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# Managerial Accounting

## The Cornerstone of Business Decision Making

8E

Mowen // Hansen // Heitger

Eighth Edition

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## The Cornerstone of Business Decision Making

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**Managerial Accounting: The Cornerstone of Business Decision Making, Eighth Edition**
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Designer: Chris Doughman

Cover Image Source: Vertigo3d/E+/Getty Images



Library of Congress Control Number: 2021923382

ISBN: 978-0-357-71534-5

**Cengage**
200 Pier 4 Boulevard
Boston, MA 02210
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Printed in the United States of America
Print Number: 01 Print Year: 2022

*This book is dedicated to our students—past, present, and future—*
*who are at the heart of our passion for teaching.*

# Brief Contents

Dear Colleagues,

We have been teaching managerial accounting for decades. We love it and believe strongly that managerial accounting is one of the most important courses in the business curriculum! Since it is one of the first business courses students take, we work to share our love and enthusiasm for the material and to show each student that managerial accounting is both FUN and RELATABLE to their current life, as well as to their future.

We wrote this book because there was no other book available that helped us reach the wide variety of students we see each term. Reaching students is a challenge because:

- There is so much material to teach that instructors don't have time for the "fun stuff;"
- Students don't connect the detail with the big picture;
- Many students juggle jobs, family, and other commitments, so they are pressed for time—their time in the class must be optimized for understanding;
- Managerial accounting is not as straightforward as financial, and students must develop judgment skills in addition to absorbing material;
- There is a tremendous diversity of students (incoming skills, language, etc.); and
- There is no standard road map to teach the course (i.e., the balance sheet).

Our approach is to make the entire managerial accounting experience for instructors and students ***timely, meaningful, fun, and relatable***. This edition contains numerous new features that achieve these goals in a way that positively sets our book apart from all other managerial accounting books. For instance, we have responded to the increasing importance of data analytics in business by infusing data analytics throughout the text. Each chapter relates data analytics to that chapter's topics. A few end-of-chapter exercises also include data analytics. Flexibility for instructors is key, so each exercise is spotlighted with a special icon making it easy for you to add as much or as little emphasis as you find appropriate for your classes. Our unique "*Here's How It's Used*" pedagogy enables students to enjoy the process of developing a deeper understanding of managerial accounting and its implications for themselves, as well as businesses. Our watchwords are how and why:

1. ***Structured Examples Show How and Why*** Clear, step-by-step examples and selected end-of-chapter activities are carefully linked to enable students to quickly gather the information necessary to solve managerial accounting problems efficiently. Each example tells why and how to solve the problem. This approach enables students to focus on the implications of the decision rather than just the associated calculations.

2. ***Here's How It's Used Examples*** Numerous interesting and relatable real-world examples demonstrate the importance of managerial accounting to improved decision making. These real-world examples involve big and small businesses, non-profits, and issues students actually face in their own lives. The quality and prevalence of these real-world applications throughout the text help motivate students to study managerial accounting topics as they see how those topics apply to businesses and to their own lives.

3. ***Revised and Updated Opening Scenarios*** Students see how familiar companies, such as Apple, Cold Stone Creamery, and Hard Rock Cafe, use managerial accounting information to make better decisions. The featured company is referenced throughout the chapter to emphasize the importance of managerial accounting concepts in the real world. Completely revised chapter openers include Costco (Chapter 2, Basic Managerial Accounting Concepts), Beyond Petroleum (Chapter 6, Process Costing), and Alphabet (Chapter 14, Statement of Cash Flows).

Using our text, you don't need to spend as much valuable class time teaching "how," you can focus on "why."

- Examples are built around how students work, summarizing key procedures to help students complete homework independently.
- Because students are able to complete homework independently, they do not bombard the instructor with "How do I do this?" type questions.

Students who want to go farther can use:

- ***Blueprint Problems.*** We wrote these expressly to accompany this book and help students expand their understanding.
- ***Blueprint Problems Using Excel.*** We wrote these to help develop students' spreadsheet skills. Students are required to develop their own Excel formulas to solve the problems.
- ***Analyzing Relationships.*** We developed these to help students use a graphical approach to see exactly how changing one or more underlying variables affects a model. These allow students to engage in sensitivity analysis and to consider the related analytical questions. These help to foster analytical skills and to develop judgment and understanding.

Our goal is to improve student understanding and preparedness while allowing you to focus on meaningful applications of managerial accounting to important real-world topics. We believe it will work in your classroom and look forward to teaming up with you to improve your students' success and make managerial accounting *meaningful, fun, and relatable*.

Sincerely,
*Maryanne Mowen, Don Hansen, Dan Heitger*

# New to this Edition

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## I. New Additions to Each Chapter

*Managerial Accounting (8e) focuses on making teaching and learning managerial accounting meaningful, fun, and relatable.* This unique learning approach uses brief video clips, relevant examples, and topical applications to enable students to develop a deeper understanding of managerial accounting and its implications for business. Continuing with this unique focus, this edition infuses **Data Analytics** throughout each chapter to excite students of all majors to learn how data analytics informs managerial accounting and improves decision making throughout the company.

- ***Data Analytics.*** Data analytics is broadly defined to include strategic questions, such as *what*, *why*, and *how* to measure certain performance aspects, as well as interpreting and communicating their decision impacts. This approach provides instructors with ***maximum flexibility*** for demonstrating the *importance* and *prevalence* of data analytics across all areas of managerial accounting. Thus this edition allows instructors to *easily* and *conveniently* utilize data analytics within their course *to the degree they desire* ranging from a brief introduction to a more in-depth focus across any and all chapters throughout the book. Each chapter applies data analytics via
    - Text discussions of real-world applications
    - *Here's How It's Used* real-world examples (e.g., In Your Life, Business Sustainability, at Real Companies)
    - End-of-chapter content of all types, including Discussion Questions, Multiple-Choice Questions, and Exercises
    - Various data analytics applications that help students see how data can be presented pictorially to enhance managerial understanding of data trends

Data analytic example applications include relevant costing at NFL stadiums, process costing at Crayola, budgeting at Driscoll, and return on investment by small sellers on eBay and Amazon. Finally, data analytics applications are spotlighted with a dedicated icon in the margin to make it easy for instructors to include. As a result, *this book works effectively for students and instructors of any and all levels of data analytic interest and expertise*.

- ***New Excel Exercises.*** Excel exercises were added to the end of chapter to give students the opportunity to develop and apply this important data-analytic skill. These exercises are identified by both an Excel icon and a Data Analytics icon.
- ***Revised And Expanded "Making The Connection" Problems.*** The three "Making the Connection" problems are comprehensive in nature and integrate material from two or more chapters, including the application of data analytics. These unique problems help students see the big picture as they must apply managerial accounting topics across chapters just as they are expected to do in the real world.

## II. Updated Pedagogical Features

As noted, the focus of the Mowen, Hansen, and Heitger textbook is *to make managerial accounting meaningful, fun, and relatable for both instructors and students*. Keeping with this focus, several meaningful features were added to each chapter in the prior edition. These features are maintained in this edition and thoroughly updated with new and timely examples.

- ***Best-in-Class Real World Examples.*** Numerous new, interesting, and relatable real-world examples help instructors demonstrate to students the importance of managerial accounting to improved business decision making. The quality and prevalence of these real-world applications help instructors motivate students to study managerial accounting topics as they see how the topics apply to businesses and their own lives.
- ***Updated "Here's How It's Used" Features.*** Many "Here's How It's Used" boxes are updated to reflect the growing importance of service and technology firms. Some of these updated boxes also point out the use of data analytics by real companies. Examples include relevant costing at NFL stadiums, process costing at Crayola, budgeting at Driscoll, Inc., berry growers, and the return on investment by small sellers on eBay and Amazon. The "Here's How It's Used" boxes that illustrate data analytics are identified with a Data Analytics icon so that instructors can easily identify them. Data Analytics
- ***Revised and Updated Opening Scenarios.*** Students see how familiar companies, such as Apple, Cold Stone Creamery, and Hard Rock Cafe use managerial accounting information to make better decisions. The featured company is referenced throughout the chapter to emphasize the importance of managerial accounting concepts in the real world. Chapter openers for this edition were completely revised in three chapters—Chapter 2: Costco (Basic Managerial Accounting Concepts), Chapter 6: Beyond Petroleum (Process Costing), and Chapter 14: Alphabet (Statement of Cash Flows).

## III. Increased Depth and Currency of Material

We continue to update and freshen the material in the text. For example, the impact of the coronavirus pandemic on businesses is explored in various management accounting settings. Chapter 13 on Emerging Topics in Managerial Accounting has been expanded to illustrate the role of data analytics in decision making and business sustainability (i.e., Environmental, Social, and Governance challenges).

Our strong belief is that these additions and changes maintain all of the positive aspects of our previous editions that current users enjoy and appreciate, while significantly improving the managerial accounting experience for students and instructors alike. This new edition helps students to learn firsthand that managerial accounting is ***timely, meaningful, fun***, and ***relatable*** to their everyday lives!

# Acknowledgments and Thanks

Thank you to the following instructors who contributed to the development of the 8th edition of *Managerial Accounting: The Cornerstone of Business Decision Making*. By reviewing, verifying, or participating in focus groups, you allowed us to create a text that will benefit all of our students and instructors that use this text.

