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Solutions Manual for Cost Management 6th Hansen

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Solutions Manual for Cost Management
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CHAPTER 1

INTRODUCTION TO COST MANAGEMENT

EXERCISES

Exercise 1-1

- | | |
|--------|--------|
| a. FS | g. CMS |
| b. FS | h. FS |
| c. CMS | i. CMS |
| d. CMS | j. CMS |
| e. FS | k. FS |
| f. CMS | l. FS |

Exercise 1-2

1. Customers can be internal or external. Users of the component produced by Barry's department are his internal customers. This includes the Assembly Department and the Rework Department. They are directly affected by the quality of the product produced by Barry's department. In a sense, those who buy the cell phones are his customers too—after all, the functionality of the MP3 player is affected by the quality and reliability of its components.
2. Barry's department is producing a low-quality component. One out of every 50 units is having a high defect rate and is causing a lot of rework. Being sensitive would require a dramatic reduction in the defect rate. A reduction in the defect rate would decrease cycle time, lower the rework rate, and decrease costs. These improvements in quality create the potential to increase value for external customers and make the life of internal customers much easier. In turn, these quality enhancements will likely help Hepworth please a key stakeholder (customers) more consistently, thereby increasing sales and/or decreasing quality-related costs, both of which increase Hepworth's value over the long term.
3. Cost management can provide information concerning quality—both financial and nonfinancial. Defect rates can be tracked over time. Rework costs attributable to defective components from Barry's department can be measured and tracked over time. Cycle time reductions due to improved quality can be measured and reported. Product cost reductions attributable to improved quality can be reported.

Exercise 1-3

- | | |
|--------------------------------|---------------------------|
| a. Planning and control | h. Planning and control |
| b. Costing of service | i. Decision making |
| c. Costing of product/activity | j. Costing of service |
| d. Planning and control | k. Costing of an activity |
| e. Planning and control | l. Planning and control |
| f. Decision making | m. Decision making |
| g. Costing of product | |

Exercise 1-4

The manager is clearly considering unethical behaviors, especially the decisions associated with reducing maintenance and promotional salaries. Extending asset life for depreciation has less clear ethical implications. Reducing maintenance may not hurt much in the short run but will have long-run negative financial consequences. Furthermore, the decision for promotions has been made with a given set of financial expectations, and reducing the salary increases by 50 percent for deserving employees is obviously unfair to them. Although the manager is not a cost or management accountant, they are violating the ethical standard under integrity that requires him to “refrain from engaging in any conduct that would prejudice carrying out duties ethically” (III-2).

The reduction in promotional salary increases is particularly egregious in that they are reducing the salaries of others so that they may benefit. In effect, they are stealing from their subordinates. The reduction in maintenance budget is also a form of stealing—robbing future service potential to produce a current personal benefit.

An ethical dilemma does exist if the manager carries through with his plans. The dilemma exists because the manager wants to manipulate income to achieve personal financial gain. A company code of ethics and compliance monitoring is one recommendation. An internal audit could be used to detect and deter such questionable behavior. Furthermore, a company policy requiring managers to justify any expenditure reductions in writing to both the employees and higher management could discourage behavior like the manager’s. The best control, however, is hiring managers with the integrity to do the right thing even when faced with the opportunity to cheat or steal.

Exercise 1-5

1. The controller wants a written record of spoiled material in order to more closely control it. From a behavioral perspective, the formal record keeping of spoilage will make it seem more important to individuals on the factory floor. If the company has a total quality management program in effect, keeping track of spoilage can make it easier to note trends and ensure that spoilage is being reduced over time. Additionally, the formal reporting of spoilage may make it easier to pinpoint the areas in which spoilage occurs and may enable management to improve the system to eliminate spoilage. Employees should be made aware that the purpose of tracking spoilage is to eliminate it, not to fix blame.

It is possible that everybody doesn't know what the spoilage rate is. Some people may think it is high; others may think it is low. A written record of spoilage will prevent a certain amount of pointless arguing about this. For example, the plant manager will not be forced to rely on the production manager's assessment of spoilage. Instead, both managers can rely on the recorded spoilage to determine how much is occurring and how it can best be reduced.

2. The production manager correctly understands that keeping track of spoilage is additional work. This will cost the plant in one way or another. Even if an additional worker need not be hired, the workers who do record spoilage, by definition, will not be doing something else. The production manager should work together with the controller to ensure that the costs of recording spoilage do not exceed the benefits. He should also attempt to make the recording as easy as possible and concentrate on the "expensive" spoilage. Finally, his remark indicates that workers may hide spoilage to avoid responsibility. They may "steal" it and then dispose it, or they may simply pass on a bad unit to the next process. Either approach is costly and not in harmony with the goal of improving quality. These problems can be avoided by training, education, and the installation of controls.

Exercise 1-6

1. **Planning.** The management accountant gains an understanding of the impact on the organization of planned transactions (i.e., analyzing strengths and weaknesses) and economic events (both strategic and tactical) and sets obtainable goals for the organization. The development of budgets is an example of planning.

Control and evaluation. The management accountant ensures the integrity of financial information, monitors performance against budgets and goals, and provides information internally for decision making. Comparing actual performance against budgeted performance and taking corrective action where necessary is an example of control and evaluation.

Exercise 1-6 (Continued)

Continuous improvement. The management accountant helps identify opportunities for improvement, measures the projected costs and benefits, and reports on the actual outcomes.

Decision making. The management accountant helps in the analysis of various alternatives and in the choice of the optimal course of action.

2.
 - a. Planning: expected price, cost, and tax information are needed.
 - b. Continuous improvement: cost savings from improved order entry quality and improved customer satisfaction.
 - c. Control and evaluation: a performance report triggered the investigation that led to corrective action.
 - d. Decision making: relevant cost information is needed to decide whether to make or buy the component.
 - e. Decision making: accounting must analyze cost-volume-profit effects.
 - f. Continuous improvement: initial quality costs by category with reports revealing their changes over time.
 - g. Planning: price and cost information with budgeted income statements are needed.
 - h. Continuous improvement: cost information for moving and waiting activities and finished goods inventories (e.g., carrying costs). Revenues for the increased market share would also be needed.

Exercise 1-7

Kaylin Hepworth is a line manager with direct responsibility for producing a major component of the plant's products. The basic objective of the plant is to produce speakers, and Kaylin plays a direct role in achieving this objective.

