

# *Preface*

This book is designed to provide an introductory level of instruction to students of health care management who are studying management accounting for the first time. It offers a user-oriented approach to management accounting concepts and techniques that will help individuals prepare for work in an environment where an understanding of management accounting is important to success.

Management accounting is concerned primarily with the information needs of an organization's managers. In general these needs arise in three areas: full cost accounting, differential cost accounting, and responsibility accounting. Exhibit 1 on the next page lists this book's specific learning objectives in each of these three areas.

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## **TO THE STUDENT**

The working assumption of this book is that readers have no prior knowledge of management accounting. Students completing the book successfully will be knowledgeable about both the uses and the limitations of management accounting information. To accomplish this, the book places minimal emphasis on the technical aspects of preparing accounting information, covering only those technical matters that are essential to understanding the information. Most of the material focuses on the meaning and utility of accounting information for managers and other users.

In general the learning process consists of developing new skills, which can be acquired only by practice. Learning management accounting is a bit like learning about a new city. If someone takes you on drives around the city, you will probably learn very little about where landmarks are located and how to get from one place to another. If you drive by yourself, however, you will learn a great deal about the city—taking in far more on a single trip than you would learn in dozens of trips as a passenger.

In this book you are the driver rather than the passenger. You will practice (and learn) accounting while you read each chapter, rather than after you finish it. You will have opportunities to prepare answers to management accounting problems that appear throughout each chapter and to analyze one or more practice case studies at the end of the chapter.

### **Minimal Memorization**

Mastering management accounting requires learning some analytical techniques that build on each other. Although most students find management accounting intuitively understandable, the material cannot be learned by thinking “deep thoughts,” so this book guides you as you work with the concepts and techniques so you can see how

## Exhibit 1 Learning Objectives for This Book

Upon completing this book, you should know

### Full Cost Accounting

- The meaning of such terms as *cost object*, *cost center*, *direct* and *indirect costs*, *overhead*, *cost allocation methods*, and *cost systems*
- The way costs can be allocated to determine the cost of a particular product or service
- The distinction between *production* (or *mission*) *centers* and *service centers*
- The nature of the managerial choices inherent in a full cost accounting system
- The distinction between *overhead rates* and *overhead variances*, including predetermined overhead rates
- The distinction between *absorption costing* and *variable costing*
- The concepts of *activity-based costing* (ABC) and *cost drivers*, including second-stage cost drivers

### Differential Cost Accounting

- The rationale for the statement “different costs are used for different purposes”
- The distinction between *full costs* and *differential costs*, and when each should be used
- The nature of the factors that influence changes in cost, including the distinctions among *fixed*, *variable*, *step-function*, and *semivariable costs*
- The nature of *alternative choice decision making*, and the three major types of alternative choice decisions that most organizations make
- The concepts of *unit contribution margin* and *total contribution*, and their roles in alternative choice decision making
- The technique of *cost-volume-profit analysis*, how to prepare such an analysis, and its uses and limitations

### Responsibility Accounting

- The definition of a *responsibility center*, the different responsibility center options, and the basis for choosing the most appropriate type of center
- The definition of a *transfer price*, and the role of transfer prices in a management control system
- The phases of the *management control process*, and the characteristics of each phase
- The key elements in the budget formulation process, and the relationship between budgeting and responsibility centers
- The meaning of the term *flexible budget*, and the use of this budget in a management control system
- The technique of *variance analysis*, the different types of variances that can occur, the uses and limitations of variance analysis, and the relationship between variance analysis and management reporting
- Some of the issues involved in measuring nonfinancial (or program) performance

they are developed and applied. The discussion in each chapter assumes that you understand the material covered in the prior chapters, so it is important to work through the chapters in order.

## Interactive Learning

As mentioned, a distinctive feature of this book is its interactive approach to the learning process. You are regularly asked to stop reading and work out the solution to a problem, a situation derived from the experiences of real organizations.

To make this interactive learning process work well for you, remember that you are the driver for this process, and you must stay in the driver’s seat at all times. Answer each problem to the best of your ability before looking at the answer provided in the text, and analyze each practice case thoroughly before looking at a solution.

Shortcutting this learning process will put you back in the passenger's seat, observing more than learning.