Janice Akao, *Butler Community College*
Michael Alles, *Rutgers Business School*
Cornelia Alsheimer, *Santa Barbara City College*
Linda Amann, *University of Wisconsin–Whitewater*
Julie Armstrong, *St. Clair County Community College*
Elise Bartley, *Westminster College*
Nancy Batch, *Texas A&M–San Antonio*
Robert Beatty, *Anne Arundel Community College*
Connie Belden, *Butler Community College*
Pamela S. Benner, *Stark State College*
Debbie Benson, *Kennesaw State University*
Dr. Timothy B. Biggart, *Berry College*
Eric Blazer, *Millersville University*
Cindy Bleasdale, *Hilbert College*
Marie Blouin, *Ithaca College*
Maryann Bolton, *Central Community College–Hastings Campus*
Marian W. Boscia, *King's College*
Anna Boulware, *St. Charles Community College*
Amy Bourne, *Oregon State University*
Thomas J. Bradley, *Ashford University*
Rachel Brassine, *East Carolina University*
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Rodney Carmack, *Arkansas State University*
Sandra Cereola, *James Madison University*
Richard Chen, *Eastern Kentucky University*
Bea Chiang, *The College of New Jersey*
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Robert Foster, *California State University, Northridge*
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Julie Goodin, *Immaculata University*
Andrea Gouldman, *Weber State University*
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Mary Beth Nelson, *North Shore Community College*
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Angela Pannell, *Mississippi State University*
Laurel Parrilli, *Cornell University*
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Kristen Quinn, *Northern Essex Community College*
Donna McGovern, *B.S. Accounting*
Connie Belden, *Butler Community College*
Rama Ramamurthy, *Georgetown University*
Paulette Ratliff-Miller, *Grand Valley State University*
Barbara Reider, *University of Montana*
Barbara Rice, *Gateway Community and Technical College*
Vernon Richardson, *University of Arkansas*
Constance Rodriguez, *SUNY Brockport*
Paulette Rodriguez, *The University of Texas at El Paso*
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Patricia Worsham, *Norco College*
Gail Wright, *Castleton University*
Jennifer Yin, *University of Texas at San Antonio*
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*Dr. Don R. Hansen* is Professor Emeritus of Oklahoma State University. He received his Ph.D. from the University of Arizona in 1977. He has an undergraduate degree in mathematics from Brigham Young University. He has published articles in both accounting and engineering journals including The Accounting Review, The Journal of Management Accounting Research, Accounting Organizations and Society, Accounting Horizons, and IIE Transactions. He has served on the editorial board of *The Accounting Review*. His outside interests include family, church activities, reading, movies, and watching sports.

*Dr. Dan L. Heitger* is the Deloitte Professor of Accounting and Co-Director of the William Isaac & Michael Oxley Center for Business Leadership at Miami University. He received his Ph.D. from Michigan State University and his undergraduate degree in accounting from Indiana University. He actively works with executives and students of all levels in developing and teaching courses in managerial accounting, business sustainability, risk management, stakeholder management, governance, and business reporting. He co-founded an organization that provides executive education for large international organizations. His interactions with business professionals, through executive education and the Center, allow him to bring a current and real-world perspective to his writing. His published research focuses on managerial accounting and risk management issues and has appeared in Harvard Business Review, Behavioral Research in Accounting, Accounting Horizons, Issues in Accounting Education, Journal of Accountancy, and Management Accounting Quarterly. His outside interests include hiking with his family in the National Park system.

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Eighth Edition

# Managerial Accounting

## The Cornerstone of Business Decision Making

# 1 Introduction to Managerial Accounting

**After studying Chapter 1, you should be able to:**

1. Explain the meaning of managerial accounting.
2. Explain the differences between managerial accounting and financial accounting.
3. Explain the current focus of managerial accounting.
4. Describe the role of managerial accountants in an organization.
5. Explain the importance of ethical behavior for managers and managerial accountants.
6. Identify three forms of certification available to managerial accountants.

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## Experience Managerial Decisions

*with BuyCostumes.com*

The greatest benefit of managerial accounting is also its biggest challenge—to provide managers with information that improves decisions and creates organizational value. This information helps inform managers about the impact of various strategic and operational decisions on key nonfinancial performance measures and their eventual impact on the organization's financial performance. The information is challenging to prepare and analyze because it requires an understanding of all value chain components that affect the organization, including research and development, production, marketing, distribution, and customer service.

Since its inception in 1999, **BuyCostumes.com** has blended the right managerial accounting information and an innovative business model to provide over 10 billion costume combinations to millions of customers all over the world. Using the Internet and marketing creativity, BuyCostumes.com serves a growing market of consumers. For example, U.S. consumers spend over $3 billion each year on Halloween costumes for adults, children, and even pets (over 30 million Americans dress up their pets for Halloween)!

"Using the Internet and marketing creativity, BuyCostumes.com serves the millions of U.S. consumers who collectively spend $3 billion on Halloween costumes each year."

According to BuyCostumes.com's CEO, the company measures key performance indicators to guide its decision making. For example, managerial accountants analyze measures of customer satisfaction, average time between order placement and costume arrival for each shipping method, and the profitability of individual customer types. As customer trends change, competitors emerge, and technological advances occur, BuyCostumes.com's managerial accounting information adapts to provide crucial insight into the company's performance and how its strategy should evolve to remain one of the world's largest Internet costume retailers.

**Objective 1**

Explain the meaning of managerial accounting.

Here's **Why It's Important**

# The Meaning of Managerial Accounting

What do we mean by managerial accounting? Quite simply, **managerial accounting** is the provision of accounting information for a company's internal users. More specifically, managerial accounting represents the firm's internal accounting system designed to provide the necessary financial and nonfinancial information that helps company managers make the best possible decisions. Unlike financial accounting, managerial accounting is not bound by any formal criteria such as generally accepted accounting principles (GAAP). Managerial accounting has three broad objectives:

Concept Clip

- To provide information for planning the organization's actions.
- To provide information for controlling the organization's actions.
- To provide information for making effective decisions.

Using recent examples from many companies in both the for-profit and not-for-profit sectors, this textbook explains how all manufacturing (e.g., aircraft producer—**Boeing Corporation**), merchandising (e.g., clothing retailer—**American Eagle Outfitters**), and service (e.g., healthcare provider—**Cleveland Clinic**, or online retailer **Amazon.com**) organizations use managerial accounting information and concepts. People in all types of positions—from corporate presidents to graphic designers to hospital administrators—can improve their managerial skills by being well-grounded in the basic concepts and use of managerial accounting information for planning, controlling, and decision making.

The exciting reality is that the importance and scope of managerial accounting information is growing rapidly around the globe. As a result, the demand for businesspeople who possess the ability to create, understand, use, and communicate managerial accounting information continues to grow. Chapter 13 explores special and emerging managerial accounting areas, such as enterprise risk management, lean and quality accounting, corporate sustainability reporting, and fraud and forensic accounting.

## Here's How It's Used: Sustainability

Corporate sustainability measurement and reporting, which includes environmental, social, and governance (ESG), represents one of the fastest growing practices in business, as more than 90% of the world's largest 250 companies prepare and issue such reports. Managerial accounting plays an important role in this exciting aspect of business. Through these reports, companies publicly release to their investors and other key stakeholders (i.e., suppliers, regulators, employees, human rights organizations, environmental groups, customers, etc.) very large quantities of managerial accounting information that traditionally either did not exist or was released only internally. This information is released through optional reports known as environmental, social, and governance reports (e.g., **Coca-Cola**), purpose and impact reports (**McDonald's**), social responsibility reports (e.g., **Target**), or citizenship reports (e.g., **Procter & Gamble**), and sustainability reports (**ExxonMobil**). The release of these reports often occurs because firms want to manage their reputation by preparing and releasing such information themselves, rather than having Internet bloggers, online news sites, and cable news networks publish their own estimates of such information. Some leading companies (e.g., **Clorox**, **Eli Lilly**, **Novo Nordisk**) have even moved so far as to combine their sustainability report with their annual report, thereby resulting in a single, integrated report containing both traditional financial accounting information as well as managerial accounting information.[1] Measuring the nonfinancial aspects of corporate business sustainability, including economic, social, environmental, legal, and political issues, and then linking their impact on the company's financial performance requires the unique insights and expertise of managerial accountants! Chapter 13 examines in detail this growing role of managerial accounting in business sustainability activities and reporting.

1 For a more in-depth discussion of the future of sustainability accounting, see "The KPMG Survey of Sustainability Reporting 2020," taken from KPMG's website, https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/the-time-has-come.pdf.

## Information Needs of Managers and Other Users

Managerial accounting information is needed by a number of individuals. In particular, managers and empowered workers need comprehensive, up-to-date information for the following activities:

- planning
- controlling
- decision making

## Planning

The detailed formulation of action to achieve a particular end is the management activity called **planning**. Planning requires setting objectives and identifying methods to achieve those objectives. For example, a company might set the objective of improving its profitability by increasing its product or service line offerings. **Amazon** pursued this strategy when it attempted to purchase Hollywood studio **MGM** for $8.5 billion. The acquisition would allow Amazon to stream from MGM's library of over 4,000 films (including the James Bond franchise). By increasing customer-desired product or service offerings, companies like Amazon should be able to increase their total sales revenues and, if costs are effectively managed, increase their profitability as well. To realize these benefits, management must develop some specific methods that, when implemented, will lead to the achievement of the desired objective. A plant manager, for example, may start a supplier evaluation program to identify and select suppliers who are willing and able to supply defect-free parts. Empowered workers may be able to identify production causes of defects and to create new methods for producing a product that will reduce scrap and rework and the need for inspection. The new methods should be clearly specified and detailed.

## Controlling

Planning is only half the battle. Once a plan is created, it must be implemented and its implementation monitored by managers and workers to ensure that the plan is being carried out as intended. The managerial activity of monitoring a plan's implementation and taking corrective action as needed is referred to as **controlling**. Control is usually achieved by comparing actual performance with expected performance. This information can be used to evaluate or to correct the steps being taken to implement a plan. Based on the feedback, a manager (or worker) may decide to let the plan continue as is, take corrective action of some type to put the actions back in harmony with the original plan, or do some midstream replanning.

The managerial accounting information used for planning and control purposes can be either financial or nonfinancial in nature. For example, **Duffy Tool and Stamping** saved $14,300 per year by redesigning a press operation. In one department, completed parts (made by a press) came down a chute and fell into a parts tub. When the tub became full, press operators had to stop operation while the stock operator removed the full tub and replaced it with an empty one. Workers redesigned the operation so that each press had a chute with two branches—each leading to a different tub. Now when one tub is full, completed parts are routed into the other tub. The $14,300 savings are a financial measure of the success of the redesign. The redesign also eliminated machine downtime and increased the number of units produced per hour (operational feedback), both of which are examples of nonfinancial performance. Both types of measures convey important information. Often, financial and nonfinancial feedback is given to managers in the form of performance reports that compare the actual data with planned data or other benchmarks.