Joseph Nguyen is a line manager with direct responsibility for producing speakers. This is the basic objective of the plant. Thus, Joseph has direct responsibility for a basic objective and holds a line position.

Leo Tidwell is staff. He is in a support role—he prepares reports and helps explain and interpret them. His role is to help the plant manager and other line managers more effectively carry out their responsibilities.

PROBLEMS

Problem 1-8

Dear Jade,

I am pleased that you are considering taking an accounting course to complement your hotel and restaurant major. You will find that a basic knowledge of accounting will place you in good stead in dealing with the business aspects of hotel management.

Financial accounting is primarily aimed at outside parties. It involves generating financial statements that describe the assets and liabilities of a business and the periodic income earned. You will find that investors, lenders, the IRS, and other local, state, and federal regulatory and licensing agencies will appreciate a good solid financial accounting system.

Cost management is concerned with determining the costs of things like products, services, and activities. It is also concerned with using financial and nonfinancial information for planning, controlling, continuous improvement, and decision making. In your case, you will want to budget and control costs for a hotel. You may want to determine the costs and revenues of different services. For example, is it worthwhile to offer a Sunday brunch for hotel guests?

As you might guess, courses in both financial and cost management would be of value. If you cannot afford the time to take both accounting courses, a good solid background course in cost and management accounting would be best. Good luck with your goal of becoming a hotel manager!

Sincerely,

Problem 1-9

At first, this seems simple. Couldn't John simply mention that Patty had already accepted a position as controller in another company? Since the decision was a close one between the two, this information would likely tip the balance in favor of John. However, some ethical issues should be considered. First, the information that Patty gave was likely given in confidence, and John should not disclose this confidential information without her permission. Second, disclosing the confidential information may provide a personal benefit to John. Third, it may be that Patty will change her mind about the position she has accepted (assuming she can withdraw honorably from the acceptance) once she is officially aware of the promotion. This decision and its consequences should be Patty's and not John's. If I were John, I would leave the response to the promotion entirely in Patty's hands. Once offered the position, she may simply indicate that she cannot accept it because she is committed to another job. This may then cleanly open up the position for John.

Problem 1-10

1. Emily should not implement the suggested accounting procedures because they conflict with generally accepted accounting principles and violate Sections I and III of the Standards of Ethical Conduct for Management Accountants. It raises serious ethical questions in the areas of competence and integrity; for example, Emily is not able to "perform professional duties in accordance with relevant laws, regulations, and technical standards" or "communicate information fairly and objectively."
2. Emily should discuss the problem with the next highest management level (if the divisional manager's mind cannot be changed). This could be, for example, the corporate controller or the chief executive officer (CEO). She could also discuss the matter with an objective advisor to assess possible courses of action. In some firms, ethical hotlines exist that will allow the dilemma to be analyzed. If no resolution is obtained, then resignation may be called for.

Problem 1-11

The proposed changes violate the following ethical standards:

Competence. Top management's request for Kala Smith to account for the company's information in a manner that is not in accordance with generally accepted accounting principles violates the standard to "perform professional duties in accordance with relevant laws, regulations, and technical standards." (I-2)

Confidentiality. Top management has violated the ethical standard of "refrain[ing] from using confidential information for unethical or illegal advantage." (II-3)

Integrity. Top management has violated the standard to "avoid actual or apparent conflicts of interest and advise all appropriate parties [other shareholders] of any potential conflict." (III-1)

The motivation for top management in this circumstance may be reinforced by the favorable bonus situation, which is in violation of the standard to "refuse any gift, favor [bonus], or hospitality that would influence their actions."

Credibility. Top management's restriction and distortion of Silverado's financial information violates the standard to "communicate information fairly and objectively." (IV-1)

By telling Kala to restrict the disclosure of the changes, top management is clearly in violation of the standard to "communicate unfavorable as well as favorable information."

To resolve the ethical dilemma, Kala should first determine if the company has an established policy. If so, she should follow the prescribed policies in resolving the ethical conflict. If there is no policy, then the specific steps are as follows:

- a. To confront top management about the unethical behavior unless Kala believes that they are involved, in which case the problem should be presented to the next higher level, the chairman of the board of directors. If this fails, then the issue can be taken to the audit committee and the board of directors.
- b. To clarify relevant concepts by confidential discussion with an objective advisor to obtain possible courses of action.
- c. To resign and submit an informative memorandum to the chairman of the board of directors, if all levels of internal review have been exhausted and the conflict still exists.

Problem 1-12

By discussing the possible sale of Emery's common stock with members of the troubleshooting team, Gus Swanson has violated the following standards of ethical conduct:

Competence (I). Gus has an obligation to perform his duties in accordance with relevant laws and regulations. By discussing the information he learned about, he may have violated laws regulating the use of inside information.

Confidentiality (II). Gus has disclosed confidential information acquired in the course of his work that he has not been authorized to share with peers and others within the organization. In addition, he has not informed subordinates of the confidential nature of the information nor has he attempted to prevent the further distribution of this information.

Integrity (III). By discussing this information, Gus has engaged in an activity that would discredit his profession and prejudice his ability to carry out his duties ethically.

Credibility (IV). Gus has violated the requirement to communicate all information fairly and objectively.

Problem 1-13

1. Assuming the controller did not inform the CEO and CFO of the situation, the ethical considerations of the controller's apparent lack of action, as covered in the Standards of Ethical Conduct for Management Accountants, are as follows:

Competence (I). Management accountants have a responsibility to perform their professional duties in accordance with the relevant laws, regulations, and technical standards. The controller's apparent lack of action regarding the overstatement of inventory and lack of provision for potential purchase commitment losses do not comply with generally accepted accounting principles.

Integrity (III). Management accountants have a responsibility to avoid conflicts of interest, refrain from engaging in any activity that would prejudice their ability to execute their duties ethically, and refrain from engaging in any activity that would discredit their profession.

Credibility (IV). Management accountants have a responsibility to communicate information fairly and objectively and to fully disclose information that could influence an intended user's understanding of the reports.

Problem 1-13 (Continued)

- 2. The recommended course of action that you should take, as described in the Standards of Ethical Conduct for Management Accountants, is as follows:**

Consult company policies and procedures regarding ethical conflict. If the company does not have adequate procedures in place to resolve the conflict, then you should discuss the problem with Maria's immediate superior, the controller. However, as the controller is apparently involved in the matter and Maria has already spoken to him, it would not be necessary to inform him that she is taking the situation to the CFO.