The reasoning in a provided answer can be quite seductive. If you look at a provided solution before working out your own answer, you will generally find yourself in agreement with it, saying something like, "That's how I would have done it if I had done it." But you will be unlikely to have learned *why* it is so obviously the right answer. Actually working through a problem, arriving at a solution, and then comparing it to the provided solution will give you an understanding of the logic behind the accounting concept at issue and allow you to apply that concept successfully to real-life problems later.

In short, to learn management accounting, you must struggle through the process of arriving at solutions yourself, gaining understanding from both your successes and your mistakes. Prepare for this learning process by having a pencil, a calculator, and a supply of paper (for making calculations and writing out your answers) next to you while you are reading each chapter. A problem begins with a line across the page, like the one that follows.

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 **Problem** The problem statement is indicated with a pencil icon, as shown here. It is followed by another line, as shown below.

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 **Answer** The answer to the problem, in a sans serif typeface, immediately follows this second line and ends with a third line.

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Use a sheet of blank paper to cover the answer as you work out the solution to each problem. Prepare your solution neatly enough that you can compare it and your associated reasoning to the answer provided. If your comparison shows that your solution is right, continue reading. If you have an incorrect answer, spend as much time as you need to figure out where you went wrong. This may require rereading the section of the chapter immediately preceding the problem.

## Short Chapters

The chapters in this book are relatively short so that you can take your time reading them and working your way through their interactive portions. Completing a chapter could take several hours, so it's normal to feel that you are working slowly.

You should not try to cram the learning process into less time, because you need to digest the material as you go along. If you believe you already understand the material in a particular section and therefore do not need to read that section, prepare solutions to the problems in the section to verify your understanding.

## Practice Case Studies

In addition to solving the problems contained in the body of each chapter, you will also be asked to prepare an analysis of one or more practice case studies at the end of each chapter. Solutions to these practice cases are contained in the Appendix at the end of the book.

As with the problems, you should attempt to analyze the practice cases to the best of your ability before looking at the solutions. Each case covers some of the concepts discussed in the chapter and thus will give you an opportunity to test your knowledge of the chapter's content.

In short, engaging in the interactive activities in each chapter is a critical aspect of the learning process. Assimilating the material thoroughly is key to avoiding frustration with the concepts of management accounting. Thus, when you are asked to write out an answer to a problem, take the time to do so before reading further. You will occasionally be tempted to shortcut this feature of the book; please do not succumb to temptation.

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## TO THE STUDENT AND THE INSTRUCTOR

This is a nontraditional text in five important respects: user orientation, interactive learning process, length, organizational focus, and emphasis on the case method of instruction.

### User Orientation

This book, overall, presents a practical, user orientation; however, accounting details are discussed to the extent the reader needs them to understand the concepts and techniques used in *most* organizations. In general the text does not cover exceptions to the rules or some of the possible variations on each traditional theme. Of course the instructor may discuss these matters in class if he or she wishes to do so, supplementing the text, where necessary, with additional readings or exercises.

### Interactive Learning Process

The idea behind the problems students are asked to solve in each chapter is to shorten the *feedback loops* in the learning process. Rather than answering questions or analyzing problems only at the end of each chapter, students can apply what they have learned about a topic immediately following the discussion of that topic. When the discussion of a topic is lengthy, problems may be presented during that discussion as well.

Some students may be tempted to shortcut this process, especially toward the end of the course. The instructor may need to remind the class at regular intervals of the importance of continuing the interactive learning process.

### Length

This book is only eight chapters long. It is well suited for a half-semester, graduate-level course, where, on average, a single chapter can be covered in one week. Most of the chapters contain enough substance, however, that each could be covered at a more reasonable pace over two weeks, and thus the book is especially suitable for a one-semester course. Over a full semester, students will have more time to digest the material in each chapter, and the instructor will be able to supplement the text with additional readings.

## Organizational Focus

Many texts use manufacturing examples to illustrate accounting concepts and principles. This book uses health care examples. Although most management accounting concepts are universal and the type of organization used to illustrate a point is relatively unimportant, the learning process for health care students is much easier when the examples come from their area of interest. The examples have been chosen with the hope that they will “resonate” with students because they deal with organizations with which the students have some familiarity. The same is true of the problems in the chapters and the practice cases at the ends of the chapters.