## Decision Making

The process of choosing among competing alternatives is called **decision making**. This managerial function is intertwined with planning and control in that a manager cannot successfully plan or control the organization's actions without making decisions regarding competing alternatives. For instance, if **BMW** contemplates the possibility of offering a car that runs on gasoline and hydrogen, its ultimate decision would be improved if information about the alternatives (e.g., pertaining to gasoline versus hydrogen versus hybrid combinations of these two automobile fuel options) is gathered and made available to managers. One of the major roles of the managerial accounting information system is to supply information that facilitates decision making. For example, based on managerial accounting information concerning current market size and potential growth opportunities in the costume market, **BuyCostumes.com** decided to sell many different types of costumes internationally in order to best meet customer demand. As a result, the company offers a selection of exclusive and licensed costumes and accessories that equate to over 10 billion costume combinations! This important strategic decision allows BuyCostumes.com to serve as a premier destination for the 10 million global partiers that visit its website each Halloween. Interestingly, since its creation, BuyCostumes.com management has correctly predicted the outcome of each presidential election based on the sales data from its presidential candidate mask collection.

## Here's How It's Used: At Costco

### What Constitutes Managerial Accounting Information?

You are the **Costco** executive who has been chosen to decide whether or not the company should continue its policy of sourcing its finest coffee from Rwanda.

**What types of information should you consider as you decide how best to structure and analyze this important long-term strategic decision? What challenges do you expect to face in making this decision?**

What constitutes managerial accounting information is growing considerably as organizations must make decisions that include the global consequences of their actions, as well as the impact on an increasingly large number of vocal, well-informed, and powerful stakeholders. Stakeholders include the company's customers, suppliers, employees, regulators, politicians, lawmakers, and local community members. Generally speaking, managerial accounting information can be *financial* in nature, such as sales revenue or cost of sales, or *nonfinancial* in nature, such as the number of quality defects or the percentage of manufacturing plants that are inspected for compliance with human rights policies. One of the most exciting—and yet daunting—aspects of managerial accounting is that one can choose to measure *anything*, assuming the resources, information technology, and creativity exist to capture the desired performance measure.

As a Costco executive, one of the first nonfinancial factors you likely would consider measuring is the quality of the Rwandan coffee to ensure that it fulfills Costco's strategic goal of creating a competitive advantage by providing premium coffee to customers. Quality could be defined by the beans' taste, shelf life longevity, or other factors valued by customers. Other important nonfinancial performance measures might include the time required to ship the harvested beans from Rwanda to Costco stores around North America and the presence of a local farming workforce in Rwanda critical to successfully sustaining a long-term supply chain between Rwandan fields and Costco customers.

One of the most important financial items to measure would be the importance to Costco's customers of purchasing premium quality coffee, which could be measured by the additional price they are willing to pay for Rwandan coffee over and above more average quality coffee. Other financial measures might include the cost of harvesting, inspecting, and shipping beans, as well as investments in Rwandan farming communities (e.g., physical infrastructure and schools) that ensure the relationship is sustainable for future generations.

Finally, you should consider how the decision to continue sourcing premium coffee from Rwanda will be perceived by Costco's important stakeholders, including its customers who buy the coffee, suppliers who provide the coffee beans, and government officials in the United States and Rwanda who set trading policies between the two countries. Accurately measuring issues like stakeholder perceptions of such decisions can be difficult because the managerial accountant oftentimes must invent new measures, figure out where the data to create such measures might come from, and estimate how accurate these measures will be once collected.

**The managerial accountant's ability to inform executive decision makers by providing innovative, accurate, and timely performance measures can create an important competitive advantage for the organization by improving its key decisions.**

**Check Point**

1. **Which activity generally occurs first: decision making, planning, or control?**

**Answer:**
Planning usually occurs first to set objectives, followed by controlling to monitor implementation of the planned objectives, and, finally, decision making to choose the best alternative(s).

2. **The desire to attract and retain the most talented workers in a given industry is an example of which activity: decision making, planning, or control?**

**Answer:**
Planning. Setting an objective to improve workforce quality is an example of an important planning activity.

# Financial Accounting and Managerial Accounting

**Objective 2**
Explain the differences between managerial accounting and financial accounting.

Here's **Why It's Important**

There are two basic kinds of accounting information systems: financial accounting and managerial accounting. The company's accounting system should be designed to provide both financial and managerial accounting information. The key point is flexibility—the system should be able to supply different *information* for different *purposes*.

## Financial Accounting

**Financial accounting** is primarily concerned with producing information (financial statements) for *external* users, including investors, creditors, customers, suppliers, government agencies (Food and Drug Administration, Federal Communications Commission, etc.), and labor unions. This information has a historical orientation and is used for such things as investment decisions, stewardship evaluation, monitoring activity, and regulatory measures. Financial statements must conform to certain rules and conventions that are defined by various agencies, such as the Securities and Exchange Commission (SEC), the Financial Accounting Standards Board (FASB), and the International Accounting Standards Board (IASB). These rules pertain to issues such as the recognition of revenues; timing of expenses; and recording of assets, liabilities, and stockholders' equity.

## Managerial Accounting

The managerial accounting system produces information for *internal* users, such as managers, executives, and workers. Thus, managerial accounting could be properly called *internal accounting*, and financial accounting could be called *external accounting*. Specifically, managerial accounting identifies, collects, measures, classifies, and reports financial and nonfinancial information that is useful to internal users in planning, controlling, and decision making.

## Comparison of Financial and Managerial Accounting

When comparing financial accounting to managerial accounting, several differences can be identified. Some of the more important differences follow and are summarized in Exhibit 1.1.

- *Targeted users*. Managerial accounting focuses on providing information for internal users, while financial accounting focuses on providing information for external users.
- *Restrictions on inputs and processes*. Managerial accounting is not subject to the requirements of generally accepted accounting principles (set by the FASB) that must be followed for financial reporting. The inputs and processes of financial accounting are well defined. Only certain kinds of economic events qualify as inputs, and processes must follow generally accepted methods. Unlike financial accounting, managerial accounting has no official body that prescribes the format, content, and rules for selecting inputs and processes and preparing reports.
- *Type of information*. The restrictions imposed by financial accounting tend to produce objective and verifiable financial information. For managerial accounting, information may be financial and nonfinancial and may be much more subjective in nature.
- *Time orientation*. Financial accounting has a historical orientation (i.e., looking through the rearview mirror). It records and reports events that have already happened. Although managerial accounting also records and reports events that have already occurred, it strongly emphasizes providing information about future events (i.e., looking through the front windshield). Management, for example, may want to know what it will cost to produce a product next year. This future orientation is necessary for planning and decision making.
- *Degree of aggregation*. Managerial accounting provides measures and internal reports used to evaluate the performance of entities, product lines, departments, and managers. Essentially, detailed information is needed and provided. Financial accounting, on the other hand, focuses on overall firm performance, providing a more aggregated viewpoint.
- *Breadth*. Managerial accounting is much broader than financial accounting. It includes aspects of managerial economics, industrial engineering, and management science as well as numerous other areas.

**Exhibit 1.1**

Comparison of Financial and Managerial Accounting

| Financial Accounting | Managerial Accounting |
|---|---|
| • Externally focused | • Internally focused |
| • Must follow externally imposed rules | • No mandatory rules |
| • Objective financial information | • Financial and nonfinancial information; subjective information possible |
| • Historical orientation | • Emphasis on the future |
| • Information about the firm as a whole | • Internal evaluation and decisions based on very detailed information |
| • More self-contained | • Broad, multidisciplinary |

## Check Point

1. **Is the preparation of financial statements for the annual report a task more suited to managerial accounting or financial accounting?**

**Answer:**
Financial accounting. While managerial accounting provides important inputs (such as work-in-process inventory or cost of goods sold) to external financial statements, financial accounting focuses most heavily on producing financial statements for use by external parties.

2. **Is performance measurement information concerning internal product failure rates an example of financial accounting information or managerial accounting information?**

**Answer:**
Managerial accounting. Product failure rates are an example of important internal managerial accounting information that would be helpful in forecasting future financial accounting performance measures such as sales revenue.

# Current Focus of Managerial Accounting

**Objective 3**

Explain the current focus of managerial accounting.

The business environment in which companies operate changes constantly. For instance, advances in technology, customer preferences, the opening and closing of markets around the world, increased competitive pressures, and increased complexity of strategy (e.g., alliances between **McDonald's** and **The Walt Disney Company** for promotional tie-ins) and operations all combine to form the global business environment. As a result, effective managerial accounting systems also must advance in order to provide information that helps improve companies' planning, control, and decision-making activities in the constantly evolving global business environment. Several important uses of managerial accounting resulting from these advances include new methods of estimating product and service cost and profitability, growing use of data analytics in conducting and communicating managerial accounting analyses, understanding customer orientation, evaluating the business from a cross-functional perspective, providing information useful in improving total quality and measuring the timeliness and efficiency of organizational performance.

Here's **Why It's Important**

## New Methods of Costing Products and Services

Today's companies need focused, accurate information on the cost of the products and services they produce. In the past, a company might have produced a few products that were roughly similar to one another. Only the cost of materials and labor might have differed from one product to another, and figuring out the cost of each unit was relatively easy. However, most companies today are relatively more complex, making many different types of products or offering many different types of services to customers, oftentimes customizing their products or services to particular customer desires. Fortunately, with increasing technology and automation, including advancing data analytic capabilities and enormous amounts of data, managerial accountants can create more sophisticated analyses that more accurately portray financial performance in these more complex business environments.

Activity-based costing (ABC) represents one such more detailed approach to determining the cost of goods and services. ABC improves costing accuracy by emphasizing the cost of the many activities or tasks that must be done to produce a product or offer a service. **United Parcel Service Inc. (UPS)** used ABC to discover and manage the cost of the activities involved with shipping packages by truck, rather than by plane, in order to beat **FedEx** at its overnight delivery business in quick mid-distance (up to 500 miles) overnight deliveries. Process-value analysis focuses on the way in which companies create value for customers. The objective is to find ways to perform necessary activities more efficiently and to eliminate those that do not create customer value.

