

CHAPTER 1

INTRODUCTION TO COST MANAGEMENT

Chapter 1 can be covered on the first day of class. Students should understand what cost management is and how it is changing over time. This chapter is also a good place to introduce a discussion on ethical behavior. The Institute of Management Accountants' (IMA) code of ethics is presented on page 13 of the text. There are several good problems on ethics at the end of the chapter.

LEARNING OBJECTIVES

After studying Chapter 1, students should be able to:

1. Describe a cost management system, its objectives, and its major subsystems.
2. Identify the current factors affecting cost management.
3. Describe how management accountants function within an organization.
4. Understand the importance of ethical behavior for management accountants.
5. Identify the three forms of certification available to management accountants.

KEY TOPICS

The following major topics are covered in this chapter (related learning objectives are listed for each topic):

1. A Systems Framework (LO 1)
2. Factors Affecting Cost Management (LO 2)
3. The Role of the Management Accountant (LO 3)
4. Accounting and Ethical Conduct (LO 4)
5. Certification (LO 5)

I. A SYSTEMS FRAMEWORK

A *system* is a set of interrelated parts that performs one or more processes to accomplish specific objectives. An example of a system is the air conditioning system for a home. Exhibit 1-1 illustrates the operational model of an air conditioning system. An accounting information system consists of: objectives, interrelated parts, processes, and outputs. Inputs are generally economic events and the operational model of an accounting system is critically involved with the user of information.

Exhibit 1-2 presents an operational model of an accounting information system.

There are two basic accounting information systems: the financial accounting information system and the cost management information system. Each system is designed to satisfy different purposes. The financial accounting information system is an accounting information subsystem that is primarily concerned with producing outputs for external users. The cost management information system is an accounting information subsystem that is primarily concerned with producing outputs for internal users using inputs and processes needed to satisfy management objectives.

The cost management information system provides information for (1) determining the cost of products, services, and other objects of interest to management, (2) planning and control, and (3) decision making. Because managers in many different areas of a business require cost information, a high-quality cost management system should have an organization-wide perspective and be able to interact with other information systems within the organization.

Exhibit 1-3 illustrates the subsystems of an accounting information system. Integration of a company's cost management system with operational systems will reduce redundant storage and use of data, improve the timeliness of information, and increase the efficiency of producing reliable and accurate information. Enterprise resource planning (ERP) systems strive to input data once into a single database and make it available instantaneously to people across the company for multiple purposes. The data is available for preparing financial statements as well as generating any type of management report.

Cost Management System

Cost accounting attempts to satisfy three broad objectives for both financial and management accounting:

1. Costing of products, services and other objects of interest to management;
2. Planning and control: and
3. Decision making.

The first objective depends on the nature of the object being costed and the reason management wants to know the cost. Product costs include the cost of materials, labor and overhead. Managers want to know costs associated with products associated with products for tactical and strategic purposes.

Because most students will have completed a basic course in financial accounting, the differences between cost management and financial accounting can be discussed.

II. FACTORS AFFECTING COST MANAGEMENT

Students should understand factors that will impact a company's cost management system.

1. Global competition – Vastly improved transportation and communications have led to a global market for many manufacturing and service firms. For example, large US companies such as the Coca-Cola Company are developing sizable markets in China. This global focus highlights the need for cost information to reduce costs, improve productivity, and assessing product-line profitability.
2. Growth of the service industry – Traditional manufacturing industries have declined in importance. The service sector comprises approximately three-quarters of the U.S. economy and employment. Deregulation of many services such as airlines and utilities has increased competition in the service industry.
3. Advances in information technology – Automation and integration increase the need for timely, detailed information. Significant advances in technology include computer-integrated manufacturing and the availability of personal computers, spreadsheet software, and graphics packages.
4. Advances in the manufacturing environment – Manufacturing management approaches continue to be utilized to quality, reduce inventories, eliminate waste, and reduce costs.

5. Theory of constraints – A method used to continuously improve manufacturing activities and nonmanufacturing activities.
6. Just-in-time management – A demand-pull system that strives to produce a product only when it is needed and only in the quantities demanded by customers.
7. Computer-integrated manufacturing – The automation of the manufacturing environment.
8. Customer orientation – Firms are concentrating on the delivery of value to the customer in order to establish competitive advantage.
9. New product development – A significant proportion of production costs are incurred during the development and design stages. There is a high demand for more sophisticated cost management tools related to new product development. Activity-based management is introduced as a system that will allow management to identify and eliminate non-value added activities to reduce life cycle costs.
10. Total quality management – Continuous improvement and elimination of waste are the two foundation principles that govern a state of manufacturing excellence. A philosophy of total quality management has replaced the acceptable quality attitudes of the past.
11. Time as a competitive element – Time is a crucial element in all phases of the value chain, and world-class firms reduce time to market by compressing design, implementation, and production cycles.
12. Efficiency – Cost is a critical measure of efficiency. Activity-based costing and profit-linked productivity measurement are introduced as methods to evaluate the overall financial effect of productivity changes.

The textbook provide a basic discussion about these topics. These themes are expanded throughout the text. Students may be overwhelmed by the short presentation of these topics in Chapter 1. Emphasize that these topics will be covered in much greater detail in other chapters in the textbook and that students will probably not fully understand these factors until they have been covered in subsequent chapters.