Since the issue is still not resolved, she should consult the next higher level of management, the CFO, particularly since the CFO will be one of the signers of the representation letter.

During this process, you could clarify relevant concepts by confidential discussion with an objective advisor to obtain an understanding of possible courses of action. (The IMA maintains a toll-free ethics hotline for members experiencing ethical conflicts.)

If the issue remains unresolved, you should continue to take the problem to the next higher levels of authority, which may include the audit committee, executive committee, and/or the board of directors.

If the ethical conflict still exists, after exhausting all levels of internal review, you should resign and submit an informative memorandum to an appropriate representative of the organization.

Except where legally prescribed, communication of these issues to outsiders (the media, regulatory bodies, etc.) by you is not considered appropriate.

- 3. The actions that Heart Health Procedures can take to improve the ethical situation within the company include:**

Setting the tone at the top for control consciousness of the people in the organization.

Establishing an audit committee within the board of directors and providing an avenue for communication free of reprisals within the company.

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Instructor Manual

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Chapter 1: Introduction to Cost Management

TABLE OF CONTENTS

Purpose and Perspective of the Chapter	2
Chapter Objectives	2
What's New in This Chapter	2
Key Terms	2
Chapter Outline.....	5
Complete List of Chapter Activities and Assessments	16

PURPOSE AND PERSPECTIVE OF THE CHAPTER

The purpose of the chapter is to provide an understanding of cost management and its role in decision-making within organizations. It explains how cost management differs from financial accounting by focusing on internal reporting, cost control, and strategic planning rather than external financial statements. This chapter also identifies key factors and trends influencing cost management, such as technological advancements and global competition. Additionally, it describes the role of management accountants, highlighting their responsibilities in budgeting, performance evaluation, and strategic analysis. Lastly, it emphasizes the importance of ethical behavior for management accountants, ensuring integrity, transparency, and compliance with professional standards.

CHAPTER OBJECTIVES

The following objectives are addressed in this chapter:

1. Explain how cost management differs from financial accounting.
2. Identify factors and trends affecting the use of cost management.
3. Describe how management accountants function within an organization.
4. Understand the importance of ethical behavior for management accountants.

[\[return to top\]](#)

WHAT'S NEW IN THIS CHAPTER

Please download the Transition Guide for a detailed list of the changes to this chapter from the previous edition.

[\[return to top\]](#)

KEY TERMS

- **Accounting information system:** A system consisting of interrelated manual and computer parts that uses processes such as collecting, recording, summarizing, analyzing (using decision models), and managing data to provide output information to users.
- **Activity-based management:** An advanced control system that focuses management's attention on activities with the objective of improving the value received by the customer and the profit received by providing this value.

It includes driver analysis, activity analysis, and performance evaluation and draws on activity-based costing as a major source of information.

- **Business ethics:** Learning what is right or wrong in the work environment and choosing what is right.
- **Business sustainability:** A company's ability to create value over the long term by measuring performance, managing risks, and communicating effectively to key stakeholders in a manner that consistently reflects the achievement of its strategy.
- **Certified Internal Auditor (CIA):** An accountant certified to possess the professional qualifications of an internal auditor.
- **Certified Management Accountant (CMA):** An accountant who has satisfied the requirements to hold a certificate in management accounting.
- **Certified Public Accountants (CPAs):** An accountant certified to possess the professional qualifications of an external auditor.
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[\[return to top\]](#)

CHAPTER OUTLINE

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 - (b) Planning and control
 - (c) Decision making

- iv. Cost information
 - (a) It is also used for planning and control.
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 - (b) It is a critical input for many managerial decisions.
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 - (1) A cost management subsystem designed to assign costs to individual products and services and other objects as specified by management
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 - (3) Inventory values and cost of sales are reported in the aggregate, and the under- and overstatements may wash out to the extent that the values reported on the financial statements are reasonably accurate.
 - (4) If possible, the cost accounting system should produce product costs that simultaneously are accurate and satisfy financial reporting conventions.
 - (i) If not, then the cost system must produce two sets of product costs: one that satisfies financial reporting criteria and one that satisfies management decision-making needs.
 - (b) Operational control information system
 - (1) It is a cost management subsystem designed to provide accurate and timely feedback concerning the performance of managers and others relative to their planning and control of activities.
 - (2) Operational control is concerned with what activities should be performed and assessing how well they are performed. It focuses on identifying opportunities for improvement and helping to find ways to improve.
 - (3) A good operational control information system provides information that helps managers engage in

a program of continuous improvement of all aspects of their businesses.

(4) Objectives of an operational control system:

- (i) To improve the value received by customers:
Products and services should be produced that fit specific customer needs.
- (ii) To improve profits by providing this value:
Well-designed, quality products that are affordable can be offered only if they also provide an acceptable return to the owners of the company.

II. Factors Affecting the Use of Cost Management (LO 2)

a. Global Competition

- i. Several decades ago, firms neither knew nor cared what similar firms in Japan, Brazil, India, Germany, Africa, and China were producing. These foreign firms were not competitors because their markets were separated by geographical distance.
 - (a) Now, both small and large firms are affected by the opportunities and challenges offered by global competition.
- ii. For example, Apple manufactures over 500,000 iPhones every day in a Chinese factory with more than 200,000 employees and ships them around the world aboard massive Boeing 747 jets.
- iii. Improved transportation and communication in conjunction with higher quality products that carry lower prices have upped the ante for all firms. This global competitive environment has increased the demand not only for more cost information but also for more accurate cost information.
- iv. Cost information plays a vital role in reducing costs, improving productivity, and assessing product-line profitability.

b. Growth in the Service Industry

- i. The service industry—including financial services, transportation, technology, medical, and travel—represents a significant and growing portion of the economy. For example, the global financial services market is estimated at approximately \$25 trillion.
- ii. The service industry now comprises approximately three quarters of the U.S. economy and employment.
- iii. New products oftentimes spur the use of new services in order to function as customers desire, such as cars that utilize navigation services and smart televisions that utilize streaming services.
- iv. The gig economy, which refers to the use of short-term contracts to provide a service, represents one of the most impactful newer service sectors.