## Data Analytics

Data Analytics

Managerial accounting analyses utilize various data analytic perspectives and techniques to create financial insights for improved decision making across the company. Throughout this book, we examine many specific examples of how data analytics informs key managerial accounting decision recommendations. For example, critical decisions regarding cost forecasting (Chapter 3), product and service line profitability (Chapter 5), strategy selection and evaluation (Chapter 7), adding or dropping physical store or online platforms (Chapter 8), and business sustainability practices (Chapter 13) rely on the data analytics-based insights of management accounting analyses. Furthermore, managerial accountants utilize data analytics to communicate (or visualize) the results of their decision recommendations to decision makers across the company. For example, graphical representations of cost behavior patterns and profit and loss projections can prompt decision makers to more fully understand managerial accounting analyses, as well as their implications for decision making.

The Institute of Management Accountants (IMA) created the IMA Management Accounting Competency Framework to explain the exciting roles and interconnected skills and abilities, including data governance, data analytics, and data visualization, expected of

## Here's How It's Used: Data Analytics at UPS

**UPS** employs approximately 500,000 workers to serve 2 million customers. The company invested more than $1 billion in speeding up its delivery network and building its Orion computer platform—a 1,000-page algorithm written by a team of 50 UPS engineers—to help managers and drivers determine the best delivery routes from both a fuel and time efficiency perspective, as well as a driver and customer preference perspective. For example, many UPS customers prefer to receive their packages at approximately the same time each day regardless of the efficiency implications. Similarly, most UPS drivers like to follow approximately the same path each day, regardless of the nature and variation of the day's particular customer orders. Data analytics also allow UPS to change its decision making to improve profitability. For example, the company started canceling less profitable customer contracts that involved lighter, low-volume shipping orders in favor of signing more profitable contracts that involved heavier, high-volume shipping orders that generate additional fee revenues that boost UPS' profitability.[3] The ability to integrate data analytics, financial impact factors, and human behavioral preferences represents a growing role and opportunity for managerial accountants to create value for their organization.

successful managerial accountants.[2] In essence, data governance refers to ensuring data integrity and security. Data analytics refers to gathering and analyzing data to improve decision making. Finally, data visualization refers to graphical or other presentation of data to improve their interpretation. Chapter 2 examines the role of data analytics in management accounting in more detail. Data analytics represents such an important aspect of managerial accounting that each chapter in this book specifically illustrates how companies use data analytics to improve their management accounting analyses and resulting decision recommendations.

## Customer Orientation

Customer value is a key focus because firms can establish a competitive advantage by creating better customer value for the same or lower cost than competitors or creating equivalent value for lower cost than that of competitors. Customer value is the difference between what a customer receives and what the customer gives up when buying a product or service. When we talk about customer value, we consider the complete range of tangible and intangible benefits that a customer receives from a purchased product. Customers receive basic and special product features, service, quality, instructions for use, reputation, brand name, and other important factors. On the other hand, customers give up the cost of purchasing the product, the time and effort spent acquiring and learning to use the product, and the costs of using, maintaining, and disposing of it.

Concept Clip

**Strategic Positioning** Effective cost information can help the company identify strategies that increase customer value and, in so doing, create a sustainable competitive advantage.[4] Generally, firms choose one of two general strategies:

- *Cost leadership*: The objective of the cost leadership strategy is to provide the same or better value to customers at a *lower* cost than competitors.
- *Superior products through differentiation (e.g., highest performance quality, most desired product features, best customer service, etc.)*: A differentiation strategy strives to increase customer value by providing something to customers not provided by competitors. For example, **Best Buy**'s Geek Squad of computer technicians creates a competitive advantage for Best Buy by providing 24-hour in-home technical assistance for its customers. Accurate cost information is important to see whether or not the additional service provided by the Geek Squad adds more to revenue than it does to cost.

2 IMA Management Accounting Competency Framework. Institute of Management Accountants (2019). Available at: https://www.imanet.org/-/media/590889ef44ad401bb94d83cd43e584b8.ashx?la=en.

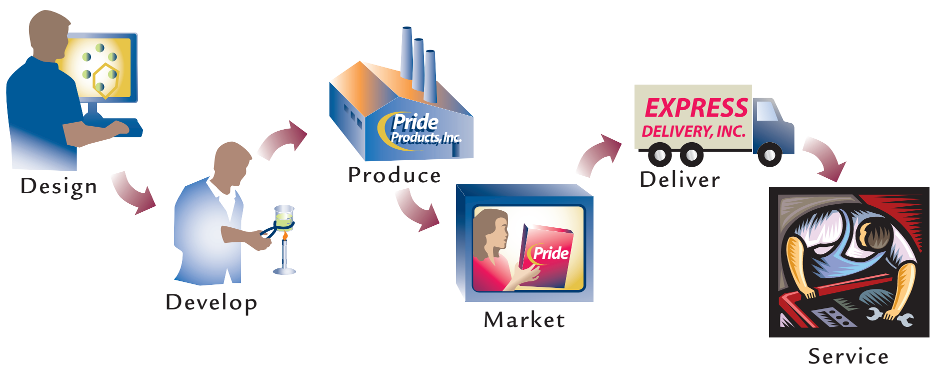
3 Paul Ziobro. "UPS Boss Preaches the Power of No. WSJ.com (February 26, 2021). Available at: https://www.wsj.com/articles/ups-boss-preaches-the-power-of-no-11614335402.

4 Deloitte Insights, "Cutting Costs to Drive Growth," *CFO Journal* (August 27, 2013). Taken from http://deloitte.wsj.com/cfo/2013/08/27/cutting-costs-to-drive-growth-trends-among-the-fortune-1000/on January 14, 2014.

**The Value Chain** Successful pursuit of cost leadership and/or differentiation strategies requires an understanding of a firm's value chain. The **value chain** is the set of activities required to design, develop, produce, market, and deliver products and services, as well as provide support services to customers. Exhibit 1.2 illustrates the value chain.

**Exhibit 1.2**

The Value Chain




A managerial accounting system should track information about a wide variety of activities that span the value chain. For example, **Apple** spends considerable effort researching the cost of developing, manufacturing, and servicing each new iteration of its iPhone and iPad products. Also, customer value can be increased by improving the speed of delivery and response, as many customers believe that delivery delayed is delivery denied. **FedEx** exploited this part of the value chain and successfully developed a service that was not being offered by the **U.S. Postal Service**.

It is important to note that companies have internal customers as well. For example, the procurement process acquires and delivers parts and materials to producing departments. Providing high-quality parts on a timely basis to managers of producing departments is just as vital for procurement as it is for the company as a whole to provide high-quality goods to external customers. The emphasis on managing the internal value chain and servicing internal customers has revealed the importance of a cross-functional perspective.

## Cross-Functional Perspective

In managing the value chain, a managerial accountant must understand and measure many functions of the business. Contemporary approaches to costing may include initial design and engineering costs, as well as manufacturing costs, and the costs of distribution, sales, and service. An individual well-schooled in the various definitions of cost, who understands the shifting definitions of cost from the short run to the long run, can be invaluable in determining what information is relevant in decision making. For example, strategic decisions may require a cost definition that assigns the costs of all value chain activities. In a long-run decision environment, companies in industries ranging from banking to retail to consumer products (e.g., **Bank of America**, **Kraft Heinz**) collectively spend billions of dollars per year across all functional areas to perform customer profitability analyses that identify their most, and least,

### Here's How It's Used: At BuyCostumes.com

Recall that **BuyCostumes.com** relies heavily on managerial accounting to provide its managers with various key performance measures to help in making the right strategic and operating decisions. For example, to be sure the company is making the proper adjustments to its strategy and operations, BuyCostumes.com managers use measures along the entire value chain, such as the average time between order placement and costume arrival for each shipping method, customer satisfaction (e.g., retention and loyalty), and the sales and costs of different customer types.

profitable customers.[5] However, a short-run decision to determine the profitability of a special order (e.g., an offer made to **Bridgestone Tire** at year-end to use idle machinery to produce 1,000 extra tires for a local tire distributor) may require only the incremental costs of the special order in a single functional area.

Why try to relate managerial accounting to marketing, management, engineering, finance, and other business functions? When a value chain approach is taken and customer value is emphasized, we see that these disciplines are interrelated. For example, salespeople may offer deep discounts at the end of the year to meet their sales targets. If customers buy more product, the company's factories may have to work double shifts, incurring overtime pay, to meet this sudden increase in demand. A cross-functional perspective allows us to see the big picture—to see that the increased revenue came at the expense of much higher product costs. This broader vision allows managers to increase quality, reduce the time required to service customers (both internal and external), and improve efficiency.

## Total Quality Management

**Continuous improvement** is the continual search for ways to increase the overall efficiency and productivity of activities by reducing waste, increasing quality, and managing costs. Managerial accounting information about the costs of products, customers, processes, and other objects of management interest can be the basis for identifying problems and alternative solutions.

Continuous improvement is fundamental for establishing excellence. A philosophy of **total quality management**, in which manufacturers strive to create an environment that will enable workers to manufacture perfect (zero-defect) products, has replaced the "acceptable quality" attitudes of the past. This emphasis on quality has also created a demand for a managerial accounting system that provides information about quality, including quality cost measurement and reporting for both manufacturing and service industries. For example, in response to increasing customer complaints regarding its laptop computer repair process, **Toshiba** formed an alliance with **UPS** in which UPS picks up the broken laptop, Toshiba fixes it, and UPS returns the repaired laptop to the customer. In order for this alliance to work effectively, both Toshiba and UPS require relevant managerial accounting information regarding the cost of existing poor quality and efforts to improve future quality.

Increasingly, companies such as **BASF Corporation** are using techniques like Six Sigma, together with various types of cost information, to achieve improved quality performance. On a related note, many companies attempt to increase organizational value by eliminating wasteful activities that exist throughout the value chain. In eliminating such waste, companies usually find that their accounting must also change. This approach, referred to as **lean accounting**, organizes costs according to the value chain and collects both financial and nonfinancial information. The objective is to provide information to managers that supports their waste reduction efforts and to provide financial statements that better reflect overall performance, using both financial and nonfinancial information.

