

# MANAGERIAL ACCOUNTING

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FESS·WARREN

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# MANAGERIAL ACCOUNTING

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# Preface

MANAGERIAL ACCOUNTING presents fundamental accounting concepts that are useful to management in planning and controlling operations in a logical, concise, and clear manner. Thus, the text permits instructors to focus on clarifying issues and solidifying the student's understanding of managerial accounting.

To provide a sense of direction for the study of the text material, learning objectives are utilized. To this end, the objectives of the text are presented first, and then each chapter begins with a listing of the objectives for that chapter. The objectives thus serve as stimuli for the student's study and learning.

The text is organized into 18 chapters. The nature of managerial accounting is discussed early in the text and serves as the foundation for the introduction, in subsequent chapters, of accounting principles that are especially useful to management in conducting operations. As the principles are presented in subsequent chapters, they are integrated with the principles of the management process to enable the student to understand accounting as it affects managerial decision making.

Chapter 1 is an introductory chapter in which the nature of managerial accounting is presented and contrasted with financial accounting. The management process is also described and related to the ways in which accounting can be used by management in planning and controlling operations.

Chapters 2 and 3 describe and illustrate accounting systems for manufacturing operations, with emphasis on job order cost systems and process cost systems. The basic principles of a general accounting system for manufacturing operations are presented in Appendix D.

Chapters 4 and 5 present the concepts of budgeting and standard cost systems in a clear style, with extensive illustrations of these concepts.

Chapters 6–10 focus on analyses for management's use in decision making, including presentations of absorption costing, variable costing, cost-volume-profit analysis, differential analysis, capital investment analysis, and the impact of income taxes on management decisions.

Chapters 11 and 12 describe and illustrate responsibility accounting for cost, profit, and investment centers. Transfer pricing is also discussed.

Chapters 13 and 14 present quantitative techniques that are especially useful to management in controlling inventory, estimating costs, and coping with uncertainty. The basic concepts are presented in a format that is easy to understand and that focuses on management's use of these concepts in decision making.

Chapters 15–17 stress financial analyses for management use, including financial statement analysis, reporting changes in price levels, and the statement of changes in financial position.

Chapter 18 describes and illustrates managerial aids useful to management of nonprofit organizations.

Five self-examination questions are provided at the end of each chapter. After studying the chapter, the students can answer these questions and compare their answers to those appearing in Appendix C. In this manner, students can assess their understanding of the material presented in each chapter. It should be noted that Appendix C presents an explanation of both the correct and incorrect answers for each question and thus increases understanding and enhances learning.

The questions, exercises, problems, and mini-cases presented at the end of the chapters provide a wide choice of subject matter and range of difficulty for assignment material. They have been carefully written to be both practical and comprehensive. The mini-cases are designed to stimulate student interest by presenting situations with which students may easily identify. Each case emphasizes important chapter concepts. An additional series of problems is provided in Appendix B. The working papers correlating with the problems and mini-cases are designed to relieve students of the burden of repetitive details, so that attention may be more effectively directed to the mastery of the underlying concepts. A list of check figures for the problems is included in Appendix G for use by the student in checking the basic accuracy of a significant portion of the problems.

A glossary of technical terms and common business and accounting expressions is included in Appendix A. The terms included in the glossary are printed in color the first time they are presented in the text. In Appendix D, general accounting for manufacturing operations is presented for those who wish to review the general accounting system while they study the job order and process cost systems of accounting for manufacturing operations. Appendix E is provided for those who wish to use the work sheet in preparing the statement of changes in financial position. In Appendix F, a complete set of financial statements from the annual reports of two companies, and selected statements for other companies are reproduced.

A study guide with solutions, transparencies of solutions to exercises and problems, examination problems, true-false questions, multiple-choice questions, and a computerized testing program are also available.

