers, profit centers, and investment centers. Return on investment, residual income and economic value added (EVA™) are discussed and demonstrated. The chapter also briefly introduces a number of cutting edge management and management accounting developments including:

- ◆ The Balanced Scorecard
- ◆ E-commerce
- ◆ Process Management
- ◆ Enterprise Information Systems
- ◆ Six-Sigma
- ◆ Theory of Constraints
- ◆ Lean Manufacturing

❖ OTHER IMPORTANT FEATURES OF THIS TEXT

In addition to the Discussion Questions, our text offers these features that will enhance the learning process:

- ◆ *Learning Objectives.* Previewing each chapter with these objectives allows students to see what direction the chapter is taking, which makes the journey through the material a bit easier.
- ◆ *Marginal Glossary.* Students often find the process of learning accounting terminology to be a challenge. As each new key word is introduced in the text, it is shown in bold and also defined in the margin. This feature offers students an easy way to review the key terms and locate their introduction in the text.
- ◆ *Summary.* This concise summary of each chapter provides an overview of the main points, but is in no way a substitute for reading the chapter.
- ◆ *Key Terms.* At the end of each chapter, a list of the new key words directs students to the page on which the key word or phrase was introduced.
- ◆ *Review the Facts.* Students can use these basic, definitional questions to review the key points of each chapter. The questions are in a sequence reflecting the coverage of topics in the chapter.
- ◆ *Apply What You Have Learned.* Our end-of-chapter assignment materials include a mix of traditional types of homework problems and innovative assignments requiring critical thinking and writing. Many of the requirements can be used as the basis for classroom discus-

sions. You will find matching problems, short essay questions, and calculations. Assignments dealing directly with the use of financial statements are also included. Many of these applications also work well as group assignments. There is more than one version of many problems—one to use as an example in class and one for homework.

- ◆ *Glossary of Accounting Terms*. An alphabetical listing of important accounting terms, including all of the key terms and more.
- ◆ *Company Index*. A listing of the companies used in the text as examples or in assignment material.

❖ SUPPLEMENTS FOR USE BY THE INSTRUCTOR

Additional support for your efforts in the classroom is provided by our group of supplements.

- **Solutions Manual**, Solutions for all end-of-chapter material.
- **Test Item File**, A ready-to-use bank of testing material. Each chapter includes a variety of types of questions, including true/false, multiple choice, essay and critical thinking problems. Intended for ease of use, each question is linked to chapter objectives, and also provides suggested difficulty level and reference to text pages where answers can be found.
- **PowerPoint Presentations**, Complete PowerPoint presentations for each chapter. Instructors may use each presentation as is or customize the slides to create a tailor-made slide show. Each presentation allows instructors to offer a more interactive experience using colorful graphics, outlines of chapter material, and graphical explanations of difficult topics.

❖ ACKNOWLEDGEMENTS

This project would not have been possible without support and encouragement from a number of people from Li Xin Accounting Publishing House.

We are most grateful to executive editor Huang Cheng Gen for his hard work, patience, determination, and faith in the project.

We also thank chief editor Sun Shi Pin, Executive Chief Editor Dou Han Xiu, and executive chief editor Lu Sheng Qiang for their support and help in making this project possible.

We thank Vice-President Shao Rui Qing, Professor Cao Hui Min and Professor Shao Jun of Shanghai Li Xin University of Commerce's for their support and help with this project.

We would like to thank our dear friends and colleagues, Professor Zhang Ai Min, Vice-President Tu Shan Zhong and Professor Xi Guo Ping from East China University of Science and Technology (ECUST) for their valuable guidance, assistance and suggestions throughout the course of this project. Without their valuable help and consideration, this project would not have been possible.

We would also like to thank Professor Chai Qing Fu from Shanghai Li Xin University of Commerce for his guidance regarding the selection of topics and depth of coverage for each chapter of express the text.

We deep gratitude to Mr. Geng Yue Bin from East China University of Science and Technology for his tireless efforts and help to bring all the players together and to coordinate the diverse efforts necessary to bring this project to completion.