Finally, one of the more recent charges of managerial accountants is to help carry out the company's approach to enterprise risk management (ERM) and/or corporate sustainability reporting (CSR). ERM is a formal way for managerial accountants to identify and respond to the most important threats and business opportunities facing the organization. ERM is becoming increasingly important for long-term success. CSR represents the ways in which organizations choose to communicate the results of their various *business sustainability* practices to key internal and external stakeholders. Companies increasingly realize the importance of effective ERM and crisis management to their short-term and long-term success.[6]

5 E. Yoon, S. Carlotti, and D. Moore, "Make Your Best Customers Even Better," *Harvard Business Review* (March 2014).
6 Matt Kunkel, "Why Enterprise Risk Management Is Key to Organizational Resilience," *Forbes* (April 30, 2021). Available from: https://www.forbes.com/sites/forbestechcouncil/2021/04/30/why-enterprise-risk-management-is-key-to-organizational-resilience/?sh=458377c13bea.

## Time as a Competitive Element

Time is a crucial element in all phases of the value chain. World-class firms reduce time to market by compressing design, implementation, and production cycles. These firms deliver products or services quickly by eliminating nonvalue-added time, which is time of no value to the customer (e.g., the time a product spends on the loading dock). Interestingly, decreasing nonvalue-added time appears to go hand in hand with increasing quality.

What about the relationship between time and product life cycles? The rate of technological innovation has increased for many industries, and the life of a particular product can be quite short. Managers must be able to respond quickly and decisively to changing market conditions and will rely on managerial accounting information to accomplish this. For example, **Hewlett-Packard** has found that it is better to be 50% over budget in new product development than to be six months late.

## Efficiency

Improving efficiency is also a vital concern. Both financial and nonfinancial measures of efficiency are needed. Cost is a critical measure of efficiency. Trends in costs over time and measures of productivity changes can provide important measures of the efficacy of continuous improvement decisions. For these efficiency measures to be of value, costs must be properly defined, measured, and assigned; furthermore, production of output must be related to the inputs required, and the overall financial effect of productivity changes should be calculated.

### Check Point

1. **Does Walmart more heavily emphasize a cost leadership or a product differentiation strategy?**

**Answer:**
Cost leadership. While Walmart likely attempts to differentiate its products from other discount retailers, its primary strategic focus is to continually reduce its costs in order to provide customers with products at the lowest price.

2. **The notion of "continuous improvement" is most closely associated with which of the following areas of managerial accounting focus: cross-functional perspective, customer orientation, or total quality management?**

**Answer:**
Total quality management. Continuous improvement in finding new and better ways to increase the overall efficiency and productivity of work activities is critical to improving product or service quality.

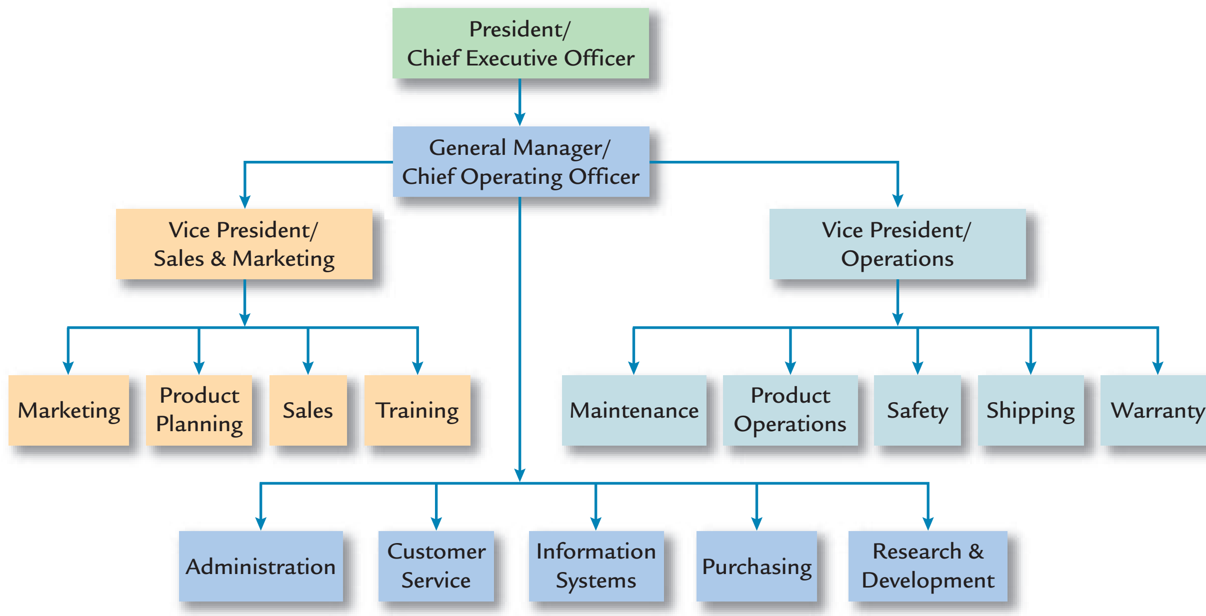
# The Role of the Managerial Accountant

**Objective 4**
Describe the role of managerial accountants in an organization.

Here's **Why It's Important**

Managerial accountants play a critically important decision making support role in an organization. They assist those individuals who are responsible for carrying out an organization's basic objectives by providing them with various types of performance measurement information. Positions that have direct responsibility for the basic objectives of an organization are referred to as **line positions**. Positions that are supportive in nature and have only indirect responsibility for an organization's basic objectives are called **staff positions**. For **Kicker**, an organization that designs, produces, and sells audio equipment, the president, general manager, and vice presidents for sales and marketing and operations hold line positions. The purchasing manager and the cost accountant hold staff positions. Kicker's organization chart is shown in Exhibit 1.3.

**Exhibit 1.3** Kicker Inc. Organizational Chart




## Here's How It's Used: At Kicker

A division of **Stillwater Designs** and **Audio Inc.**, **Kicker** makes car stereo systems. Its signature logo, "Livin' Loud," gives you a hint as to the capabilities of the system. As the company website says, "Livin' Loud has always been the KICKER way—staying one step ahead of the pack—driven to create components that consistently raise the world's expectations for car stereo performance."

Forty years ago, car stereos were underpowered tinny affairs. They could power a radio or an 8-track tape deck. But the in-home listening experience coveted by audio buffs eluded the automobile market. In 1980, Stillwater Designs' founder and president Steve Irby developed the first full-range speaker enclosure designed specifically for automotive use—the Original Kicker®.

Stillwater Designs began in 1973 as a two-person operation, custom designing and building professional sound and musical instrument speaker systems for churches, auditoriums, and entertainers. Building upon the success of the Original Kicker, the company concentrated on the car audio market, applying the same research and design skills that made its first product so successful to the development of a complete line of high-performance components for car audio. What was once a company with two employees in a single-car garage is now a corporation with more than 200 employees in facilities totaling more than 500,000 square feet.

The Kicker brand includes many high-performance car stereo products, including subwoofers, midrange and midbass drivers, tweeters, crossovers, matched component systems, speakers, and power amplifiers. Kicker is proud to have won the prestigious Audio Video International Auto Sound Grand Prix Award, sponsored annually by *Audio-Video International* magazine. Winners are selected by retailers based on fidelity of sound reproduction, design engineering, reliability, craftsmanship and product integrity, and cost/performance ratio. Numerous Kicker products have earned Grand Prix awards, the Governor's Award for Excellence in Exporting, and the Oklahoma City International Trade Association designation as its International Business of the Year.

While Stillwater Designs originally handled research and design (R&D), manufacturing, and sales, it now concentrates primarily on R&D and sales. The bulk of manufacturing has been outsourced (performed by outside firms on a contract basis), although the company still builds some product and plans to build even more as it moves into its new facility for factory-installed audio systems. Engineering and audio research is Kicker president and chief executive officer Steve Irby's first love, and he still heads its design team. The day-to-day involvement of top management, coupled with an energetic workforce of talented individuals in all areas of the company's operations and an innate ability to create truly musical components, has been the reason for the company's remarkable success.

Managerial accounting helps to improve a wide range of business decisions for organizations. For example, **Kicker**, a real company that makes car stereo systems, relies heavily on managerial accounting information, as we learned in extensive interviews with its top management. Boxes titled "Here's How It's Used at Kicker," like the one on the previous page, detail how the company has used managerial accounting information in its operations.

The **controller**, or chief accounting officer, for **Kicker** is located in the administration department. She supervises all accounting functions and reports directly to the general manager and chief operating officer (COO). Although managerial accountants, such as controllers and cost accounting managers, may wield considerable influence in the organization, they have no authority over the managers in the production area. The managers in line positions are the ones who set policy and make the decisions that impact the company. However, by supplying and interpreting accounting information, managerial accountants can have significant input into policies and decisions.

Because of the critical role that managerial accounting plays in the operation of an organization, the controller is often viewed as a member of the top management team and is encouraged to participate in planning, controlling, and decision-making activities. As the chief accounting officer, the controller has responsibility for both internal and external accounting requirements. In larger firms, this charge may include direct responsibility for internal auditing, cost accounting, financial accounting (including SEC reports and financial statements), systems accounting (including analysis, design, and internal controls), and taxes. The duties and organization of the controller's office vary from firm to firm. For example, in some firms, the internal audit department may report directly to the financial vice president; similarly, the systems department may report directly to the financial vice president or some other vice president.

In larger companies, the controller is separate from the treasury department. The **treasurer** is responsible for the finance function. Specifically, the treasurer raises capital and manages cash and investments. The treasurer may also be in charge of credit and collection and insurance.

No matter which position managerial accountants hold, they must support management in all phases of business decision making. As specialists in accounting, they must be intelligent, well prepared, up to date with new developments, and familiar with the customs and practices of all countries in which their firms operate. They also should be knowledgeable about the legal environment of business including important financial laws and regulations, such as the Dodd-Frank Act and the Sarbanes-Oxley Act.

**Check Point**

1. **Is the controller or the treasurer responsible for the finance function in large organizations?**

**Answer:**
In larger organizations, the controller is separate from the treasury department; thus, the treasurer is responsible for the finance function.