Philip E. Fess  
Carl S. Warren

**TEXT  
OBJECTIVES**

*Describe the basic nature and structure of managerial accounting.*

*Describe and illustrate accounting systems for manufacturing operations.*

*Describe and illustrate managerial accounting concepts for planning and controlling operations and decision making.*

*Describe and illustrate financial analyses for management use.*

*Describe and illustrate managerial accounting for nonprofit organizations.*

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# 1

CHAPTER

## Nature of Managerial Accounting

### CHAPTER OBJECTIVES

*Describe the nature of accounting.*

*Describe the differences between financial accounting and managerial accounting.*

*Describe the management process and the basic structure of managerial accounting.*

# PART

# 1

## Basic Structure of Managerial Accounting

# 1

## CHAPTER

### FINANCIAL ACCOUNTING AND MANAGERIAL ACCOUNTING

Accounting<sup>1</sup> is often called “the language of business.” In fulfilling this role, the accounting system communicates economic information about an organization to many different users for use in making informed judgments and decisions. For example, investors in a business enterprise use accounting information about the firm’s financial status and its future prospects to make decisions regarding their investments. Creditors seek information useful in appraising the financial soundness of a business organization and assessing the risks involved before making loans or granting credit. Government agencies require economic information for purposes of taxation and regulation. Employees and their union representatives use economic information to evaluate the stability and the profitability of the organization that employs them.

The individuals most dependent upon and most involved with accounting are those charged with the responsibility for directing the operations of enterprises. They are often referred to collectively as management. The types of accounting data needed by management and the use of these data by management in directing operations are the focus of this text.

Although economic information can be classified in many ways, accountants often divide accounting information into two types: financial and managerial. A brief discussion of each of these is useful in understanding the nature of the information needed by management.

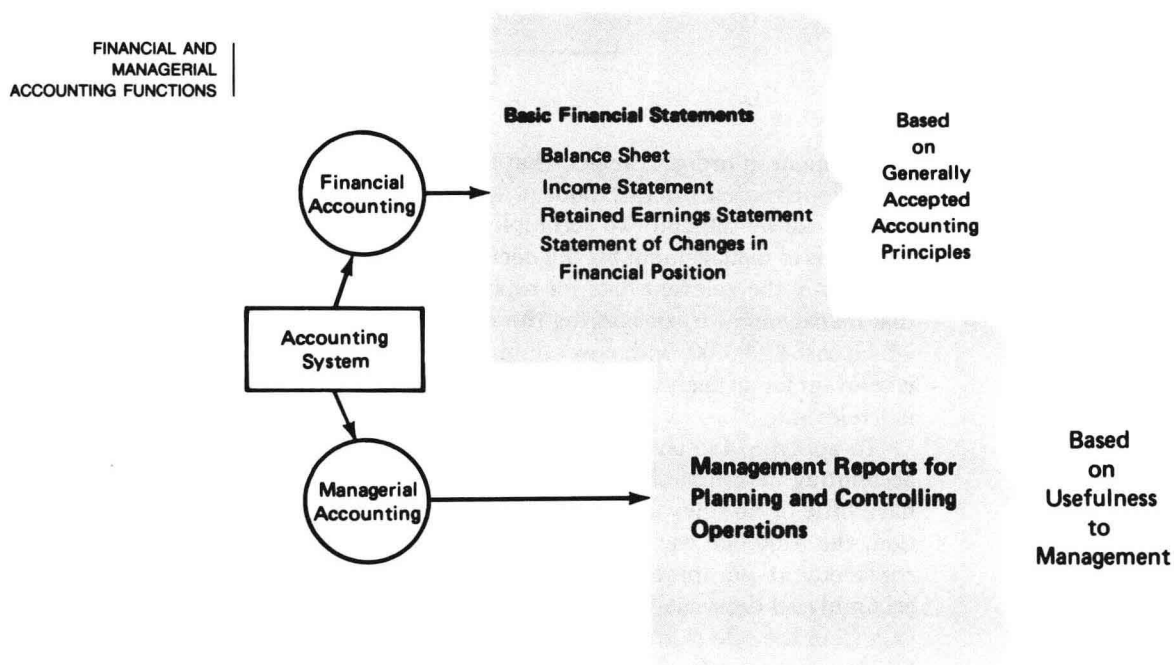
Financial accounting is concerned with the recording of transactions for a business enterprise or other economic unit and with the periodic preparation of various statements from such records. In performing these functions, financial accountants use generally accepted accounting principles (GAAP). The financial statements, which report the results of past financial activities, are intended primarily for the use of persons who are “outside” or external to the enterprise, such as shareholders, creditors, governmental agencies, and the general public. However, these statements are also useful to management in directing the operations of the enterprise. For example, in planning future operations, management often begins by evaluating the results of relevant past activities as reported in the basic financial statements.