III. THE ROLE OF THE MANAGEMENT ACCOUNTANT

The cost and management accountant is responsible for collecting, processing, and reporting information that will help managers in their planning, controlling, and decision-making activities. This is a good time to discuss what line and staff positions are, as well as who the controller and treasurer are and what they do. Line positions are positions that have direct responsibility for the basic objectives of an organization. Staff positions are positions that are supportive in nature and have only indirect responsibility for an organization's best objectives. The controller is the chief accounting officer who supervises all accounting departments. The controller is responsible for financial reporting, SEC reporting, tax planning and reporting, performance reporting, internal auditing, budgeting, accounting systems, and internal controls. The treasurer is responsible for the finance function. This includes collection of cash, monitoring cash payments, monitoring cash availability, short-term investing, short and long-term borrowing, and issuing capital stock.

You should include a brief discussion of the management process. The basic functions of management include planning, controlling, and decision making. Planning requires setting objectives and identifying methods to achieve those objectives. Controlling is the managerial activity of monitoring a plan's implementation and taking corrective action as needed. Control is usually achieved with the use of feedback, which is information that can be used to evaluate or correct the steps being taken to implement a plan. Exhibit 1-4 illustrates a performance report. Decision making is the process of choosing among competing alternatives.

IV. ACCOUNTING AND ETHICAL CONDUCT

A. Benefits of Ethical Behavior

Teaching values is considered by many to be an important part of the current educational process. In part, this feeling stems from a number of unethical practices that have been highly publicized. Some examples of moral lapses are reported in the chapter. You may want to cite some with which you are familiar.

Types of ethical issues include abuse of accounting information, acceptance of bribes or gifts, conflict of interest, and disclosure of confidential information. **Ten core values** of ethical conduct include honesty, integrity, promise keeping, fidelity, fairness, caring for others, respect for others, responsible citizenship, pursuit of excellence, and accountability.

Some believe that teaching ethics to college students is a waste of time. Those holding this view generally believe that by college age it is too late to change the ethical behavior of individuals. Evidence exists, however, that moral reasoning can be taught and that age is not a barrier. Furthermore, learning what is considered acceptable in a business environment is certainly a valid objective. Many, if not most, students will not have a well-developed understanding of "business" ethical issues.

Teaching hint: After discussing the reasons why teaching value judgments is important, ask the students to define ethical behavior. This usually provokes a lively discussion.

B. Standards of Ethical Conduct for Management Accountants

The role of professional codes of ethics should be discussed. Professional associations often provide a well-defined set of ethical standards, which helps to define acceptable and unacceptable behavior. A hallmark of a profession is a code of ethics. Exhibit 1-5 on page 13 of the text presents the IMA Standards of Ethical Conduct for Management Accountants. The four standards of the IMA's code of ethics are (1) competence, (2) confidentiality, (3) integrity, and (4) objectivity. The IMA code of ethics also includes a discussion of the resolution of ethical conflict. There are problems and cases in this chapter and throughout the book that provide additional ethical dilemmas.

V. CERTIFICATION

This section briefly discusses the three major certifications available to internal accountants. Most students are aware of the CPA but are probably not as knowledgeable about the CMA or CIA. Explaining why these two certifications are viable alternatives to the CPA should prove to be interesting for those who are considering a career in accounting.

The responsibility of the CPA is to provide assurance concerning the reliability of financial statements. The CMA designation was established to help management accounting to be recognized as a professional discipline separate from the profession of public accounting. The focus of the CIA is to recognize competency in internal auditing rather than external auditing.

Teaching hint: Ask students why certification is needed. You may wish to point out that other professions such as engineering and data processing also have certifications.

VI. INFORMATION ABOUT EXERCISES, PROBLEMS, AND CASES

Exercises and problems are described according to coverage of content, learning objective(s), and level of difficulty. The time required to solve the problems is roughly proportional to the level of difficulty.

In general, *basic* exercises/problems are fairly simple and straightforward. The text material is relatively brief; only one or two concepts are covered. Basic exercises and problems should take about 15 to 20 minutes each.

Moderate exercises/problems may take longer and involve more concepts. These problems may have a "twist" and require more thought. Moderate exercises and problems may take 20 to 40 minutes each.

Challenging problems are more comprehensive and may cover more concepts. The text material is relatively longer and may include some ambiguity. Challenging problems may take 60 to 90 minutes each.

<u>Exercise/ Problem</u>	<u>Topic</u>	<u>Learning Objective</u>	<u>Degree of Difficulty</u>
1-1	Financial Accounting and Cost Management	LO 1	Basic
1-2	Customer Orientation, Quality, Time-Based Competition	LO 2	Basic
1-3	Customer Orientation	LO 2	Basic
1-4	Ethical Behavior	LO 4	Basic
1-5	Behavioral Impact of Cost Information	LO 3, 4	Basic
1-6	Managerial Uses of Accounting Information	LO 3	Basic
1-7	Financial Accounting versus Cost Management	LO 1	Moderate
1-8	Ethical Issues	LO 4	Moderate
1-9	Ethical Issues	LO 4	Basic
1-10	Ethical Issues	LO 4	Moderate
1-11	Ethical Issues	LO 4	Moderate
1-12	Ethical Issues	LO 4	Challenging
1-13	Collaborative Learning Exercise	LO 1	Moderate
1-14	Cyber Research Case	LO 5	Moderate

LIST OF ILLUSTRATIONS

<u>Illustration</u>	<u>Topic</u>
Exhibit 1-1	Operational Model of the Air-Conditioning System
Exhibit 1-2	Operational Model of an Accounting Information System
Exhibit 1-3	The Subsystems of an Accounting Information System
Exhibit 1-4	Performance Report Illustrated
Exhibit 1-5	Statement of Ethical Professional Practice