2. **Which position sits atop Kicker's organizational chart?**

**Answer:**
The president or chief executive officer.

## Managerial Accounting and Ethical Conduct

**Objective 5**
Explain the importance of ethical behavior for managers and managerial accountants.

**Here's Why It's Important**

Virtually all managerial accounting practices were developed to assist managers in maximizing profits. Traditionally, actions regarding the economic performance of the firm have been the overriding concern. Yet managers and managerial accountants should not become so focused on profits that they develop a belief that the only goal of a business is maximizing its net worth. The objective of profit maximization should be constrained by the requirement that profits be achieved through legal and ethical means.

## Here's How It's Used: In Your Life

Most students and young professionals rarely think about *ethics* until they are in the middle of a potential personal or professional crisis. Ethical conflicts often are assumed—incorrectly—to arise only for executives negotiating international business deals or employees working in "shady" industries. However, these commonly held sentiments could not be further from your student reality! For example, you might already have been asked to sign a student honor code at your university. If so, you likely realized that in order to comply, you are not allowed to cheat on exams or to turn in anything that is not 100% your own original work. But you might be surprised to realize that compliance often also requires that you share with university officials any and all knowledge you possess regarding cheating by *other* people! As another example, students can find themselves in an ethical quandary when they excitedly accept a full-time job offer as a sophomore or junior but then stumble into an even better job offer as a graduating senior. While many students might believe that they ultimately are entitled to the most lucrative or prestigious job they can find—even after they have accepted a full-time offer—most employers consider students reneging on a job offer acceptance to be unethical behavior. Finally, turning to your young professional life, managerial accounting students sometimes decide to work for various consulting organizations, such as **Bain**, **McKinsey**, **Deloitte Consulting**, **EY Parthenon**, **Boston Consulting Group**, or **Protiviti**. New hires often are asked to sign a "noncompete" agreement stating they will not start their own competing consulting organization and attempt to lure away (i.e., "poach") their former clients. As you can see, everyone must understand ethics!

## Ethical Behavior

Concept Clip

**Ethical behavior** involves choosing actions that are right, proper, and just. Behavior can be right or wrong; it can be proper or improper; and the decisions we make can be fair or unfair. Though people often differ in their views of the meaning of the ethical terms cited, there seems to be a common principle underlying all ethical systems. This principle is expressed by the belief that each member of a group bears some responsibility for the well-being of other members. Willingness to sacrifice one's self-interest for the well-being of the group is the heart of ethical action.

This notion of sacrifice produces some core values—values that describe what is meant by right and wrong in more concrete terms. James W. Brackner, writing for the "Ethics Column" in *Management Accounting*, made the following observation:

> *For moral or ethical education to have meaning, there must be agreement on the values that are considered "right." Ten of these values are identified and described by Michael Josephson in "Teaching Ethical Decision Making and Principled Reasoning." The study of history, philosophy, and religion reveals a strong consensus as to certain universal and timeless values essential to the ethical life.*
>
> *These 10 core values yield a series of principles that delineate right and wrong in general terms. Therefore, they provide a guide to behavior.*[7]

The 10 core values referred to in the quotation include the following:

1. Honesty
2. Integrity
3. Promise keeping
4. Fidelity
5. Fairness
6. Caring for others

7 James W. Brackner, "Consensus Values Should Be Taught," *Management Accounting* (August 1992): 19. For a more complete discussion of the 10 core values, see also Michael Josephson, *Teaching Ethical Decision Making and Principled Reasoning, Ethics Easier Said Than Done* (Winter Los Angeles, CA: The Josephson Institute, 1988): 29–30.

7. Respect for others
8. Responsible citizenship
9. Pursuit of excellence
10. Accountability

Ethics

Many of the historic accounting scandals, such as those involving **Adelphia**, **WorldCom**, **HealthSouth**, **Parmalat**, and **McKesson**, provide evidence of the pressures faced by top managers and accountants to produce large net income numbers, especially in the short term. Unfortunately, such individuals often give in to these pressures when faced with questionable revenue- and cost-related judgments. For example, the WorldCom scandal was committed because the CEO coerced several of WorldCom's top accountants to wrongfully record journal entries in the company's books that capitalized millions of dollars in costs as assets (i.e., on the balance sheet) rather than as expenses (i.e., on the income statement) that would have dramatically lowered current period net income. Eventually, WorldCom was forced to pay hundreds of millions of dollars to the U.S. government and to shareholders for its illegal and unethical actions. In addition, several of the top executives were sentenced to extensive prison time for their actions.

In response to this plethora of corporate scandals, Congress passed the **Sarbanes-Oxley Act (SOX)**, which attempted to limit securities frauds and accounting misconduct scandals like those associated with **Enron**, **WorldCom**, **Adelphia**, and **HealthSouth**. SOX led to increased attention on corporate ethics. While successful on many fronts, SOX has not prevented all subsequent frauds. For example, the subprime mortgage crisis also highlights the importance of ethical considerations, as some banks tried to increase their profits either by lending individuals more money than they could reasonably afford or by using terms that were intentionally less clear, or transparent, than many outsiders thought they should be. The Bernard Maddoff Ponzi scheme, which at the time was the largest fraud in history, swindled investors out of tens of billions of dollars. Mr. Maddoff pleaded guilty and was sentenced to a 150-year prison term.

Ethical accounting scandals represent a global problem. For example, Luckin Coffee Inc., a China-based company listed on the U.S. NASDAQ stock exchange, was accused by the Securities and Exchange Commission (SEC) of perpetrating financial fraud. Specifically, the SEC accused Luckin Coffee of intentionally fabricating $300 million in retail sales and then "concealing (the fraud) by inflating the company's expenses by more than $190 million, creating a fake operations database, and altering accounting and bank records to reflect false sales."[8] Luckin Coffee agreed to pay a $180 million penalty to settle the fraud charges.

Although it may seem contradictory, sacrificing self-interest for the collective good might not only be right and bring a sense of individual worth but might also make good business sense. Companies with a strong code of ethics can create strong customer and employee loyalty. While liars and cheats may win on occasion, their victories often are short-lived. Companies in business for the long term find that it pays to treat all of their constituents with honesty and loyalty.

## Company Codes of Ethical Conduct

One needs only to hear the names **Enron**, **Luckin Coffee**, **Toshiba**, or **Volkswagen** to be reminded of the importance of ethical conduct. To promote ethical behavior by managers and employees, organizations commonly establish standards of conduct referred to as Company Codes of Conduct. A quick review of various corporate codes of conduct shows some common ground. For example, **Coca-Cola**'s list of corporate values includes leadership, collaboration, integrity, accountability, passion, diversity, and quality. **Boeing**'s Code of Conduct[9]

8 "Luckin Coffee Agrees to Pay $180 Million Penalty to Settle Accounting Fraud Charges." (December 16, 2020). U.S. Securities and Exchange Commission. Available at: https://www.sec.gov/news/press-release/2020-319.

9 Taken from Boeing's website, https://www.boeing.com/resources/boeingdotcom/principles/ethics_and_compliance/pdf/english.pdf on July 1, 2021.

states that it will "conduct its business fairly, impartially, in an ethical and proper manner, and in full compliance with all applicable laws and regulations."

Important parts of corporate codes of conduct are integrity, performance of duties, and compliance with the rule of law. They also uniformly prohibit the acceptance of kickbacks and improper gifts, insider trading, and misappropriation of corporate information and assets. For example, **Google's Supplier Code of Conduct**[10] outlines suppliers' responsibilities to comply with all applicable laws, legal regulations, and all obligations in contracts with Google, as well as labor and human rights policies and expectations (including for young workers and student interns), and ethics and compliance standards.

## Standards of Ethical Conduct for Managerial Accountants

In addition to organizations establishing standards of conduct for their managers and employees, professional associations also establish ethical standards. Both the American Institute of Certified Public Accountants (AICPA) and the Institute of Management Accountants (IMA) have established ethical standards for accountants. Professional accountants are bound by these codes of conduct.[11] Both the AICPA and IMA stress the importance of competence, confidentiality, integrity, and credibility or objectivity. The IMA's Ethics Center helps professionals and students understand and adhere to the highest standards of ethical business practices by offering numerous resources, such as its IMA Statement of Ethical Professional Practice, its Ethics Helpline, and various cases and other teaching materials.[12]

The IMA's Statement of Ethical Professional Practice considers global issues and incorporates the principles of the code of the International Federation of Accountants, which is the global association of professional accounting groups. In this statement, managerial accountants are told that IMA members must behave ethically by displaying a commitment to overarching ethical principles that express the organization's values and standards. Exhibit 1.4 presents the standards and recommended resolution of ethical conflicts.

Suppose a manager's bonus is linked to reported profits, with the bonus increasing as profits increase. Thus, the manager has an incentive to find ways to increase profits, including unethical approaches. A manager could delay promotions of deserving employees or use cheaper parts to produce a product. In either case, if the motive is simply to increase the bonus, the behavior could be labeled as unethical. Neither action is in the best interest of the company or its employees. Yet where should the blame be assigned? After all, the reward system strongly encourages the manager to increase profits. Is the reward system at fault, or is the manager who chooses to increase profits at fault? Or both?

In reality, both the manager and the reward system are probably at fault. It is important to design evaluation and reward systems so that incentives to pursue undesirable behavior are minimized. Yet designing a perfect reward system is not a realistic expectation. Managers also have an obligation to avoid abusing the system. Standard III-1 of the code reminds us that members have a responsibility to "(1) mitigate actual conflicts of interest … [and to] advise all parties of any potential conflicts of interest." Basically, the prospect of an increased bonus (e.g., a favor) should not influence a manager to engage in unethical actions.

Can ethics be taught? Philosophers and ethicists from Socrates to those studying business ethics today agree that ethics can be taught and, even more importantly, learned. In fact, the IMA now requires continuing education in ethics, as do many of the state boards of accountancy. Perhaps the biggest challenge with ethical dilemmas is that when they arise, employees frequently do not realize (1) that such a dilemma has arisen or (2) the "correct"

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10 Taken from Google's website, https://about.google/intl/ALL_us/supplier-code-of-conduct/ on July 1, 2021.

11 The AICPA Code of Professional Conduct can be found at http://www.aicpa.org/Research/Standards/CodeofConduct/Pages/default.aspx.