We express our thanks to Steve Speace for his copy editing and other editorial help and guidance.

Michael Werner would like to thank Vice-President Xu Fu Yuan and Dean Wang Heng Shan, University of Shanghai for Science and Technology, Business School for their help, guidance, and doctoral research collaboration which aided in the development of this text.

I would like to thank Professor Chen Xiao, Chairman of the Department of Accounting, School of Economics and Management (SEM), Tsinghua University for his help, encouragement, guidance, and friendship over the years. I thank Professor Song Yan Heng, and Professor Wang Kun of Tsinghua University for their friendship, encouragement and advice. I would also like to thank my many friends at Tsinghua University, Department of Accounting for their friendship and support.

I thank Professor Cui Guo Wen, Tsinghua University COACE for his help and support. I thank Mr. Lin Zhao Guang, Tsinghua University COACE for his friendship and encouragement over the years. I also thank Jonh Mc Vay, Tsinghua University COACE for his friend-

ship, advice and encouragement.

I am also grateful for the inspiration and encouragement of Sherry Shu Zhang and Tom and Cathy Norris. We also thank Thomas Greco of Manta Racing; Bruce Perlmutter of the Perlmutter Printing Company; and Stacy Sexton who contributed editorial help and assignment material.

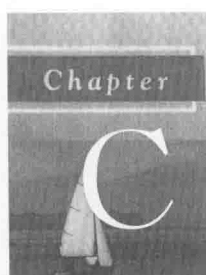
I thank my colleague friends and for their intellectual contributions and friendship that have helped to enrich this book including Hou Yong, University of North Dakota and Thomas R. Robinson, Oscar J. Holzmann, Paul Munter, Frank Collins, Olga Qumtana, Mark Friedman, Kay Tatum, University of Miami.

We both thank Kathy Terrell and Robert Terrell, University of Central Oklahoma for their contributions, support and friendship. We thank Professor Hou Yong, University of North Dakota for his friendship, help and support. We would also like to thank the following reviewers for their recommendations on prior editions or our work: Mark E. Bettini, University of California-Berkeley; Joseph H. Bylinski, University of North Carolina at Chapel Hill; Cherie Francisco, Simpson College; Cheryl Mitchem, Virginia State University; Sally J. Nelson, Northeast Iowa Community College; Michael R. Palma, Gwinnett Technical Institute; S. E. C. Purvis, California State University-San Bernardino; Olga Quintana, University of Miami; Nanette Sanders-Cobb, Craven Community College; and Ann E. Selk, University of Wisconsin-Green Bay. Other colleagues who have provided suggestions as adopters, as focus group members, or as reviewers of previous editions of our material: Jeffrey J. Archambault, Clarkson University; Lorren H. Beavers, University of Central Oklahoma; Roger K. Doost, Clemson University; Suzanne Elsea, Anheuser-Busch Corporation; Jessica J. Frazier, Eastern Kentucky University; Edward S. Goodhart, Shippensburg University; Bambi A. Hora, University of Central Oklahoma; Steven D. Hunter, Western Baptist College; Thomas A. Jones; Raymond L. Larson, Appalachian State University; Mary D. Maury, St. John's University; Alfonso R. Ododo, Niagara University; Charles J. Pineno, Clarion University; Joanne Sheridan, Montana State University-Billings; Sheldon R. Smith, Brigham Young University-Hawaii; Patricia M. Somerville, Saint Mary's University; Carolyn Streuly; Marilyn T. Zarzeski, University of Central Florida.

We believe the approach we have taken will help students see how accounting fits into the "big picture of business". We hope students will find that what they learn from this text and in their accounting class relates directly to them, regardless of their careerpath. Please feel free to contact us at mwerner@miami.edu with your comments or suggestions.