- (a) For example, many well-known startup service companies, such as Airbnb, Instacart, and Uber, have arisen out of the gig economy.
- v. The significant growth in the service industry has made managers in the industry more conscious of the need to have accurate cost information for planning, controlling, continuous improvement, and decision making.
- vi. The changes in the service sector add to the demand for innovative and relevant cost management information.
- c. Advances in Information Technology and the Manufacturing Environment
 - i. Enterprise resource planning (ERP) software can provide an integrated system capability—a system that can run all the operations of a company and provide access to real-time data from the various functional areas of a company spanning the entire value chain.
 - (a) Analyzing this real-time data enables managers to continuously improve the efficiency of organizational units and processes.
 - (b) For example, UPS utilizes its multibillion-dollar investments in information technology to provide customers with cutting-edge services, such as processing an astonishing 295 million daily package tracking requests from customers.
 - ii. Activity-based costing (ABC) software is classified as online analytic software and facilitates improved decision making around areas such as cost estimation, product pricing, and planning and budgeting.
 - (a) This vast computing capability now makes it possible for accountants to generate individualized reports on an as-needed basis.
 - iii. The theory of constraints is a method used to continuously improve manufacturing and nonmanufacturing activities.
 - iv. Just-in-time (JIT) manufacturing, strives to produce a product only when it is needed and only in the quantities demanded by customers.
 - (a) JIT is a critical part of a more comprehensive approach referred to as lean manufacturing—the persistent pursuit and elimination of waste that simultaneously embodies respect for people.
 - (b) Depending on the nature of the value streams created in lean manufacturing, a more accurate assessment of product costs may result.

- d. Cybersecurity and Data Privacy
 - i. The explosion in hacking and malware has led companies to emphasize data and cybersecurity. Dedicated professionals identify threats and shore up company defenses against them.
 - ii. The proliferation of the cyberthreats has also led to an increased emphasis on data privacy as both internal company data and customer data must be guarded against falling into the wrong hands.
 - iii. Cost and managerial accountants are important members of the data security teams.
- e. Customer Orientation
 - i. Companies increasingly utilize advances in digital information technologies, including data analytics, to estimate the profitability of their current and potential future customers.
 - ii. Accountants and managers refer to a firm's value chain as the set of activities required to design, develop, produce, market, and deliver products and services to customers.
 - (a) As a result, a key question to be asked about any process or activity is whether it is important to the customer.
 - iii. The cost management system must track information relating to a wide variety of activities important to customers (e.g., product quality, environmental performance, new product development, and delivery performance).
 - (a) Activity-based management identifies the activities produced at each stage of the development process and assesses their costs.
 - (b) Target costing encourages managers to assess the overall cost impact of product designs over the product's life cycle and simultaneously provides incentives to make design changes to reduce costs.
 - iv. Companies must compete not only in technological and manufacturing terms but also in terms of the speed of delivery and response.
 - (a) Example: Firms such as FedEx have exploited this desire by identifying and developing a market the U.S. Postal Service could not serve.
 - v. Companies have internal customers as well. The staff functions of a company exist to serve the line functions.
 - (a) Accounting departments that are "customer driven" assess the value of the reports to be sure that they communicate significant information in a timely and readable fashion.
- f. Total Quality Management
 - i. A philosophy of total quality management, in which managers strive to create an environment that will enable organizations to

produce defect-free products and services, has replaced the acceptable quality attitudes of the past.

- ii. The emphasis on quality applies to services as well as products.
- iii. Objective: Pursuing an objective of high-quality promises major benefits.

- (a) Cost management supports this objective by providing crucial information concerning quality-related activities and quality costs.

g. Data Analytics

- i. Data analytics generally refers to the practice of identifying and analyzing appropriate data and then communicating the resulting insights to help improve organizational decision making.

- (a) For example, executives increasingly expect their accountants to utilize data analytics in forecasting the financial consequences of various decisions.

- ii. Applications of data analytics:

- (a) Forecasting—Using analytical tools and data mining techniques to discover key and relevant trends, both historical and predictive in nature.

- (b) Budgeting—Projecting the amount and timing of financial and operational resources required to allow the organization to achieve its long-term strategic goals.

- (c) Extraction—Identifying, transforming, and querying the data necessary to conduct important financial analyses that often involve multiple data sets and information systems.

- (d) Governance—Considering the degree of accuracy, decision relevance, and security of the increasing amount and types of data used in various financial estimates, including those involving enterprise risk management issues.

- (e) Visualization—Determining how best to present complex analytical tools and organizational performance results in a manner that is transparent and understandable to investors and other key stakeholders.

h. Forensic Accounting

- i. Forensic accounting is the action of identifying, recording, settling, extracting, reporting, and verifying past financial data or other accounting activities for settling current or prospective legal disputes or using such past financial data for projecting future financial data to settle legal disputes.

- ii. Forensic accountants provide accounting measurement services in several different but related areas:

- (a) Fraud investigations (i.e., finding fraud and measuring the cost of resulting damages, preventing or minimizing fraud, and testifying in fraud cases);

- (b) Litigation support (i.e., litigation consulting, preparing expert opinion reports, and testifying at trials or in other formats)
 - (c) Performing business valuations (i.e., both adversarial and non-adversarial)
 - i. Business Sustainability
 - i. Business sustainability refers to a company's ability to create value over the long term by measuring performance, managing risks, and communicating effectively to key stakeholders in a manner that consistently reflects the achievement of its strategy.
 - ii. Stakeholders increasingly desire information that can help them assess the company's business sustainability performance, which a growing number of investors interpret as a leading indicator of future financial performance.
 - iii. Business sustainability disclosures pertain to numerous issues:
 - (a) The company's employee safety at overseas clothing manufacturing plants
 - (b) Compliance with Environmental
 - (c) Protection Agency rules on air, soil, and water pollution
 - (d) Status regarding product and service innovation efforts
 - (e) Carbon emissions across product and service life cycles
 - (f) Supplier selection processes
 - (g) Employee engagement endeavors
 - iv. Companies typically include these disclosures in an annual corporate sustainability report (CSR), also referred to as a responsibility or citizenship report.
- III. The Role of the Management Accountant (LO 3)
 - a. Line and Staff Positions
 - i. Positions that have direct responsibility for the basic objectives of an organization are referred to as line positions.
 - (a) In general, individuals in line positions participate in activities that produce and sell their company's product or service.
 - (b) The managers in line positions are the ones who set policy and make the decisions that impact production.
 - ii. Positions that are supportive in nature and have only indirect responsibility for an organization's basic objectives are called staff positions.
 - iii. The controller (chief accounting officer)
 - (a) Supervises all accounting departments.
 - (b) Responsible for both internal and external accounting requirements. This may include
 - (1) Direct responsibility for internal auditing
 - (2) Cost accounting