## Case Method of Instruction

Increasingly, accounting educators are recognizing the importance of using the case method in the teaching of management accounting. Its value is that it puts students in the middle of the action and requires them to be analytical—to apply principles rather than just memorize them. In this way it prepares students for work in a world where analysis, judgment, and attention to nuance increasingly are required for success.

The practice cases in this book are all quite short, and might even be thought of as extended problems. The conventional distinction between an extended problem and a case is that a case usually presents a situation for which there is no single right answer. For most of these practice cases, there are right answers, although as students will see, there is sometimes more room for judgment than they might imagine initially. Thus these cases that may seem at first to be extended problems frequently have some of the flavor of more traditional cases.

Given the technology available in the workplace today, students need to become proficient in the use of microcomputers in general and spreadsheet packages in particular. To this end, several practice cases are good candidates for a relatively simple spreadsheet analysis, and students should be encouraged to use spreadsheet software in preparing their analyses of these cases.

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## TO THE INSTRUCTOR

This book has been written principally for use in a one-semester, user-oriented course in management accounting, using the case method of instruction. Each chapter is designed to be covered in one to two weeks, ideally over four or five classes of 1.5 to 2 hours each. Clearly, a great deal depends on the amount of depth that you wish to pursue and how quickly or slowly you wish to move through the course.

The material in this book has also been used in a half-semester course on management accounting for M.B.A. students. Here, each chapter was covered in about two class meetings of two hours each.

Students’ preparation for the first class session associated with a given chapter should include reading the chapter, engaging in the interactive activities in the chapter, and analyzing the practice case(s) at the end of the chapter. Please bear in mind that due to the interactivity, students will need considerably more time to read these chapters than they would if they were using a more traditional text. Moreover, they will also need to spend time analyzing the practice cases.

Given these factors it is sometimes useful to have an open class discussion following the students' reading of each chapter and preparation of the practice case(s). This discussion can serve to clarify the chapter's concepts and to deal with any difficulties the students are having in using them.

After this class session, each remaining class for a given chapter can focus on a case study that requires students to use chapter concepts and techniques. This way, the concepts are first clarified and then used in the analysis of case situations. In general the cases at the end of each chapter progress from rather easy to somewhat difficult. In some chapters the latter cases become quite complex and may require two class sessions for a full discussion.

If you wish help in selecting additional cases for your course, you may contact the Crimson Press Curriculum Center ([www.thecrimsongroup.net](http://www.thecrimsongroup.net)) and review its on-line catalogue of materials. The center also has a list of suggested cases for each chapter. In addition, the Harvard Business School Press has a catalogue and a Web site ([www.hbsp.harvard.edu](http://www.hbsp.harvard.edu)) that can help you in selecting additional cases to supplement each chapter.

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## ORGANIZATION OF THIS BOOK

The table of contents shows the major headings in each chapter. The overall themes for each of the eight chapters are discussed briefly here.

### Chapter One: Essentials of Full Cost Accounting

The question "What did it cost?" is one of the trickiest accounting questions for all organizations—manufacturing, service, and nonprofit. This chapter discusses the kinds of managerial decisions that are made in answering this question as well as the managerial utility of full cost information. It also links the cost accounting effort to the economist's three factors of production: land, labor, and capital.

### Chapter Two: Differential Cost Accounting

The notion that different costs are used for different purposes is frequently a difficult one for students to accept. This chapter explains why this notion is important, focusing in particular on the distinction between full costs and differential costs and on when each approach should be used. It also discusses cost behavior, including the distinctions among fixed, variable, step-function, and semivariable costs. Next, it explains how to undertake cost-volume-profit analyses and discusses the concept of contribution. The ideas discussed in this chapter are important for managers when they are making a wide variety of what are called *alternative choice decisions*; here, managers must analyze how costs behave in each of two or more approaches to accomplishing a particular task.