Managerial accounting employs both historical and estimated data, which management uses in conducting daily operations and in planning future operations. For example, in directing day-to-day operations, management relies upon accounting to provide information concerning the amount owed to each creditor, the amount owed by each customer, and the date each amount is due. The treasurer uses these data and other data in the management of cash. Accounting data may be used by top management in determining the selling price of a new product. Production managers, by comparing past performances with planned objectives, can take steps to accelerate favorable trends and reduce those trends that are unfavorable.

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<sup>1</sup>A glossary of terms appears in Appendix A. The terms included in the glossary are printed in color the first time they appear in the text.

As indicated in the following diagram, managerial accounting overlaps financial accounting to the extent that management uses the financial statements in directing current operations and planning future operations. However, managerial accounting extends beyond financial accounting by providing additional information and reports for management's use. In providing this additional information, the accountant is *not* governed by generally accepted accounting principles. Since these data are used only by management, the accountant provides the data in the format that is most useful for management. The principle of "usefulness," then, is dominant in guiding the accountant in preparing management reports. The nature of managerial accounting reports and the concepts underlying their preparation are discussed in the following paragraphs.

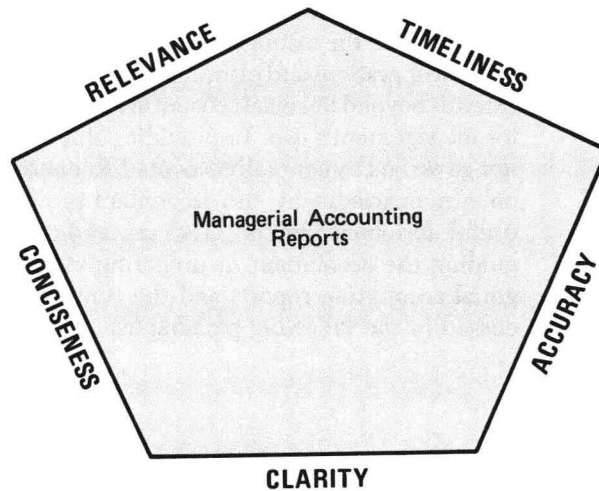


#### CHARACTERISTICS OF MANAGERIAL ACCOUNTING REPORTS

The managerial accountant can be viewed as the observer and reporter of the business's operations. In carrying out this reporting function, the usefulness of the accountant's reports for management depends on the characteristics presented in the diagram on page 4.

#### Relevance

Relevance means that the economic information reported must be pertinent to the specific action being considered by management. In applying this concept, the accountant must be familiar with the operations of the firm and the needs of

**CHARACTERISTICS OF  
USEFUL MANAGERIAL  
ACCOUNTING REPORTS**

management in order to select what is important from the masses of data that are available. Especially in this modern age of the information explosion, this selection process can be difficult. To accomplish this task, the accountant must determine the needs of management for the decision at hand, examine the available data, and select only the relevant data for reporting to management. To illustrate, assume that management is considering the replacement of fully depreciated equipment, which cost \$100,000, with new equipment costing \$150,000. It is the \$150,000 that is relevant for an analysis of financing the replacement. The original cost, \$100,000, is irrelevant.

In applying the concept of relevance, it is important to recognize that some accounting information may have a high degree of relevance for one use but may have little or no relevance for another use. For example, in the previous illustration, the \$100,000 was irrelevant for purposes of evaluating the financing of the replacement equipment. For tax purposes, however, the \$100,000 (and its accumulated depreciation) would be relevant for determining the amount of the gain from the sale or trade-in of the old equipment and the amount of the income tax due on any gain.

**Timeliness** | Timeliness refers to the need for accounting reports to contain the most up-to-date information. In many cases, outdated data can lead to unwise decisions. For example, if prior years' costs are relied upon in setting the selling price of a product, the resulting selling price may not be sufficient to cover the current year's costs and to provide a satisfactory profit.

In some cases, the timeliness concept may require the accountant to prepare reports on a prearranged schedule, such as daily, weekly, or monthly. For example, daily reports of cash receipts and disbursements assist management in effectively managing the use of cash on a day-to-day basis. On the other hand, weekly reports of the cost of products manufactured may be satisfactory to assist management in

the control of costs. In other cases, reports are prepared on an irregular basis or only when needed. For example, if management is evaluating a proposed advertising promotion for the month of May, a report of current costs and other current relevant data for this specific proposal would be needed in sufficient time for management to make and implement the decision.

**Accuracy** | Accuracy refers to the need for the report to be correct within the constraints of the use of the report and the inherent inaccuracies in the measurement process. If the report is not accurate, management's decision may not be prudent. For example, if an inaccurate report on a customer's past payment practices is presented to management, an unwise decision in granting credit may be made.