- (3) Financial accounting (including Securities and Exchange Commission [SEC] reports and financial statements)
 - (4) Systems accounting (including analysis, design, and internal controls), budgeting support, economic analysis, and taxes.
- iv. The Treasurer
 - (a) The treasurer is responsible for the finance function. Specifically, the treasurer raises capital and manages cash (banking and custody), investments, and investor relations.
 - (b) The treasurer may also be in charge of credit and collections as well as insurance.
- b. Information for Planning, Controlling, Continuous Improvement, and Decision Making
 - i. Planning
 - (a) The detailed formulation of future actions to achieve a particular end is the management activity called planning.
 - (b) Planning requires setting objectives and identifying methods to achieve those objectives.
 - ii. Controlling
 - (a) The processes of monitoring a plan's implementation and taking corrective action as needed are referred to as controlling.
 - (b) Control is usually achieved with the use of feedback.
 - (1) Feedback is information that can be used to evaluate or correct the steps that are actually being taken to implement a plan.
 - (c) Accounting reports that provide feedback by comparing planned (budgeted) data with actual data are called performance reports.
 - (d) Revenue and spending targets must be based (as closely as possible) on actual operating conditions.
 - iii. Continuous Improvement
 - (a) A company pursuing continuous improvement has the goal of performing better than before and better than competitors.
 - (b) In practical terms, continuous improvement is increasing overall efficiency by reducing waste, improving quality, and reducing costs.
 - (c) Importance of cost management in continuous improvement:
 - (1) Provides information that helps identify ways to improve and then reports on the progress of the methods that have been implemented.

- (2) Develops a control system that locks in and maintains any improvements realized.
- iv. Decision Making
 - (a) The process of choosing among competing alternatives is decision making.
 - (b) One of the major roles of the accounting information system is to supply information that facilitates decision making. This pervasive managerial function is an important part of both planning and control.
 - (c) Managers must choose among competing objectives and methods to carry out the chosen objectives. Only one of numerous mutually exclusive plans can be chosen.
- c. Certification
 - i. Three of the major certifications available:
 - (a) Certificate in Management Accounting
 - (b) Certificate in Public Accounting
 - (c) Certificate in Internal Auditing
 - ii. All three certifications offer evidence that the holder has achieved a minimum level of professional competence.
 - iii. All three certifications require the holder to engage in continuing professional education in order to maintain certification.
 - iv. Because certification reveals a commitment to professional competency, most organizations encourage their management accountants to be certified.
- d. The Certificate in Management Accounting
 - i. In 1974, the Institute of Management Accountants (IMA) developed the Certificate in Management Accounting to meet the specific needs of management accountants.
 - ii. A Certified Management Accountant (CMA) has passed a rigorous qualifying examination, has met an experience requirement, and participates in continuing education.
 - iii. Qualifying examination for CMA certificate:
 - (a) Parts:
 - (1) Technology and Analytics
 - (2) Strategic Financial Management
 - (b) Each part has a four-hour examination and consists of 100 multiple-choice questions, as well as two essays.
 - iv. One of the main purposes of creating the CMA program was to establish management accounting as a recognized, professional discipline, separate from the profession of public accounting.
 - v. Many firms now sponsor and pay for classes that prepare their management accountants for the qualifying examination, as well as provide other financial incentives to encourage acquisition of the CMA certificate.

- e. The Certificate in Public Accounting
 - i. The purpose of the Certificate in Public Accounting is to provide evidence of a minimal professional qualification for external auditors.
 - ii. The responsibility of external auditors is to provide assurance concerning the reliability of the information contained in a firm's financial statements.
 - iii. Only Certified Public Accountants (CPAs) are permitted (by law) to serve as external auditors.
 - (a) CPAs must pass a national examination and be licensed by the state in which they practice.
 - iv. Although the Certificate in Public Accounting does not focus as heavily on management accounting as the CMA, many management accountants hold it because of its widespread recognition across business.
- f. The Certificate in Internal Auditing
 - i. To attain the status of a Certified Internal Auditor (CIA), an individual must pass a comprehensive examination designed to ensure technical competence and have two years' work experience.

IV. Accounting and Ethical Conduct (LO 4)

- i. Business ethics is learning what is right or wrong in the work environment and choosing what is right.
 - (a) Business ethics could also be described as the science of conduct for the work environment.
- ii. Principles of personal ethical behavior include concern for the well-being of others, respect for others, trustworthiness and honesty, fairness, doing good, and preventing harm to others.
- iii. For professionals such as accountants, managers, engineers, and physicians, ethical behavior principles can be expanded to include concepts such as objectivity, full disclosure, confidentiality, due diligence, and avoiding conflicts of interest.
- a. Benefits of Ethical Behavior
 - i. Companies with a strong code of ethics can create strong customer and employee loyalty.
 - ii. Observing ethical practices now can avoid later litigation costs.
 - iii. Companies in business for the long term find that it pays to treat all of their constituents honestly and fairly.
 - iv. A company that values people more than profit and is viewed as operating with integrity and honor is more likely to be a commercially successful and responsible business.
- b. Standards of Ethical Conduct for Management Accountants

- i. All firms subject to the Sarbanes-Oxley Act must disclose whether they have established a code of ethics for senior financial officers and, if not, must explain why.
- ii. Although a code of ethics is not mandated by law, it certainly is encouraged strongly.
- iii. In addition to establishing a code of ethics, most companies have established ethics training programs and whistle-blower hotlines or other mechanisms for employees to report ethical behavioral breakdowns within their company.
- iv. Investors and other key stakeholders increasingly expect companies to measure and disclose evidence of highly ethical behavior.
 - (a) Example: Cleveland Clinic, one of the top-rated hospitals in the world, enthusiastically discloses its frequent inclusion by the Ethisphere Institute as one of the World's Most Ethical Companies.
- v. The Institute of Management Accountants (IMA) has established ethical standards for management accountants.
 - (a) Standards:
 - (1) Competence
 - (i) Maintain an appropriate level of professional leadership and expertise by enhancing knowledge and skills.
 - (ii) Perform professional duties in accordance with relevant laws, regulations, and technical standards.
 - (iii) Provide decision support information and recommendations that are accurate, clear, concise, and timely. Recognize and help manage risk.
 - (2) Confidentiality
 - (i) Keep information confidential except when disclosure is authorized or legally required.
 - (ii) Inform all relevant parties regarding appropriate use of confidential information. Monitor to ensure compliance.
 - (iii) Refrain from using confidential information for unethical or illegal advantage.
 - (3) Integrity
 - (i) Mitigate actual conflicts of interest. Regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts of interest.

