

Solutions Manual for Horngren's Cost Accounting 18th Datar

1

The Manager and Management Accounting

TRANSITION NOTES

This chapter introduces the five-step decision-making process utilized by managers to make a variety of decisions. This process becomes an underlying theme of the text as it is applied to a number of types of decisions throughout the text. The steps of the five-step decision-making process are (1) identify the problem and uncertainties, (2) obtain information, (3) make predictions about the future, (4) make decisions by choosing among alternatives, and (5) implement the decision, evaluate performance, and learn. With the emphasis on the five-step decision process, material relating to the problem-solving, scorekeeping, and attention-directing roles of the management accountant are streamlined. There is also an increased emphasis on the linkage between the set of business functions in the value chain and customer expectations as key success factors.

EXERCISES AND PROBLEMS CORRELATION CHART

18 th Edition	17 ^h Edition	18 th Edition	17 th Edition
17	17	28 Revised	28
18 Revised	18	29	29
19 Revised	19	30	30
20 Revised	20	31	31
21 Revised	21	32	32
22	22	33	33
23 Revised	23	34 Revised	34
24	24	35 Revised	35
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I. LEARNING OBJECTIVES

1. Distinguish financial accounting from management accounting.
2. Understand how management accountants help firms make strategic decisions.
3. Describe the set of business functions in the value chain and identify the dimensions of performance that customers are expecting of companies.
4. Explain the five-step decision-making process and its role in management accounting.
5. Describe three guidelines management accountants follow in supporting managers.
6. Understand how management accounting fits into an organization's structure.
7. Understand what professional ethics mean to management accountants.

II. CHAPTER SYNOPSIS

Chapter 1 is an important introductory chapter. The underlying premise of this text, *Cost Accounting: A Managerial Emphasis* (18th ed.), is the importance of cost accounting data in making managerial decisions. Distinction is made between financial accounting and managerial accounting. **Financial accounting** focuses on reporting financial information to external parties such as investors, government agencies, banks, and suppliers based on Generally Accepted Accounting Principles (GAAP). The most important way financial accounting information affects managers' decisions and actions is through compensation, numbers in financial statements. Management accounting is the process of measuring, analyzing, and reporting financial and nonfinancial information that helps managers make decisions to fulfill the goals of an organization. Managers use management accounting information to:

1. develop, communicate, and implement strategy
2. coordinate design, operations, and a company's performance.

Cost accounting provides information for both management accounting and financial accounting professionals. Cost accounting is the process of measuring, analyzing and reporting financial and nonfinancial information related to the costs of acquiring or using resources in an organization. The distinction between management accounting and cost accounting is not so clear-cut, and we often use these terms interchangeably in the book.

Successful management accounting systems capture and report information that helps managers make decisions to fulfill organizational goals in an effective and efficient manner. Management accounting also provides information critical to the planning and control decisions of managers.

A five-step decision-making process is introduced to guide successful decision making: identify the problem, obtain information, make predictions about outcomes, make a decision, and implement the decision.

Key guidelines for management accountants include: cost-benefit analysis, behavioral considerations, technical considerations, and different costs for different purposes. Understanding these guidelines is essential for the student to have a solid foundation for material that is presented later in the text.

As those responsible for the integrity of the accounting information used by external and internal parties, accountants must maintain the highest of ethical standards. They must take special care to avoid the appearance of ethical improprieties—not only avoid unethical behavior, but avoid the appearance of such. The Sarbanes-Oxley Act of 2002, passed in response to several large accounting scandals, imposes strict ethical standards on accountants. Professional associations such as the AICPA and the IMA not only impose additional standards on their members but also provide resources that help members identify ethical issues and possible courses of action when ethical dilemmas confront them.

TEACHING POINT: The opening example of Netflix highlights how companies apply big data and machine learning to improve customer experience and control costs. Ask the

students to consider how similar tools are used in companies like Spotify, Amazon, or Google.