Michael L. Werner
University of Miami

Kumen H. Jones
Arizona State University, Retired



Contents

CHAPTER 1 Management Accounting: Its Environment and Future 1

What Is Management Accounting?	2
Institute of Management Accounting (IMA)	3
<i>Certified Management Accountant (CMA®)—The Gold Standard</i>	3
Ethical Standards for Management Accountants	3
International Federation of Accountants (IFAC)	5
Sarbanes-Oxley	5
Contrasting Financial and Management Accounting	5
Accounting Rules	6
Level of Detail	6
Timeliness	7
Future Orientation	7
Where Accounting Fits in a Company	8
The Origin and Evolution of Management Accounting in the West	9
Emergence of Permanent Employees	9
The Industrial Revolution	10
Scientific Management	10
Diversification	11
Management Accounting in China	11
Challenges and Trends in Management Accounting	12
Consumers of Management Accounting Information	13
Summary	13
Glossary of Key Terms	14
Review the Facts	15
Apply What You Have Learned	15

CHAPTER 2 Classifying Costs 17

Major Cost Classifications	18
Assigning Costs to Cost Objects	18
Product Cost	19
Period Cost	19
<i>Selling Cost</i>	19
<i>Administrative Cost</i>	20
Comparing Product and Period Costs	20
Product Cost Identification For Merchandising Firms	20
The Flow of Product Cost—Merchandising Company	21
Cost of Goods Sold	21
Product Cost Identification for Manufacturing Firms	22
Prime Cost and Conversion Cost	23
Inventory Classifications	23
<i>Raw Materials Inventory</i>	23
<i>Work-in-process Inventory</i>	24
<i>Finished Goods Inventory</i>	24
Direct Material	24

Management Accounting

Direct Labor	25
Manufacturing Overhead	25
<i>Indirect Material</i>	26
<i>Indirect Labor</i>	26
<i>Other Manufacturing Overhead Costs</i>	26
The Flow of Product Cost—Manufacturing Company	26
Cost of Goods Manufactured	29
Product Cost Identification for Service Firms	31
Materials	32
Labor	32
Overhead or Indirect Service Costs	32
The Flow of Service Cost—Service Company	33
Cost of Services	33
Hybrid Firms	34
Merchandising, Manufacturing, and Service—a Comparison	34
Summary	36
Appendix—Recording Manufacturing Costs	38
Appendix Summary	41
Glossary of Key Terms	41
Review the Facts	42
Apply What You Have Learned	42
CHAPTER 3 Determining Costs of Products	54
Accumulating Product Cost—Cost Accounting	54
Units of Product As Cost Objects	55
Product Costing Methods	55
Job Order Costing Basics	55
Process Costing Basics	56
Job Order Costing	56
Documentation Relating to Job Order Costing	57
<i>Cost Information for Raw Material</i>	57
<i>Cost Information for Direct Labor</i>	61
Manufacturing Overhead	61
Over or Under Applied Manufacturing Overhead	65
Process Costing	65
Equivalent Units	66
Cost Per Equivalent Unit	66
Cost of Ending Work-in-Process Inventory	67
Cost of Completed Units	67
Summary	68
Appendix—Recording Manufacturing Costs	70
Appendix Summary	73
Glossary of Key Terms	73
Review the Facts	74
Apply What You Have Learned	74
CHAPTER 4 Cost Allocation and Activity Based Costing	82
Traditional Manufacturing Overhead Allocation	84
Activity-based Costing for Manufacturing Overhead Allocation	86
Determining Product Cost Using ABC	86
Comparison of Traditional and ABC Overhead Allocation	92
Product Cost Accuracy	92
<i>When Does ABC Result in More Accurate Product Costs?</i>	92

Reducing Cost by Using ABC	93
<i>Closer Cost Scrutiny</i>	93
<i>Smaller Cost Pools Make it Difficult to Hide Cost</i>	93
<i>Cost Control by Controlling the Allocation Base</i>	93
Added Complexity and Cost of ABC	94
ABC and Job Order Costing—Another Look at Manta Power Boats	94
Summary	96
<i>Glossary of Key Terms</i>	97
<i>Review the Facts</i>	98
<i>Apply What You Have Learned</i>	98