- (ii) Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
 - (iii) Abstain from engaging in or supporting any activity that might discredit the profession.
 - (iv) Contribute to a positive ethical culture and place integrity of the profession above personal interests.
- (4) CREDIBILITY
 - (i) Communicate information fairly and objectively.
 - (ii) Provide all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
 - (iii) Report delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.
 - (iv) Communicate professional limitations or other constraints that would preclude responsible judgment or successful performance of an activity.
- vi. Resolution of the conflict may be as simple as chatting with the vice president, explaining the difficulty, and obtaining permission to disclose the layoff.

[\[return to top\]](#)

COMPLETE LIST OF CHAPTER ACTIVITIES AND ASSESSMENTS

Refer to the Educator Guide for this list and correlation to the previous edition.

[\[return to top\]](#)

Instructor Manual

Hansen, Mowen, Heitger, Cost Management, 6e, 2026, 9798214044866;
Chapter 1: Introduction to Cost Management

TABLE OF CONTENTS

Purpose and Perspective of the Chapter	2
Chapter Objectives	2
What's New in This Chapter	2
Key Terms	2
Chapter Outline.....	5
Complete List of Chapter Activities and Assessments	16

PURPOSE AND PERSPECTIVE OF THE CHAPTER

The purpose of the chapter is to provide an understanding of cost management and its role in decision-making within organizations. It explains how cost management differs from financial accounting by focusing on internal reporting, cost control, and strategic planning rather than external financial statements. This chapter also identifies key factors and trends influencing cost management, such as technological advancements and global competition. Additionally, it describes the role of management accountants, highlighting their responsibilities in budgeting, performance evaluation, and strategic analysis. Lastly, it emphasizes the importance of ethical behavior for management accountants, ensuring integrity, transparency, and compliance with professional standards.

CHAPTER OBJECTIVES

The following objectives are addressed in this chapter:

1. Explain how cost management differs from financial accounting.
2. Identify factors and trends affecting the use of cost management.
3. Describe how management accountants function within an organization.
4. Understand the importance of ethical behavior for management accountants.

[\[return to top\]](#)

WHAT'S NEW IN THIS CHAPTER

Please download the Transition Guide for a detailed list of the changes to this chapter from the previous edition.

[\[return to top\]](#)

KEY TERMS

- **Accounting information system:** A system consisting of interrelated manual and computer parts that uses processes such as collecting, recording, summarizing, analyzing (using decision models), and managing data to provide output information to users.
- **Activity-based management:** An advanced control system that focuses management's attention on activities with the objective of improving the value received by the customer and the profit received by providing this value.

It includes driver analysis, activity analysis, and performance evaluation and draws on activity-based costing as a major source of information.

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[\[return to top\]](#)

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 - (i) If not, then the cost system must produce two sets of product costs: one that satisfies financial reporting criteria and one that satisfies management decision-making needs.
 - (b) Operational control information system
 - (1) It is a cost management subsystem designed to provide accurate and timely feedback concerning the performance of managers and others relative to their planning and control of activities.
 - (2) Operational control is concerned with what activities should be performed and assessing how well they are performed. It focuses on identifying opportunities for improvement and helping to find ways to improve.
 - (3) A good operational control information system provides information that helps managers engage in

a program of continuous improvement of all aspects of their businesses.

(4) Objectives of an operational control system:

- (i) To improve the value received by customers:
Products and services should be produced that fit specific customer needs.
- (ii) To improve profits by providing this value:
Well-designed, quality products that are affordable can be offered only if they also provide an acceptable return to the owners of the company.

II. Factors Affecting the Use of Cost Management (LO 2)

a. Global Competition

- i. Several decades ago, firms neither knew nor cared what similar firms in Japan, Brazil, India, Germany, Africa, and China were producing. These foreign firms were not competitors because their markets were separated by geographical distance.
 - (a) Now, both small and large firms are affected by the opportunities and challenges offered by global competition.
- ii. For example, Apple manufactures over 500,000 iPhones every day in a Chinese factory with more than 200,000 employees and ships them around the world aboard massive Boeing 747 jets.
- iii. Improved transportation and communication in conjunction with higher quality products that carry lower prices have upped the ante for all firms. This global competitive environment has increased the demand not only for more cost information but also for more accurate cost information.
- iv. Cost information plays a vital role in reducing costs, improving productivity, and assessing product-line profitability.

b. Growth in the Service Industry

- i. The service industry—including financial services, transportation, technology, medical, and travel—represents a significant and growing portion of the economy. For example, the global financial services market is estimated at approximately \$25 trillion.
- ii. The service industry now comprises approximately three quarters of the U.S. economy and employment.
- iii. New products oftentimes spur the use of new services in order to function as customers desire, such as cars that utilize navigation services and smart televisions that utilize streaming services.
- iv. The gig economy, which refers to the use of short-term contracts to provide a service, represents one of the most impactful newer service sectors.

- (a) For example, many well-known startup service companies, such as Airbnb, Instacart, and Uber, have arisen out of the gig economy.
- v. The significant growth in the service industry has made managers in the industry more conscious of the need to have accurate cost information for planning, controlling, continuous improvement, and decision making.
- vi. The changes in the service sector add to the demand for innovative and relevant cost management information.
- c. Advances in Information Technology and the Manufacturing Environment
 - i. Enterprise resource planning (ERP) software can provide an integrated system capability—a system that can run all the operations of a company and provide access to real-time data from the various functional areas of a company spanning the entire value chain.
 - (a) Analyzing this real-time data enables managers to continuously improve the efficiency of organizational units and processes.
 - (b) For example, UPS utilizes its multibillion-dollar investments in information technology to provide customers with cutting-edge services, such as processing an astonishing 295 million daily package tracking requests from customers.
 - ii. Activity-based costing (ABC) software is classified as online analytic software and facilitates improved decision making around areas such as cost estimation, product pricing, and planning and budgeting.
 - (a) This vast computing capability now makes it possible for accountants to generate individualized reports on an as-needed basis.
 - iii. The theory of constraints is a method used to continuously improve manufacturing and nonmanufacturing activities.
 - iv. Just-in-time (JIT) manufacturing, strives to produce a product only when it is needed and only in the quantities demanded by customers.
 - (a) JIT is a critical part of a more comprehensive approach referred to as lean manufacturing—the persistent pursuit and elimination of waste that simultaneously embodies respect for people.
 - (b) Depending on the nature of the value streams created in lean manufacturing, a more accurate assessment of product costs may result.