III. POINTS OF EMPHASIS

1. Make sure that the students understand the perspective of cost accounting and how it differs from that of financial accounting.
2. The cost–benefit ratio is pervasive throughout the text. The students should grasp this concept early or they will not fully understand cost accounting.
3. Another recurring theme throughout the text is the five-step decision model. Emphasize this concept and be certain the students are operationally familiar with it.
4. The guidelines to management accounting covered in Learning Objective 5 give the student a proper perspective in order to “do” management accounting.
5. It is helpful and sets an ethical tone for the class if you go over the points included in the IMA Code of Ethical Conduct. Discuss the definitions of the terms covered in the Code, making certain that the students have a grasp of what is involved in ethical conduct.

IV. CHAPTER OUTLINE

LEARNING OBJECTIVE

1

Distinguish financial accounting

... reporting on past performance to external users

from management accounting

... helping managers make decisions

- 1.1 Accounting systems process economic events and transactions into information helpful to managers. This data is collected, categorized, summarized, and analyzed.
- 1.2 Accounting systems provide information found in the financial statements as well as in internal performance reports.
- 1.3 Managers use this information to administer the activities of their area of responsibility.
- 1.4 Information needs may vary depending on managerial needs.

TEACHING POINT. It is good to stop here and evaluate the different needs of different users within the company. Sales

managers are interested in sales data by region or sales person; distribution managers may be interested in orders by geographic location or requested due dates; manufacturing managers may be interested in quantities of products ordered so production scheduling can occur. All of these are interested in different aspects of the sales data.

- 1.5 Management accounting has a different focus than financial accounting. The management accountant reports financial and nonfinancial information that helps managers make decisions that will help the company achieve its goals or implement its strategy. It is forward-looking.

TEACHING POINT. Students need to understand from the start the “decision-making” focus of management accounting.

- 1.6 Management accounting reports information in a manner that will help managers do their jobs better and are not restricted by Generally Accepted Accounting Principles (GAAP).

TEACHING POINT. This is a good time to introduce an overriding element of management accounting—the cost–benefit ratio. Engage the students in a cost–benefit analysis from personal experience. For example, compare the cost of getting a college education (including lost wages) with the benefits. Link the discussion to the original decision to (1) attend college and (2) the choice of a college.

- 1.7 Financial accounting has a historical focus, as it reports the results of operations to external parties. These reports must adhere to GAAP.

- 1.8 Cost accounting and financial accounting do not operate independently. Cost accounting, in addition to providing information for management accounting decision-making needs, also provides data to meet financial accounting inventory-valuation needs.

(Exhibit 1-1 summarizes the major differences between financial and managerial accounting.)

- 1.9 **Cost management** describes the activities managers undertake to use resources in a way that increases a product’s value to customers and achieves an organization’s goals.

TEACHING POINT. Students are frequently confused by cost accounting terminology. Explain that different practices arise in different companies. Because cost accounting is not for external reporting purposes, there is frequently a lack of communication among companies, and no standard terminology developed. Many cost accounting terms lack a uniform definition, and many practices may go by different names.

- 1.10 AI tools (like Microsoft Copilot and ChatGPT) are now helping accountants and managers write first drafts of reports, scan policies, or detect anomalies in large data sets.

TEACHING POINT: Students may find it helpful to explore

current or anticipated uses of AI in accounting roles.

Refer to Quiz Question 1

LEARNING
OBJECTIVE

2

Understand how management accountants help firms make strategic decisions

... they provide information about the sources of competitive advantage

- 2.1 **Strategy** describes how an organization will compete and the opportunities management should pursue. It involves matching its capabilities with the opportunities in the marketplace to accomplish its objective.

TEACHING POINT. Emphasize here the difference in strategic and tactical decision making. Strategy focuses on the long term and is performed by upper management. Tactical decision making is short term and is in the realm of lower to middle management. For students a strategic decision is their choice of a college and a major. A tactical decision would be what class to study for tonight.

- 2.2 Two broad strategies include competing on the basis of price or on the basis of product differentiation.