### Chapter Three: Absorption Costing

The discussion in Chapter One focuses principally on service organizations. Chapter Three looks at various types of costs that exist in a manufacturing setting, showing how to compute the cost of goods manufactured and cost of goods sold with job order and process systems. This chapter also discusses overhead rates, including predeter-

mined overhead rates, flexible overhead budgets, the computation of overhead variances, and the managerial uses of overhead variances. The examples used feature laboratories and medical equipment manufacturers—perhaps the only true manufacturing entities in health care. Although most health care managers do not need to understand absorption costing for their day-to-day responsibilities, the material is included here for two reasons: first, some accountants working in the health care field have a manufacturing background, and managers need to be comfortable with the terminology these accountants use; and second, the use of activity-based costing (ABC) is becoming increasingly prevalent in health care, even though many users of ABC do not understand the kinds of problems it was designed to solve; managers who understand absorption costing will be better able to employ ABC appropriately.

### **Chapter Four: Activity-Based Costing and Variable Costing**

This chapter first examines the role of activity-based costing, including second-stage cost drivers. Many organizations are turning to ABC as a way to both measure costs more accurately and exert greater control over them. Thus this chapter also bridges forward to the final four chapters. The chapter then looks at the distinction between absorption costing and variable costing and discusses the advantages and disadvantages of each. Again, although absorption costing may not be especially relevant for most health care organizations, variable costing can be an extremely important tool for many managers. It is not used much in health care currently, yet used appropriately it could be a powerful tool.

### **Chapter Five: Responsibility Accounting: An Overview**

There is an important distinction to be made between measuring resources and controlling resources. This chapter makes that distinction and moves into the realm of responsibility accounting. To design a good responsibility accounting system, a manager must think about the organization's management control system, in terms of both its structure and its process. The discussion here emphasizes structure, examining the different types of responsibility centers that can exist in an organization, the basis for choosing one type over another, and the relationship between the responsibility structure and managers' incentives. The chapter also discusses transfer prices and their role in a management control system. It concludes with a summary of the four phases of the management control process.

### **Chapter Six: Programming and Budgeting**

Because money can earn interest, a given sum of money received at some point in the future is worth less to an individual than that same sum received today. This concept lies at the heart of capital budgeting, where an organization invests some money today so as to receive some returns on that investment over a number of years in the future. This chapter discusses some of the techniques for analyzing investments using the concept of present value. It also looks at the effect of taxes and accelerated depreciation on a capital investment decision, examines the issues involved in choosing a discount rate for assessing a capital project, and assesses the impact of political and

behavioral considerations on the choice of capital projects. (Although the issue of taxes and accelerated depreciation may seem unimportant to students planning to work in a nonprofit environment, some of these students are likely to spend at least a portion of their careers in the for-profit sector of the health care field, and knowledge of these matters will be important to their success there.)

The chapter then discusses operational budgeting, the process that focuses on operating revenues and expenses and that is typically carried out annually in an organization. Among the topics addressed are the key elements in the budget process, and the relationship between budgeting and responsibility centers, the meaning of the term *flexible budget* and the budget's role in a management control system, the organizational and strategic contexts in which budgeting takes place, the mechanical aspects of building a budget, and seven common budgeting misfits.

## **Chapter Seven: Measuring and Reporting**

Two important phases in the management control process involve measurement of performance and the reporting of that information to managers. This chapter discusses these phases, placing particular emphasis on variance analysis, a technique that allows managers to see with some clarity the reasons underlying a difference between budgeted and actual revenues and expenses. The chapter also addresses an emerging concern of many health care organizations—the measurement of nonfinancial performance. Among the specific topics discussed in the chapter are the role of a flexible budget in a management control system, the uses and limitations of variance analysis, the relationship between variance analysis and management reporting, the criteria for a reporting process that can communicate action-oriented information to managers, and a summary of the criteria for a good management control system.

## **Chapter Eight: Implementing a New Responsibility Accounting System**

The value of the concepts of structure and process that form the basis of responsibility accounting systems derives from their application to real-world situations and problems. The ultimate goal is to develop responsibility accounting systems that facilitate the improved operation of a health care organization. Doing so requires assessing how a responsibility accounting system fits into its broader organizational context. This chapter summarizes the key characteristics of a good responsibility accounting system. It then positions the responsibility accounting system in an organizational context made up of seven organizational processes, a perspective that is consistent with much of the shift that is taking place in many organizations toward a focus on processes rather than functions.

## **Additional Materials**

An appendix at the end of the book contains solutions to the practice cases. A glossary of selected terms and concepts used in this book is also provided.