- d. Cybersecurity and Data Privacy
 - i. The explosion in hacking and malware has led companies to emphasize data and cybersecurity. Dedicated professionals identify threats and shore up company defenses against them.
 - ii. The proliferation of the cyberthreats has also led to an increased emphasis on data privacy as both internal company data and customer data must be guarded against falling into the wrong hands.
 - iii. Cost and managerial accountants are important members of the data security teams.
- e. Customer Orientation
 - i. Companies increasingly utilize advances in digital information technologies, including data analytics, to estimate the profitability of their current and potential future customers.
 - ii. Accountants and managers refer to a firm's value chain as the set of activities required to design, develop, produce, market, and deliver products and services to customers.
 - (a) As a result, a key question to be asked about any process or activity is whether it is important to the customer.
 - iii. The cost management system must track information relating to a wide variety of activities important to customers (e.g., product quality, environmental performance, new product development, and delivery performance).
 - (a) Activity-based management identifies the activities produced at each stage of the development process and assesses their costs.
 - (b) Target costing encourages managers to assess the overall cost impact of product designs over the product's life cycle and simultaneously provides incentives to make design changes to reduce costs.
 - iv. Companies must compete not only in technological and manufacturing terms but also in terms of the speed of delivery and response.
 - (a) Example: Firms such as FedEx have exploited this desire by identifying and developing a market the U.S. Postal Service could not serve.
 - v. Companies have internal customers as well. The staff functions of a company exist to serve the line functions.
 - (a) Accounting departments that are "customer driven" assess the value of the reports to be sure that they communicate significant information in a timely and readable fashion.
- f. Total Quality Management
 - i. A philosophy of total quality management, in which managers strive to create an environment that will enable organizations to

produce defect-free products and services, has replaced the acceptable quality attitudes of the past.

- ii. The emphasis on quality applies to services as well as products.
- iii. Objective: Pursuing an objective of high-quality promises major benefits.

- (a) Cost management supports this objective by providing crucial information concerning quality-related activities and quality costs.

g. Data Analytics

- i. Data analytics generally refers to the practice of identifying and analyzing appropriate data and then communicating the resulting insights to help improve organizational decision making.

- (a) For example, executives increasingly expect their accountants to utilize data analytics in forecasting the financial consequences of various decisions.

- ii. Applications of data analytics:

- (a) Forecasting—Using analytical tools and data mining techniques to discover key and relevant trends, both historical and predictive in nature.

- (b) Budgeting—Projecting the amount and timing of financial and operational resources required to allow the organization to achieve its long-term strategic goals.

- (c) Extraction—Identifying, transforming, and querying the data necessary to conduct important financial analyses that often involve multiple data sets and information systems.

- (d) Governance—Considering the degree of accuracy, decision relevance, and security of the increasing amount and types of data used in various financial estimates, including those involving enterprise risk management issues.

- (e) Visualization—Determining how best to present complex analytical tools and organizational performance results in a manner that is transparent and understandable to investors and other key stakeholders.

h. Forensic Accounting

- i. Forensic accounting is the action of identifying, recording, settling, extracting, reporting, and verifying past financial data or other accounting activities for settling current or prospective legal disputes or using such past financial data for projecting future financial data to settle legal disputes.

- ii. Forensic accountants provide accounting measurement services in several different but related areas:

- (a) Fraud investigations (i.e., finding fraud and measuring the cost of resulting damages, preventing or minimizing fraud, and testifying in fraud cases);

- (b) Litigation support (i.e., litigation consulting, preparing expert opinion reports, and testifying at trials or in other formats)
 - (c) Performing business valuations (i.e., both adversarial and non-adversarial)
 - i. Business Sustainability
 - i. Business sustainability refers to a company's ability to create value over the long term by measuring performance, managing risks, and communicating effectively to key stakeholders in a manner that consistently reflects the achievement of its strategy.
 - ii. Stakeholders increasingly desire information that can help them assess the company's business sustainability performance, which a growing number of investors interpret as a leading indicator of future financial performance.
 - iii. Business sustainability disclosures pertain to numerous issues:
 - (a) The company's employee safety at overseas clothing manufacturing plants
 - (b) Compliance with Environmental
 - (c) Protection Agency rules on air, soil, and water pollution
 - (d) Status regarding product and service innovation efforts
 - (e) Carbon emissions across product and service life cycles
 - (f) Supplier selection processes
 - (g) Employee engagement endeavors
 - iv. Companies typically include these disclosures in an annual corporate sustainability report (CSR), also referred to as a responsibility or citizenship report.
- III. The Role of the Management Accountant (LO 3)
 - a. Line and Staff Positions
 - i. Positions that have direct responsibility for the basic objectives of an organization are referred to as line positions.
 - (a) In general, individuals in line positions participate in activities that produce and sell their company's product or service.
 - (b) The managers in line positions are the ones who set policy and make the decisions that impact production.
 - ii. Positions that are supportive in nature and have only indirect responsibility for an organization's basic objectives are called staff positions.
 - iii. The controller (chief accounting officer)
 - (a) Supervises all accounting departments.
 - (b) Responsible for both internal and external accounting requirements. This may include
 - (1) Direct responsibility for internal auditing
 - (2) Cost accounting

- (3) Financial accounting (including Securities and Exchange Commission [SEC] reports and financial statements)
 - (4) Systems accounting (including analysis, design, and internal controls), budgeting support, economic analysis, and taxes.
 - iv. The Treasurer
 - (a) The treasurer is responsible for the finance function. Specifically, the treasurer raises capital and manages cash (banking and custody), investments, and investor relations.
 - (b) The treasurer may also be in charge of credit and collections as well as insurance.
- b. Information for Planning, Controlling, Continuous Improvement, and Decision Making
 - i. Planning
 - (a) The detailed formulation of future actions to achieve a particular end is the management activity called planning.
 - (b) Planning requires setting objectives and identifying methods to achieve those objectives.
 - ii. Controlling
 - (a) The processes of monitoring a plan's implementation and taking corrective action as needed are referred to as controlling.
 - (b) Control is usually achieved with the use of feedback.
 - (1) Feedback is information that can be used to evaluate or correct the steps that are actually being taken to implement a plan.
 - (c) Accounting reports that provide feedback by comparing planned (budgeted) data with actual data are called performance reports.
 - (d) Revenue and spending targets must be based (as closely as possible) on actual operating conditions.
 - iii. Continuous Improvement
 - (a) A company pursuing continuous improvement has the goal of performing better than before and better than competitors.
 - (b) In practical terms, continuous improvement is increasing overall efficiency by reducing waste, improving quality, and reducing costs.
 - (c) Importance of cost management in continuous improvement:
 - (1) Provides information that helps identify ways to improve and then reports on the progress of the methods that have been implemented.