TEACHING POINT. Have the students brainstorm for names of companies that have pursued either strategy. How have they implemented the strategy of price competition? How have they differentiated the product?

- 2.3 **Strategic cost management** describes cost management specifically focused on strategic issues. This seeks answers to questions such as:

- Who are our most important customers and how do we deliver value to them?
- What substitute products exist in the market? How do they differ from ours?
- What is our most critical capability? What do we do best?
- Will adequate cash be available to fund the strategy or is outside financing needed?

Refer to Quiz Question 2

Problem 1-29

LEARNING
OBJECTIVE

3

Describe the set of business functions in the value chain and identify the dimensions of performance that customers are expecting of companies

... R&D, design, production, marketing, distribution, and customer service supported by administration to achieve cost and efficiency, quality, time, and innovation



- 3.1 The **value chain** is the sequence of business functions in which customer usefulness is added to products or services.

(Exhibit 1-2 illustrates the six business functions in the value chain.)

TEACHING POINT: Costco example showcases effective cost leadership through tight cost controls, minimal advertising, and lean distribution. You could ask: How does Costco's model compare to companies like Target or Whole Foods? Or explore: What are the trade-offs between lean operations and customer experience?

- 3.2 **Research and development (R&D)** involves generating and experimenting with new ideas related to new products, services, or processes.
- 3.3 The **design** function undertakes detailed planning and engineering of products, services, or processes.
- 3.4 **Production** is procuring, transporting, and storing (inbound logistics) and coordinating and assembling (operations) resources to produce a product or deliver a service.
- 3.5 **Marketing** involves promoting and selling products or services to customers. Today's CRM strategies (like at Procter & Gamble or Netflix) unify marketing, design, and customer service data to better serve high-value segments. This integrated data approach highlights why real-time cost and performance tracking is so critical.
- 3.6 **Distribution** is the process of delivering the products or services to customers.
- 3.7 **Customer service** provides after-sale service to customers.

TEACHING POINT. All of these functions are important and interrelated. The failure of a company to deliver any one of these adequately will have a negative impact on the others. Ask the students about negative experiences they have had with a company and which element of the value chain was involved. Probe further, exploring how this failure impacted the student's perception of the company in other areas.

- 3.8 Management accountants are involved in the value chain as they keep track of costs incurred in each category. This information helps managers evaluate cost–benefit tradeoffs.

- 3.9 Related to the value chain is the supply chain. Whereas the value chain is internal, the **supply chain** involves the flow of goods, services, and information from the initial source of materials and services to the delivery of products to consumers. The value chain can involve one or many different organizations.

(Exhibit 1-3 illustrates an overview of the value chain.)

- 3.10 The value chain and supply chain should be used by the company to deliver improving levels of performance for the customer. Key success factors in accomplishing this delivery include the following:

- **Cost and efficiency**—Determine what customers are willing to pay for a product or service and set a *target price*. By subtracting the desired profit, the company can then work to accomplish its *target cost*.
- **Quality**—Customers expect high levels of quality. Total Quality Management (TQM) is a philosophy that seeks to improve operations throughout the company and exceed customer expectations.

TEACHING POINT. Emphasize that quality does not have to be the most expensive. A product or service can be a quality product or service if it conforms to its intent. This is quality of conformance. Quality of design relates to products being thought of as being top-notch. A Rolls Royce automobile has quality of design. There is a more thorough discussion of quality in Chapter 19.

- **Time**—New product development time and customer response time are two elements of this factor. In today's time-conscious society, the customer wants the product or service now. Any delay is unacceptable. A company that can compete on the basis of time, whether in development or delivery is one that has an edge in today's market.

TEACHING POINT. When Fred Smith founded Federal Express to deliver packages overnight, many thought he would not succeed. However, Smith realized an unmet demand for quick delivery.

- **Innovation**—A constant flow of new products or services is the basis for ongoing company success.
- **Sustainability**—Companies increasingly apply the key success factors of cost and efficiency, quality, time, and innovation to promote sustainability.