CHAPTER 5 Cost Behavior 103

Common Cost Behavior Patterns	104
Fixed Costs	104
Variable Costs	104
Comparison of Cost Behaviors	104
Determining Total Cost	106
Relevant Range	107
Mixed Costs	108
Identifying the Fixed and Variable Elements of a Mixed Cost	109
The Engineering Approach	109
Scatter Graphing	110
The High-Low Method	116
Regression Analysis	118
Microsoft Excel—Preparing an Excel Scatter Graph	119
Summary	121
<i>Glossary of Key Terms</i>	122
<i>Review the Facts</i>	122
<i>Apply What You Have Learned</i>	122

CHAPTER 6 Business Decisions Using Cost Behavior 130

The Contribution Income Statement	131
Absorption and Variable Costing	131
Purpose of the Contribution Income Statement	132
Predicting Profits Using the Contribution Income Statement	134
Cost-Volume-Profit Analysis	135
Break-Even	136
Determining Sales Required to Meet a Profit Objective	138
Cost-Volume-Profit Graph	140
Sensitivity Analysis	141
Change in Selling Price	141
Change in Variable Cost and Fixed Cost	142
Multiple Products and CVP	144
Break-Even Point in a Multiproduct Situation	144
Determining Required Sales in a Multiproduct Situation	145
CVP Assumptions	146
Absorption and Variable Costing—a Closer Look	146
Summary	152
<i>Glossary of Key Terms</i>	153
<i>Review the Facts</i>	153
<i>Apply What You Have Learned</i>	154

CHAPTER 7 Making Decisions Using Relevant Information 161

Relevant Costs and Benefits	162
Equipment Replacement	163
Gather All Costs and Benefits Associated with the Decision	164
Determine the Relevant Cost and Benefit of Each Alternative	164
<i>Relevant Cost and Benefit of the Old Computer System</i>	165
<i>Relevant Costs and Benefits of the New Computer System</i>	165
Compare the Relevant Information and Select an Alternative	165
The Concept of an Incremental Cost or Benefit	166
Interest—the Time Value of Money	167
Special Orders	167
Gather All Costs and Benefits Associated with the Decision	167
Determine the Relevant Cost and Benefit of Each Alternative	168
Compare the Relevant Costs and Benefits and Select an Alternative	168
Outsourcing: The Make or Buy Decision	169
Gather All Costs Associated with the Decision	170
Determine the Relevant Cost of Each Alternative	170
Compare the Relevant Costs and Select an Alternative	170
Considering Opportunity Costs	172
Discontinuing a Business Segment	173
Determine the Relevant Cost of Each Alternative	174
Special Cost Considerations for Common Fixed Costs	175
Summary	176
Glossary of Key Terms	177
Review the Facts	177
Apply What You Have Learned	177

CHAPTER 8 The Capital Budget: Evaluating Capital Expenditures 186

The Business Planning Process	187
The Mission—Overall Company Goals; The Why	187
Nonfinancial Goals	187
Financial Goals	188
Goal Awareness	188
Core Values; What the Company Stands For	189
Vision; The Hope for the Future	189
Strategy; The Business Plan of Attack	189
The Strategic Plan; The What	190
The Capital Budget; The How	191
The Operating Budget; The Who	191
The Capital Budget: What is it?	192
Capitalizing Assets	192
Capitalization Amount	192
Characteristics of Capital Projects	192
The Cost of Capital and the Concept of Scarce Resources	193
Weighted Average Cost of Capital	194
Scarce Resources	196
Evaluating Potential Capital Projects	196
Identifying Possible Capital Projects	196
Determining Relevant Cash Flows for Alternative Projects	197
Selecting a Method of Evaluating the Alternatives	197
Selecting Capital Budgeting Projects	197
Capital Budgeting Decision Methods	198
Discounted Cash Flow Methods	198
<i>Net Present Value</i>	198
<i>Net Present Value Calculations with Uneven Cash Flows</i>	200