- (2) Develops a control system that locks in and maintains any improvements realized.
- iv. Decision Making
 - (a) The process of choosing among competing alternatives is decision making.
 - (b) One of the major roles of the accounting information system is to supply information that facilitates decision making. This pervasive managerial function is an important part of both planning and control.
 - (c) Managers must choose among competing objectives and methods to carry out the chosen objectives. Only one of numerous mutually exclusive plans can be chosen.
- c. Certification
 - i. Three of the major certifications available:
 - (a) Certificate in Management Accounting
 - (b) Certificate in Public Accounting
 - (c) Certificate in Internal Auditing
 - ii. All three certifications offer evidence that the holder has achieved a minimum level of professional competence.
 - iii. All three certifications require the holder to engage in continuing professional education in order to maintain certification.
 - iv. Because certification reveals a commitment to professional competency, most organizations encourage their management accountants to be certified.
- d. The Certificate in Management Accounting
 - i. In 1974, the Institute of Management Accountants (IMA) developed the Certificate in Management Accounting to meet the specific needs of management accountants.
 - ii. A Certified Management Accountant (CMA) has passed a rigorous qualifying examination, has met an experience requirement, and participates in continuing education.
 - iii. Qualifying examination for CMA certificate:
 - (a) Parts:
 - (1) Technology and Analytics
 - (2) Strategic Financial Management
 - (b) Each part has a four-hour examination and consists of 100 multiple-choice questions, as well as two essays.
 - iv. One of the main purposes of creating the CMA program was to establish management accounting as a recognized, professional discipline, separate from the profession of public accounting.
 - v. Many firms now sponsor and pay for classes that prepare their management accountants for the qualifying examination, as well as provide other financial incentives to encourage acquisition of the CMA certificate.

- e. The Certificate in Public Accounting
 - i. The purpose of the Certificate in Public Accounting is to provide evidence of a minimal professional qualification for external auditors.
 - ii. The responsibility of external auditors is to provide assurance concerning the reliability of the information contained in a firm's financial statements.
 - iii. Only Certified Public Accountants (CPAs) are permitted (by law) to serve as external auditors.
 - (a) CPAs must pass a national examination and be licensed by the state in which they practice.
 - iv. Although the Certificate in Public Accounting does not focus as heavily on management accounting as the CMA, many management accountants hold it because of its widespread recognition across business.
- f. The Certificate in Internal Auditing
 - i. To attain the status of a Certified Internal Auditor (CIA), an individual must pass a comprehensive examination designed to ensure technical competence and have two years' work experience.

IV. Accounting and Ethical Conduct (LO 4)

- i. Business ethics is learning what is right or wrong in the work environment and choosing what is right.
 - (a) Business ethics could also be described as the science of conduct for the work environment.
- ii. Principles of personal ethical behavior include concern for the well-being of others, respect for others, trustworthiness and honesty, fairness, doing good, and preventing harm to others.
- iii. For professionals such as accountants, managers, engineers, and physicians, ethical behavior principles can be expanded to include concepts such as objectivity, full disclosure, confidentiality, due diligence, and avoiding conflicts of interest.
- a. Benefits of Ethical Behavior
 - i. Companies with a strong code of ethics can create strong customer and employee loyalty.
 - ii. Observing ethical practices now can avoid later litigation costs.
 - iii. Companies in business for the long term find that it pays to treat all of their constituents honestly and fairly.
 - iv. A company that values people more than profit and is viewed as operating with integrity and honor is more likely to be a commercially successful and responsible business.
- b. Standards of Ethical Conduct for Management Accountants

- i. All firms subject to the Sarbanes-Oxley Act must disclose whether they have established a code of ethics for senior financial officers and, if not, must explain why.
- ii. Although a code of ethics is not mandated by law, it certainly is encouraged strongly.
- iii. In addition to establishing a code of ethics, most companies have established ethics training programs and whistle-blower hotlines or other mechanisms for employees to report ethical behavioral breakdowns within their company.
- iv. Investors and other key stakeholders increasingly expect companies to measure and disclose evidence of highly ethical behavior.
 - (a) Example: Cleveland Clinic, one of the top-rated hospitals in the world, enthusiastically discloses its frequent inclusion by the Ethisphere Institute as one of the World's Most Ethical Companies.
- v. The Institute of Management Accountants (IMA) has established ethical standards for management accountants.
 - (a) Standards:
 - (1) Competence
 - (i) Maintain an appropriate level of professional leadership and expertise by enhancing knowledge and skills.
 - (ii) Perform professional duties in accordance with relevant laws, regulations, and technical standards.
 - (iii) Provide decision support information and recommendations that are accurate, clear, concise, and timely. Recognize and help manage risk.
 - (2) Confidentiality
 - (i) Keep information confidential except when disclosure is authorized or legally required.
 - (ii) Inform all relevant parties regarding appropriate use of confidential information. Monitor to ensure compliance.
 - (iii) Refrain from using confidential information for unethical or illegal advantage.
 - (3) Integrity
 - (i) Mitigate actual conflicts of interest. Regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts of interest.

- (ii) Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
 - (iii) Abstain from engaging in or supporting any activity that might discredit the profession.
 - (iv) Contribute to a positive ethical culture and place integrity of the profession above personal interests.
- (4) CREDIBILITY
 - (i) Communicate information fairly and objectively.
 - (ii) Provide all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
 - (iii) Report delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.
 - (iv) Communicate professional limitations or other constraints that would preclude responsible judgment or successful performance of an activity.
- vi. Resolution of the conflict may be as simple as chatting with the vice president, explaining the difficulty, and obtaining permission to disclose the layoff.

[\[return to top\]](#)

COMPLETE LIST OF CHAPTER ACTIVITIES AND ASSESSMENTS

Refer to the Educator Guide for this list and correlation to the previous edition.

[\[return to top\]](#)