Refer to Quiz Questions 3 and 4

Exercise 1-18

LEARNING OBJECTIVE

4

Explain the five-step decision-making process

... identify the problem and uncertainties, obtain information, make predictions about the future,

make decisions by choosing among alternatives,
and implement the decision, evaluate performance,
and learn to do planning and control

and its role in management accounting

... planning and control of operations and activities



4.1 Managers should go through a routine process in order to make effective decisions. This five-step decision-making process can be utilized to make a variety of decisions.

- **Identify the problems and uncertainties.** What are the choices that are being faced and where do the uncertainties lie?
- **Obtain information.** Gather information before making a decision helps the manager to make a more informed decision.

TEACHING POINT. Guard against information overload, or obtaining too much information. Narrow the choices so the volume of information is manageable. Too much information can lead to “paralysis of analysis,” or the inability to formulate a viable solution.

- **Make predictions about the future.** On the basis of the information obtained attempt to predict the outcome of each course of action.
- **Make decisions by choosing among alternatives.** The information has been gathered and projections made. Select an alternative.

TEACHING POINT. Do not shy away from making a decision. Someone once asked the president of General Motors if he had ever made a bad decision. His response was that to reach the level of success he had achieved, you were doing good to bat .500. You are going to make bad decisions, learn from them.

Collectively, the four preceding steps are known as **planning**—the selection of organizational goals, predicting results under alternative ways of achieving these goals, deciding how to attain these goals, and communicating the goals to the entire organization.

A **budget** has been described as the quantitative expression of a proposed plan of action. It is a planning tool.

Control is the action taken to implement the planning decisions represented by the budget.

- **Implement the decision, evaluate performance, and learn.** All the effort expended in steps 1 through 4 is useless unless the decision is put into action.

TEACHING POINT. Most people have been associated with organizations or individuals who would have great plans, and

would go through steps 1 through 4 of the process, only to fail to implement the decision. A colleague once came into work one morning, announcing an intention to return to school for an advanced degree. Fifteen years later, that colleague is still in the same company, without the degree.

Once implemented, the decision must be monitored. This is performance evaluation. One way of doing this is by comparing the budget with the actual results. This makes budgeting a control tool in addition to a planning tool. Often this is accomplished by the use of a performance report.

TEACHING POINT. Monitoring also helps keep the plan (or budget) realistic. If the person proposing the project knows the results will not be monitored, there is a tendency to overstate the benefits so the project will receive approval.

Learn. If the results were not as planned, find out why. Use this information to improve the decision-making process for future decisions.

Refer to Quiz Question 5

Exercise 1-24, 25

LEARNING OBJECTIVE

5

Describe three guidelines management accountants follow in supporting managers

... employing a cost–benefit approach, recognizing behavioral as well as technical considerations, and calculating different costs for different purposes

TEACHING POINT. These guidelines are the foundation for the rest of the text. Students must understand that everything that is to follow must be filtered through the lens of cost-benefit, behavioral and technical considerations, and different costs for different purposes.

- 5.1 **Cost–benefit approach.** Always ask if the benefits from undertaking the activity exceed the costs of doing so.
- 5.2 **Behavioral and technical considerations.** Consider the motivational aspect of the decision. Will the managers and employees be motivated to work toward the goals of the organization? Technical considerations provide managers with appropriate information at appropriate intervals to assist in decision making.
- 5.3 **Different costs for different purposes.** Much of this book is about alternative ways to compute costs. In determining the cost, the first question that should be asked is “What is the purpose of this cost number?” Performance evaluation, external reporting, and internal decision making are three different purposes that might require a different view of cost.