<i>Profitability Index</i>	202
<i>Internal Rate of Return</i>	203
Nondiscounted Cash Flow Methods	205
<i>Payback Period</i>	205
<i>Accounting Rate of Return</i>	206
Factors Leading to Poor Capital Project Selection	207
Natural Optimism	207
Capital Budgeting Games	207
Summary	207
Appendix A: The Time Value of Money	209
The Time Value of Money—The Concept of Interest	209
Future Value	209
<i>Future Value of a Single Sum</i>	210
<i>Future Value of an Annuity</i>	210
Present Value (Discounting)	210
<i>Present Value of a Single Sum</i>	210
<i>Present Value of an Annuity</i>	215
Appendix B: Using a Financial Calculator	217
Calculator Differences	217
Future Value of a Single Sum	218
Future Value of an Annuity	218
Present Value of a Single Sum	218
Present Value of an Annuity	219
Common Uses of a Financial Calculator	219
<i>Auto Loans</i>	220
<i>Home Mortgages</i>	220
Glossary of Key Terms	221
Review the Facts	222
Apply What You Have Learned	223

CHAPTER 9 The Operating Budget 232

Part One: An Overview of the Operating Budget 233

The Operating Budget: What is it?	233
Benefits of Budgeting	233
Serves as a Guide	233
Assists in Resource Allocation	234
Fosters Communication and Coordination	235
Establishes Performance Standards	235
Contents of the Operating Budget	236
Sales Budget	236
Production or Purchases Budget	236
Cost of Goods Sold or Cost of Services Budget	236
Selling and Administrative Expense Budget	237
Budgeted Income Statement	237
Cash Budget	237
Budgeted Balance Sheet	237
Budgeted Statement of Cash Flows	237
Interrelationship among the Budgets	238
Different Approaches to Budgeting	239
Perpetual Budgeting	239
Incremental Budgeting	240
Zero-Based Budgeting	240
<i>Top-Down Versus Bottom-Up Budgeting</i>	240
<i>Top-Down Budgeting</i>	240
Bottom-Up Budgeting	241

Imposed Versus Participative Budgets	242
The Sales Forecast	243
Cornerstone and Keystone of Budgeting	243
Factors Affecting the Accuracy of the Sales Forecast	245
Part Two: Preparing and Using the Operating Budget	245
Preparing a Master Operating Budget	245
Budgeted Income Statement	246
Sales Budget	246
Cost of Goods Sold Budget	247
Selling and Administrative Expense Budget	247
Building the Budgeted Income Statement	248
Budgeted Balance Sheet	249
Purchases Budget	250
Cash Budget	251
Cash Receipts Schedule	251
Cash Payments Schedule	253
Building the Cash Budget	254
Building the Budgeted Balance Sheet	255
Budgeted Statement of Cash Flows	259
The Static Budget Performance Report	261
The Flexible Budget	262
Preparing the Flexible Budget	263
The Flexible Budget Performance Report	264
Using (and Misusing) the Operating Budget	267
Summary	268
Glossary of Key Terms	269
Review the Facts	270
Apply What You Have Learned	270
 CHAPTER 10 Standard Costing	 280
Why is Standard Costing Used?	281
Standards—a Closer Look	282
Quantity and Price Standards	282
Ideal versus Practical Standards	282
Ideal Standards	282
Practical Standards	282
Setting Standards	283
Problems with Standard Costing	284
Who Uses Standard Costing?	284
Basic Standard Costing for a Manufacturer	285
Setting Direct Material Standards	286
Direct Material Quantity Standard	286
Direct Material Price Standard	286
Setting Direct Labor Standards	288
Direct Labor Efficiency Standard	288
Direct Labor Rate Standard	288
Setting Variable Manufacturing Overhead Standards	288
The Standard Variable Manufacturing Overhead Rate	289
Setting Fixed Manufacturing Overhead Standards	289
Standard Fixed Manufacturing Overhead Rate	290
Total Standard Cost Per Unit	290
Variance Analysis	291
Direct Materials Variances	291
Direct Material Quantity Variance	291