12 The IMA Ethics Center can be found at http://www.imanet.org/resources-publications/ethics-center.

**Exhibit 1.4**

Statement of Ethical Professional Practice

Members of IMA shall behave ethically. A commitment to ethical professional practice includes overarching principles that express our values, and standards that guide member conduct.

**PRINCIPLES**
IMA's overarching ethical principles include: Honesty, Fairness, Objectivity, and Responsibility. Members shall act in accordance with these principles and shall encourage others within their organizations to adhere to them.

**STANDARDS**
IMA members have a responsibility to comply with and uphold the standards of Competence, Confidentiality, Integrity, and Credibility. Failure to comply may result in disciplinary action.

**I. COMPETENCE**

1. Maintain an appropriate level of professional leadership and expertise by enhancing knowledge and skills.
2. Perform professional duties in accordance with relevant laws, regulations, and technical standards.
3. Provide decision support information and recommendations that are accurate, clear, concise, and timely. Recognize and help manage risk.

**II. CONFIDENTIALITY**

1. Keep information confidential except when disclosure is authorized or legally required.
2. Inform all relevant parties regarding appropriate use of confidential information. Monitor to ensure compliance.
3. Refrain from using confidential information for unethical or illegal advantage.

**III. INTEGRITY**

1. 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.
2. Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
3. Abstain from engaging in or supporting any activity that might discredit the profession.
4. Contribute to a positive ethical culture and place integrity of the profession above personal interests.

**IV. CREDIBILITY**

1. Communicate information fairly and objectively.
2. Provide all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
3. Report any delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.
4. Communicate professional limitations or other constraints that would preclude responsible judgment or successful performance of an activity.

**RESOLVING ETHICAL ISSUES**
In applying the Standards of Ethical Professional Practice, the member may encounter unethical issues or behavior. In these situations, the member should not ignore them, but rather should actively seek resolution of the issue.

In determining which steps to follow, the member should consider all risks involved and whether protections exist against retaliation.

When faced with unethical issues, the member should follow the established policies of his or her organization, including use of an anonymous reporting system if available.

If the organization does not have established policies, the member should consider the following courses of action:

- The resolution process could include a discussion with the member's immediate supervisor. If the supervisor appears to be involved, the issue could be presented to the next level of management.
- IMA offers an anonymous helpline that the member may call to request how key elements of the *IMA Statement of Ethical Professional Practice* could be applied to the ethical issue.
- The member should consider consulting his or her own attorney to learn of any legal obligations, rights, and risks concerning the issue.

If resolution efforts are not successful, the member may wish to consider disassociating from the organization.

*Source:* Derived from the IMA website. Institute of Management Accountants, Inc.

action that should be taken to rectify the dilemma. Therefore, rather than attempt to study numerous ethical issues in one place, each chapter of this text includes an ethical dilemma or situation designed to increase awareness of the types of conduct considered unethical in business.

**Check Point**

1. **Which of the following items is *not* a common core value of ethical behavior as defined by James Brackner's "Ethics Column" in *Management Accounting*?**

   **(a) Fairness, (b) Integrity, (c) Immediacy, (d) Accountability**

**Answer:**
(c) Immediacy.

2. **How do groups like the IMA attempt to teach ethics?**

**Answer:**
Groups like the IMA attempt to help individuals learn ethics by requiring continuing education in ethics. Many state boards of accountancy also require ethics training.

**Objective 6**

Identify three forms of certification available to managerial accountants.

Here's **Why It's Important**

# Certification

As with the legal and medical professions, the accounting profession relies on certification to help promote ethical behavior, as well as to provide evidence that the certificate holder has achieved a minimum level of professional competence. The accounting profession offers three major forms of certification to managerial accountants:

- Certificate in Management Accounting
- Certificate in Public Accounting
- Certificate in Internal Auditing

Each certification offers particular advantages to a managerial accountant. In each case, an applicant must meet specific educational and experience requirements and pass a qualifying examination to become certified. Thus, all three certifications offer evidence that the holder has achieved a minimum level of professional competence. Furthermore, all three certifications require the holders to engage in continuing professional education in order to maintain certification. Because certification reveals a commitment to professional competency, most organizations encourage their managerial accountants to become certified. In addition, an increasing number of accountants also consider becoming a Certified Fraud Examiner (CFE),[13] which allows them to conduct expert work in the areas of fraud prevention, detection, and deterrence.[14]

## The Certified Management Accountant

The Certificate in Management Accounting is designed to meet the specific needs of managerial accountants. A **Certified Management Accountant (CMA)** has passed a rigorous qualifying examination, met an experience requirement, and participates in continuing education.

13 For more information about the CFE process, see https://www.acfe.com.

14 To learn more about the growing world of forensic accounting, see Crumbley, Heitger, and Smith, "*Forensic and Investigative Accounting*," 8th edition, CCH.

One of the key requirements for obtaining the CMA is passing a qualifying examination. The CMA exam contains two parts covering 12 competencies:

| **Part 1: Financial Planning, Performance, and Analytics** | **Part 2: Strategic Financial Management** |
|---|---|
| • 15% external financial reporting decisions | • 20% financial statement analysis |
| • 20% planning, budgeting, and forecasting | • 20% corporate finance |
| • 20% performance management | • 25% decision analysis |
| • 15% cost management | • 10% risk management |
| • 15% internal controls | • 10% investment decisions |
| • 15% technology and analytics | • 15% professional ethics |

The parts to the examination reflect the needs of managerial accounting and underscore the earlier observation that managerial accounting has more of an interdisciplinary flavor than other areas of accounting.

One of the main purposes of the CMA was to establish managerial accounting as a recognized, professional discipline, separate from the profession of public accounting. Since its inception, the CMA program has been quite successful. Many firms now sponsor and pay for classes that prepare their managerial accountants for the qualifying examination as well as provide other financial incentives to encourage acquisition of the CMA.[15]

## The Certified Public Accountant

The Certificate in Public Accounting is the oldest and most well-known certification in accounting. The purpose of the certificate is to provide minimal professional qualification for external auditors. The responsibility of auditors is to provide assurance concerning the reliability of a firm's financial statements. Only a **Certified Public Accountant (CPA)** is permitted (by law) to serve as an external auditor. CPAs must pass a national examination and be licensed by the state in which they practice. Although the Certificate in Public Accounting does not have a managerial accounting orientation, many managerial accountants also hold this certificate.

## The Certified Internal Auditor

The other certification available to internal accountants is the Certificate in Internal Auditing. Internal auditing differs from external auditing and managerial accounting, and many internal auditors felt a need for a specialized certification. The **Certified Internal Auditor (CIA)** has passed a comprehensive examination designed to ensure technical competence and has 2 years of experience.

### Check Point

1. **Which of the following groups requires members to pass an examination as part of becoming a member?**

   **(a) Certified Management Accountant, (b) Certified Internal Auditor,**
   **(c) Certified Public Accountant, (d) All three require an examination,**
   **(e) None of these requires an examination**

**Answer:**
(d)

2. **What term is associated with accountants who meet certain requirements to conduct expert work in the areas of fraud prevention, detection, and deterrence?**

**Answer:**
These accountants are referred to as Certified Fraud Examiners.

15 To learn more about being a Certified Management Accountant, see: https://www.imanet.org/cma-certification?ssopc=1.

## Summary of Learning Objectives

**LO1.** Explain the meaning of managerial accounting.

- Managerial accounting information is used to identify problems and opportunities, solve problems and exploit opportunities, and assess organizational strategy and evaluate performance.
- Managerial accounting information helps managers in planning, controlling, and decision making.
- Planning is the detailed formulation of action to achieve a particular end.
- Controlling is the monitoring of a plan's implementation.
- Decision making is choosing among competing alternatives.

**LO2.** Explain the differences between managerial accounting and financial accounting.

- Managerial accounting is:
  - intended for internal users.
  - not subject to rules for external financial reporting (e.g., generally accepted accounting principles).
  - subjective.
  - able to use both financial and nonfinancial measures of performance.
  - able to give a broader, interdisciplinary perspective.
- Financial accounting is:
  - directed toward external users.
  - subject to externally imposed rules (e.g., GAAP and SEC regulations).
  - able to provide audited, objective financial information.

**LO3.** Explain the current focus of managerial accounting.

- It supports management focus on customer value, total quality management, and time-based competition.
- Managerial accounting analyses increasingly utilize data analytic techniques to improve decision recommendations.
- Information about value chain activities and customer sacrifice (such as post-purchase costs) is collected and made available.
- Activity-based costing is a major innovative response to the demand for more accurate and relevant managerial accounting information.
- The nature of managerial accounting information system may depend on the strategic position of the firm:
  - Cost leadership strategy
  - Product differentiation strategy
  - Lean accounting

**LO4.** Describe the role of managerial accountants in an organization.

- They are responsible for identifying, collecting, measuring, analyzing, preparing, interpreting, and communicating information.
- They must be sensitive to the information needs of managers.
- They serve as staff members of the organization and are part of the management team.

**LO5.** Explain the importance of ethical behavior for managers and managerial accountants.

- A strong ethical sense is needed to resist efforts to change economic information that may present an untrue picture of firm performance.
- Many firms have a written code of ethics or code of conduct.
- The IMA has a code of ethics for managerial accountants.

**LO6.** Identify three forms of certification available to managerial accountants.

- The Certificate of Management Accounting serves managerial accountants.
- The Certificate of Public Accounting serves and is required for those who practice public accounting.
- The Certificate of Internal Auditing serves internal auditors.

## Key Terms

**Certified Internal Auditor (CIA), 21,** has passed a comprehensive examination designed to ensure technological competence and has 2 years of experience.

**Certified Management Accountant (CMA), 20,** has passed a rigorous qualifying examination, met an experience requirement, and participates in continuing education.

**Certified Public Accountant (CPA), 21,** has passed a national examination and must be licensed by the state in which he or she wishes to practice accounting (e.g., in audit, tax, etc.).

**Continuous improvement, 12,** searching for ways to increase the overall efficiency and productivity of activities by decreasing waste, increasing quality, and reducing costs.

**Controller, 15,** the chief accounting officer in an organization.

**Controlling, 5,** the managerial activity of monitoring a plan's implementation and taking corrective action as needed.