LEARNING
OBJECTIVE

6

Understand how management accounting fits into an organization's structure

... for example, the responsibilities of the controller

- 6.1 Most organizations distinguish between **line** and **staff** relationships. **Line management** is directly responsible for attaining the goals of the organization. Production is a line function. **Staff management** supports line management with advice and assistance. Accounting and human resources are two examples of staff management functions.
- 6.2 The **chief financial officer** or **CFO** (also called the finance director) is the executive responsible for overseeing the financial operations of an organization. Included among the responsibilities of the CFO are several functions:
- **Controller** provides financial information to managers and shareholders and oversees the overall operations of the accounting system. Controllers often have dotted-line reporting relationships—balancing support to business units with accountability to corporate finance. This dual role enables objectivity while providing valuable decision support across departments. Controllers do not usually have line authority, but they exert influence through information, credibility, and internal oversight, often reporting to both the CFO and division managers.
 - The **treasury** function includes banking, financing, investments, and cash management.
 - **Risk management** includes managing the financial risk of interest rate and exchange rate changes as well as derivatives management.
 - **Taxation** includes income taxes, sales taxes, and international tax planning.
 - **Investor relations** responds to and interacts with shareholders.
 - **Strategic planning** includes defining strategy and allocating resources to implement strategy.

The scope and importance of an **internal audit** has increased in recent years and now includes reviewing and analyzing financial and other records to attest to the integrity of the organization's financial reports and adherence to policies and procedures.

(Exhibit 1-6 illustrates a typical organization chart for the CFO)

LEARNING OBJECTIVE

7

Understand what professional ethics means to management accountants

... for example, management accountants must maintain integrity and credibility in every aspect of their job

- 7.1 Accountants have a special obligation regarding ethics, as they are responsible for the integrity of the financial information provided to external and internal users.
- 7.2 Sarbanes–Oxley focuses on improving internal control, corporate governance, monitoring of managers, and disclosure practices of public corporations. This legislation brought an increase in the ethical standards of managers and accountants.
- 7.3 The Institute of Management Accountants (IMA) is the largest association of management accountants in the United States.
- 7.4 The IMA offers professional certification in the form of the CMA designation—Certified Management Accountant. This certification represents a demonstration of technical competency in financial and managerial accounting and holds the CMA to high ethical standards.
- 7.5 The IMA *Standards for Ethical Conduct for Practitioners of Management Accounting and Financial Management* presents guidelines on issues relating to competence, confidentiality, integrity, and credibility.
(Exhibit 1-7 is a copy of the IMA Ethical Conduct Statement.)
- 7.6 In addition to the *Standards*, the IMA has an ethics hotline to assist members in resolving their ethical dilemmas.

TEACHING POINT. Students sometimes don't realize the importance of proper ethical behavior. A sign on a church once read "Integrity—Gained over a lifetime, lost in an instant." Emphasize that integrity, once lost, is difficult to regain. Also, it is important for the accountant to avoid even the appearance of unethical conduct.

Refer to Quiz Questions 9 and 10

Exercises 1-34, 1-35, 1-36, 1-37

V. OTHER RESOURCES

To download instructor resources, visit the Instructor's Resource Center at www.pearsonhighered.com/irc.

The following exhibits were mentioned in this chapter of the Instructor's Manual, and have been included in the **Image Library**.

Exhibit 1-1 summarizes the main differences between financial and managerial accounting.

Exhibit 1-2 illustrates the six business functions in the value chain.

Exhibit 1-3 illustrates an overview of the supply chain.

Exhibit 1-4 illustrates an overview of a performance report.

Exhibit 1-5 illustrates how accounting aids decision making.

Exhibit 1-6 illustrates a typical organization chart for the CFO.

Exhibit 1-7 is a copy of the IMA Ethical Conduct Statement.

Exhibit 1-8 is a copy of the IMA Resolution of Ethical Conduct.