As previously indicated, the concept of accuracy must be applied within the constraint of the use to be made of the report. In other words, there are occasions when accuracy should be sacrificed for less precise data that are more useful to management. For example, in planning production, estimates (forecasts) of future sales may be more useful than more accurate data from past sales. In addition, it should be noted that there are inherent inaccuracies in accounting data that are based on estimates and approximations. For example, in determining the unit cost of a product manufactured, an estimate of depreciation expense on factory equipment used in the manufacturing process must be made. Without this estimate, the cost of the product would be of limited usefulness in establishing the product selling price.

**Clarity** | Clarity refers to the need for reports to be clear and understandable in both format and content. Reports that are clear and understandable will enable management to focus on significant factors in planning and controlling operations. For example, for management's use in controlling the costs of manufacturing a product, a report that compares actual costs with expected costs and clearly indicates the differences enables management to give its attention to significant differences and to take any necessary corrective action.

**Conciseness** | Conciseness refers to the requirement that the report should be brief and to the point. Although the report must be complete and include all relevant information, the inclusion of unnecessary information wastes management's time and makes it more difficult for management to focus on the significant factors related to a decision. For example, reports prepared for the top level of management should usually be broad in scope and present summaries of data rather than small details.

**Cost-Benefit Balance** | The characteristics of managerial accounting reports provide general guidelines for the preparation of reports to meet the various needs of management. In applying these guidelines, consideration must be given to the specific needs of each manager, and the reports should be tailored to meet these needs. In preparing reports, costs are incurred, and a primary consideration is that the value of the management reports must at least equal the cost of producing them. This



overriding cost-benefit evaluation must be considered, no matter how informational a report may be. A report should not be prepared if its cost exceeds the benefits derived by users.

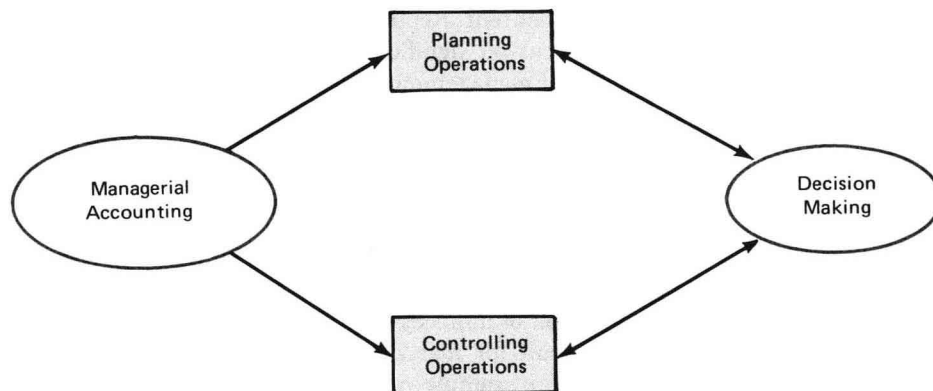
### THE MANAGEMENT PROCESS

Managerial accountants supply accounting information to assist management in the basic functions of planning and control. Planning is the process of setting goals for the use of an organization's resources and of developing plans to achieve these goals. Accountants provide information to enable management to plan effectively. For example, accountants provide information to assist management in setting product selling prices. In this context, projections indicating the anticipated results of alternate selling prices can be useful to management in deciding among alternatives.

Control is the process of directing operations to achieve the organization's goals and plans. For example, accounting reports comparing the actual costs with the planned costs of producing products provide management with the basis for making decisions to control costs.

A common ingredient of both planning and control is decision making, and accountants provide information useful to management in making decisions. For example, decisions need to be made in selecting from among alternate proposed plans. Decisions also need to be made to keep actual costs within the bounds of proposed costs. The relationship between managerial accounting, the management process, and decision making is shown in the following diagram:

### MANAGERIAL ACCOUNTING AND THE BASIC FUNCTIONS OF MANAGEMENT



As indicated in the diagram, decisions must be made by management in planning and controlling operations. As the results of these decisions evolve and are reviewed, additional decisions may be necessary to revise plans and modify steps taken to control operations. For example, if accounting information indicates that actual performance is below planned performance, the plans may be revised or the controls modified in an attempt to improve performance. Thus, the interrelationships of the planning and control functions of management may be viewed