**Decision making, 6,** the process of choosing among competing alternatives.

**Ethical behavior, 16,** choosing actions that are right, proper, and just.

**Financial accounting, 7,** a type of accounting focused primarily on the creation of financial information for external users.

**Lean accounting, 12,** an accounting practice that organizes costs according to the value chain to help managers eliminate waste and, ultimately, reduce costs and improve financial performance.

**Line positions, 13,** positions that have direct responsibility for the basic objectives of an organization.

**Managerial accounting, 4,** a type of accounting focused primarily on providing internal users with the necessary financial and nonfinancial information to help them make the best possible decisions for the company.

**Planning, 5,** a management activity that involves the detailed formulation of action to achieve a particular end.

**Sarbanes-Oxley Act (SOX), 17,** passed in response to revelations of misconduct and fraud by several well-known firms, this legislation established stronger governmental regulation of public companies in the United States, from enhanced oversight to increased auditor independence and tightened regulation of corporate governance.

**Staff positions, 13,** positions that are supportive in nature and have only indirect responsibility for an organization's basic objectives.

**Total quality management, 12,** a management philosophy in which manufacturers strive to create an environment that will enable workers to manufacture perfect (zero-defect) products.

**Treasurer, 15,** the individual responsible for the finance function; raises capital and manages cash and investments.

**Value chain, 11,** the set of activities required to design, develop, produce, market (and deliver), and service products and services to customers.

## Discussion Questions

1. What is managerial accounting?
2. What are the three broad objectives of managerial accounting?
3. Who are the users of managerial accounting information?

4. Should a managerial accounting system provide both financial and nonfinancial information? Explain.
5. What is meant by controlling?
6. Describe the connection between planning, feedback, and controlling.
7. How do managerial accounting and financial accounting differ?
8. Explain the role of financial reporting in the development of managerial accounting. Why has this changed in recent years?
9. Explain the meaning of customer value. How is focusing on customer value changing managerial accounting?
10. What is the value chain? Why is it important?
11. Explain why today's managerial accountant must have a cross-functional perspective.
12. Briefly explain the practice of enterprise risk management and the role that can be played by managerial accountants in enterprise risk management.
13. What is the difference between a staff position and a line position?
14. The controller should be a member of the top management staff. Do you agree or disagree? Explain.
15. What is ethical behavior? Is it possible to teach ethical behavior in a managerial accounting course?
16. Briefly describe some of the common themes or pressures faced by executives who commit corporate fraud.
17. Identify the three forms of accounting certification. Which form of certification do you believe is best for a managerial accountant? Why?

## Multiple-Choice Questions

**1-1** The provision of accounting information for internal users is known as
a. accounting.
b. financial accounting.
c. managerial accounting.
d. information provision.
e. accounting for planning and control.

**1-2** The use and importance of managerial accounting is growing in each of the following areas except for
a. enterprise risk management.
b. nanotechnology advancements.
c. corporate sustainability reporting.
d. quality accounting.
e. lean accounting.

**1-3** Setting objectives and identifying methods to achieve those objectives is called
a. planning.
b. decision making.
c. controlling.
d. performance evaluation.
e. None of these.

**1-4** The process of choosing among competing alternatives is called
a. planning.
b. decision making.
c. controlling.
d. performance evaluation.
e. None of these.

**1-5** Which of the following is a characteristic of managerial accounting?
a. There is an internal focus.
b. Subjective information may be used.
c. There is an emphasis on the future.
d. It is broad-based and multidisciplinary.
e. All of these.

**1-6** An effective managerial accounting system should track information about an organization's activities in which of the following areas?
a. Development
b. Marketing
c. Production
d. Design
e. All of these

**1-7** Which of the following items does the IMA's Management Accounting Competency Framework include as an important role, skill, or ability for successful managerial accountants?
a. Data visualization
b. Data analytics
c. Data governance
d. All of these
e. None of these

**1-8** In terms of strategic positioning, which two general strategies may be chosen by a company?
a. Revenue production and cost enhancement
b. Activity-based costing and value chain emphasis
c. Increasing customer value and decreasing supplier orientation
d. Cost leadership and product differentiation
e. Product differentiation and cost enhancement

**1-9** Which of the following is *not* a common form of certification for managerial accountants?
a. Certificate in Internal Auditing
b. Certificate in External Auditing
c. Certificate in Public Accounting
d. Certificate in Management Accounting

**1-10** The chief accounting officer for a firm is the
a. chief executive officer.
b. chief operating officer.
c. vice president of sales.
d. production head.
e. controller.

**1-11** The objective of profit maximization should be constrained by the requirement that profits be achieved through
a. legal means only.
b. ethical means only.
c. any means possible.
d. both legal and ethical means.
e. None of these.

## Exercises

Objective 1

### Exercise 1-12 The Managerial Process

Each of the following scenarios requires the use of accounting information to carry out one or more managerial accounting objectives.

a. **Laboratory Manager:** An HMO approached me recently and offered us its entire range of blood tests. It provided a price list revealing the amount it is willing to pay for each test. In many cases, the prices are below what we normally charge. I need to know the costs of the individual tests to assess the feasibility of accepting its offer and perhaps suggest price adjustments on some of the tests.
b. **Operating Manager:** This report indicates that we have 30% more defects than originally targeted. An investigation into the cause has revealed the problem. We were using a lower-quality material than expected, and the waste has been higher than normal. By switching to the quality level originally specified, we can reduce the defects to the planned level.
c. **Divisional Manager:** Our market share has increased because of higher-quality products. Current projections indicate that we should sell 25% more units than last year. I want a projection of the effect that this increase in sales will have on profits. I also want to know our expected cash receipts and cash expenditures on a month-by-month basis. I have a feeling that some short-term borrowing may be necessary.
d. **Plant Manager:** Foreign competitors are producing goods with lower costs and delivering them more rapidly than we can to customers in our markets. We need to decrease the cycle time and increase the efficiency of our manufacturing process. There are two proposals that should help us accomplish these goals, both of which involve investing in computer-aided manufacturing. I need to know the future cash flows associated with each system and the effect each system has on unit costs and cycle time.
e. **Manager:** At the last board meeting, we established an objective of earning a 25% return on sales. I need to know how many units of our product we need to sell to meet this objective. Once I have the estimated sales in units, we need to outline a promotional campaign that will take us where we want to be. However, in order to compute the targeted sales in units, I need to know the expected unit price and a lot of cost information.
f. **Manager:** Perhaps the Harrison Medical Clinic should not offer a full range of medical services. Some services seem to be having a difficult time showing any kind of profit. I am particularly concerned about the mental health service. It has not shown a profit since the clinic opened. I want to know what costs can be avoided if I drop the service. I also want some assessment of the impact on the other services we offer. Some of our patients may choose this clinic because we offer a full range of services.

**Required:**

Select the managerial accounting objective(s) that are applicable for each scenario: planning, controlling (including performance evaluation), or decision making.

Objective 2

### Exercise 1-13 Differences between Managerial Accounting and Financial Accounting

Jenna Suarez, the controller for Arben Company, has faced the following situations in the past 2 weeks:

a. Ben Heald, head of production, wondered whether it would be more cost effective to buy parts partially assembled or to buy individual parts and assemble them at the Arben factory.
b. The president of Arben reminded Jenna that the stockholders' meeting was coming up, and he needed her to prepare a PowerPoint® presentation showing the income statement and balance sheet information for last year.

c. Ellen Johnson, vice president of sales, has decided to expand the sales offices for next year. She sent Jenna the information on next year's rent and depreciation information for budgeting purposes.
d. Jenna's assistant, Mike, received the information from Ellen on depreciation and added it to depreciation expenses and accumulated depreciation on office equipment.
e. Jenna compared the budgeted spending on materials used in production with the actual spending on materials used in production. Materials spending was significantly higher than expected. She set up a meeting to discuss this outcome with Ben Heald so that he could explain it.

**Required:**

Determine whether each request is relatively more *managerial accounting oriented* or *financial accounting oriented*.

### Exercise 1-14 Customer Value, Strategic Positioning

Objective 3

Adriana Alvarado has decided to purchase a personal computer. She has narrowed the choices to two: Drantex and Confiar. Both brands have the same processing speed, 6.4 gigabytes of hard-disk capacity, two USB ports, and a DVDRW drive, and each comes with the same basic software support package. Both come from mail-order companies with good reputations. The selling price for each is identical. After some review, Adriana discovers that the cost of operating and maintaining Drantex over a 3-year period is estimated to be $300. For Confiar, the operating and maintenance cost is $600. The sales agent for Drantex emphasized the lower operating and maintenance costs. The agent for Confiar, however, emphasized the service reputation of the product and the faster delivery time (Confiar can be purchased and delivered 1 week sooner than Drantex). Based on all the information, Adriana has decided to buy Confiar.

**Required:**

1. What is the total product purchased by Adriana?
2. **CONCEPTUAL CONNECTION** How does the strategic positioning differ for the two companies?
3. **CONCEPTUAL CONNECTION** When asked why she decided to buy Confiar, Adriana responded, "I think that Confiar offers more value than Drantex." What are the possible sources of this greater value? What implications does this have for the managerial accounting information system?
4. **CONCEPTUAL CONNECTION** Suppose that Adriana's decision was prompted mostly by the desire to receive the computer quickly. Informed that it was losing sales because of the longer time to produce and deliver its products, the management of the company producing Drantex decided to improve delivery performance by improving its internal processes. These improvements decreased the number of defective units and the time required to produce its product. Consequently, delivery time and costs both decreased, and the company was able to lower its prices on Drantex. Explain how these actions translate into strengthening the competitive position of the Drantex PC relative to the Confiar PC. Also discuss the implications for the managerial accounting information system.

### Exercise 1-15 Line versus Staff

Objective 4

The following describes the job responsibilities of two employees of Barney Manufacturing.

*Joan Dennison, Cost Accounting Manager*. Joan is responsible for measuring and collecting costs associated with the manufacture of the garden hose product line. She is also responsible for preparing periodic reports that compare the actual costs with planned costs. These reports are provided to the production line managers and the plant manager. Joan helps to explain and interpret the reports.

(*Continued*)