CHAPTER 1 QUIZ

1. Why do most companies adhere to GAAP for their basic internal financial statements?
 - a. GAAP is required by law for publicly held companies.
 - b. To use GAAP and another system of reporting would be too costly for most companies.
 - c. Accountants are required by their code of ethics to use GAAP accounting.
 - d. Accrual accounting provides a uniform method to measure an organization's financial performance.
2. Which of the following is *not* true about strategy?
 - a. It involves matching its capabilities with the opportunities in the marketplace to accomplish its objective.
 - b. It has a short-term focus.
 - c. It can be implemented through price competition or product differentiation.
 - d. It involves the use of strategic cost management.
3. The value chain
 - a. involves external companies as well as internal activities.
 - b. is the sequence of business functions in which customer usefulness is added to products or services.
 - c. applies only to manufacturing companies.
 - d. is not relevant in today's cost accounting environment.
4. Which of the following is *not* a key success factor in a company's effort to deliver increased levels of performance to the customer?
 - a. Time
 - b. Innovation
 - c. Quality
 - d. Price reduction
5. The five-step decision-making process

- a. includes planning and control activities.
 - b. is performed exclusively by management accountants.
 - c. is not often used, as the costs exceed the benefits.
 - d. must be performed following GAAP guidelines.
6. In supporting managers, management accountants have three guidelines. These guidelines are
- a. cost–benefit analysis, performance reporting, behavioral considerations, and technical considerations.
 - b. cost–benefit analysis, behavioral considerations and technical considerations, and different costs for different purposes.
 - c. financial statement preparation, technical considerations, strategic direction, and budgeting.
 - d. following functional lines of authority, cost–benefit analysis, behavioral considerations, and use of the value chain.
7. _____ management exists to provide advice and assistance to those responsible for attaining the objectives of the organization.
- a. Line
 - b. Functional
 - c. Staff
 - d. Risk
8. The Treasurer
- a. is the executive responsible for overseeing the financial operations of an organization.
 - b. undertakes banking, financing, investments, and cash management duties.
 - c. provides financial information to managers and shareholders and oversees the overall operations of the accounting system.
 - d. is a different title for the Controller.
9. Which of the following is *not* one of the ethical responsibilities of a management accountant?
- a. Compliance
 - b. Confidentiality
 - c. Integrity
 - d. Objectivity
10. The Institute of Management Accountants issues which certification?
- a. CPA
 - b. CIA
 - c. CFE
 - d. CMA

CHAPTER 1 QUIZ SOLUTIONS

1. d
2. b
3. b
4. d
5. a
6. b
7. c
8. b
9. a
10. d

Chapter 1. The Manager and Management Accounting

- 1-17** a. Prod b. Dist c. Des d. R&D e. CS or Mark f. Des or R&D g. Mark h. Prod
1-18 a. Mark b. Gen Adm c. Serv Del d. CS e. Tech & Infra f. Gen Adm g. Serv Del
h. CS
1-19 a. Prod b. Dist c. Prod d. Prod e. Mark f. Mark g. Des or R&D h. CS
1-20 a. Innov b. Cost & Qual c. Time & Cost d. Innov, Sust & Cost e. Cost
1-21 a. Time & Cost b. Time & Cost c. Innov & Sust d. Cost, Time & Quality e. Cost
1-22 a. Planning b. Control c. Control d. Planning e. Planning
1-23 a. Control b. Control c. Planning d. Planning e. Planning
1-24 a. OI b. MP c. MD d. IE&L e. MP f. IP&U g. OI
1-25 a. MD b. IP&U c. OI and/or MP d. OI and/or MP e. MP f. OI
1-29 1. a. CL b. PD c. PD d. CL
1-30 1. a. CL b. PD c. CL d. PD
1-31 1. B-T 2. B-T 3. Dif 4. B-T 5. CB 6. CB 7. B-T 8. Dif 9. CB
1-32 1. B-T 2. CB 3. Dif 4. B-T 5. B-T 6. Dif 7. Dif
1-33 1. CFO CFO CFO Cont Cont CFO Cont Cont
1-36 2.Unacceptable: (c) (d) and (e) Gray to acceptable area: (a), (b), (f)
1-37 1.Unacceptable: (a) (c) (f) and (i) Acceptable: (d) (e) and (g) Gray area: (b) and (h)