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Managerial Accounting

Chapter Preview

This chapter focuses on issues dealing with the field and substance of managerial accounting. In a previous financial accounting course, you learned about the form and content of **financial statements for external users** of financial information, such as shareholders and creditors. These financial statements are the main product of financial accounting. Managerial accounting focuses primarily on the preparation of **reports for internal users** of financial information, such as the managers and officers of a company. Managers are evaluated on the results of their decisions. Managers often make decisions that determine their company's fate—and their own. Managerial accounting provides tools that help management make decisions and evaluate the effectiveness of those decisions.

The **Chapter Preview** describes the purpose of the chapter and highlights the major topics.

The **Feature Story** helps you picture how the chapter topic relates to the real world of business and accounting. You will find references to the story throughout each chapter.

Feature Story

Accounting Keeps Businesses Afloat

Growing up on Vancouver Island, Brian Henry explored the beautiful coastline by kayak. Feeling the need to have better

equipment that was suited to the rugged environment, Mr. Henry began building sea kayaks for himself and his friends. In the late 1970s, that turned into a business, Current Designs, which expanded to design and build kayaks out of increasingly sophisticated materials. Over the years, Current Designs teamed up with world-famous kayakers to design models sold all over the world.

Meanwhile, on the inland waterways of Minnesota, Mike Cichanowski grew up paddling a canoe to explore the Mississippi River. He, too, started designing and building his own boats—in this case, canoes—and eventually took out a bank loan and built his own small shop, giving birth to the company Wenonah Canoe.

In 1991, as kayaking became more popular, Wenonah Canoe became the U.S. distributor of Current Designs kayaks. By 1999, Mr. Cichanowski made another critical business decision when Wenonah Canoe purchased majority ownership of Current Designs. In 2004, Mr. Cichanowski moved Current Designs' operations from Victoria to Minnesota, saying that 70% of boats made in Victoria were shipped to the United States. "The logistics of invoicing, shipping and handling those boats multiple times has led the company to look at a strategy of consolidating manufacturing and shipping at a single U.S. location," Wenonah said in a news release. In 2014, Wenonah expanded again, buying Hawaii-based paddleboard company C4 Waterman.

Every year, Wenonah Canoe's 90 employees produce and sell about 10,000 canoes and kayaks per year through 500 retailers, and ship about 40 containers of goods around the world.

Entrepreneurs like Mr. Cichanowski and Mr. Henry will tell you that business success is "a three-legged stool." The first leg is the knowledge and commitment to make a great product. Wenonah's canoes and Current Designs' kayaks are widely regarded as among the very best. The second leg is the

ability to sell your product, which took both companies a little longer to figure out.

The third leg is not something that you would immediately associate with entrepreneurial success. It is what goes on behind the scenes—accounting. Good accounting information is absolutely critical to the countless decisions, big and small, that ensure the survival and growth of companies. Good accounting information allowed Mr. Henry to decide to sell to Wenonah and Mr. Cichanowski to decide to buy Current Designs and later move its production to Minnesota.

Bottom line: No matter how good your product is, and no matter how many units you sell, if you don't have a firm grip on your numbers, you are up a creek without a paddle.

Sources: Hannah Jones, "Winona Ideal Base for Close-Knit Companies Calling It Home," *Minnesota Business*, November 21, 2014; Kaydi Pyette, "Wenonah Canoe Announces Addition of C4 Waterman," *Canoeroots* magazine, January 23, 2014; Darrell Ehrlick, "Wenonah Canoe Buys Kayak Firm; Move Will Bring Jobs to Winona," *WinonaDailyNews.com*, April 19, 2011; Sea Stachura, "Wenonah Canoe Steers Straight in the Recession," *Minnesota Public Radio*, www.mprnews.org, March 20, 2009; Norman Gidney, "Kayak Maker to Shut Down," *Victoria Times Colonist*, April 30, 2004, p. B4; Current Designs corporate website, www.cdkayak.com; Wenonah Canoe corporate website, www.wenonah.com.

Chapter Outline

Learning Objectives give you a framework for learning the specific concepts covered in the chapter.

LEARNING OBJECTIVES

REVIEW

PRACTICE DO IT!

| | | |
|---|---|---|
| LO 1 Explain the distinguishing features of managerial accounting. | <ul style="list-style-type: none"> • Introduction • Comparing managerial and financial accounting | DO IT! 1 Managerial Accounting Concepts |
| LO 2 Identify the three broad functions of management and the role of management accountants in an organizational structure. | <ul style="list-style-type: none"> • Management functions • Organizational structures | DO IT! 2 Managerial Accounting Overview |
| LO 3 Explain the importance of business ethics. | <ul style="list-style-type: none"> • Creating proper incentives • Code of ethical standards • Corporate social responsibility | DO IT! 3 Managerial Accounting—Ethics Concepts |
| LO 4 Identify changes and trends in managerial accounting. | <ul style="list-style-type: none"> • Service industry trends • Value chain • Balanced scorecard • The value of data analytics • Accounting organizations and professional accounting careers in Canada | DO IT! 4 Trends in Managerial Accounting |

Managerial Accounting Basics

LEARNING OBJECTIVE 1

Explain the distinguishing features of managerial accounting.

Introduction

Managerial accounting, also called management accounting, is a field of accounting that provides economic and financial information for managers and other internal users.

The skills that you will learn in this course will be vital to your future success in business. Do you believe us? Let's look at some examples of the crucial activities of employees at Current Designs, and where those activities are addressed in this textbook.

- In order to know whether it is making a profit, Current Designs needs accurate information about the cost of each kayak. But first, we explain the field and substance of managerial accounting (Chapter 1). Chapter 2 explains various managerial cost concepts that are useful in planning, directing, and controlling. We also present cost flows and the process of cost accumulation in a manufacturing environment, as well as costs and how they are reported in the financial statements. Chapters 3, 4, and 5 calculate the cost of providing a service or manufacturing a product. To stay profitable, Current Designs must adjust the number of kayaks it produces in light of changes in economic conditions and consumer tastes. It then needs to understand how changes in the number of kayaks it produces impact its production costs and profitability (Chapter 6).
- Further, Current Designs' managers must often consider alternative courses of action and gather relevant data before making their decision. For example, should the company accept a special order from a customer, produce a particular kayak component internally or outsource it, or continue or discontinue a particular product line (Chapter 7)? Chapter 8 evaluates the impact on decision-making of alternative approaches for costing inventory. One of the most important, and most difficult, decisions is what price to charge for the kayaks (Chapter 9).
- In order to plan for the future, Current Designs prepares budgets (Chapter 10), and it then compares its budgeted numbers with its actual results to evaluate performance and identify areas that need to change (Chapters 11 and 12).
- Finally, it sometimes needs to make substantial investment decisions, such as the building of a new plant (factory) or the purchase of new equipment (Chapter 13).

Someday, you are going to face decisions just like these. You may end up in sales, marketing, management, production, or finance. You may work for a company that provides medical care, produces software, or serves up mouth-watering meals. No matter what your position, and no matter what your product, the skills you acquire in this class will increase your chances of business success. Put another way, in business you can either guess or make an informed decision. As the CEO of **Microsoft** once noted: "If you're supposed to be making money in business and supposed to be satisfying customers and building market share, there are numbers that characterize those things. And if somebody can't speak to me quantitatively about it, then I'm nervous." This course gives you the skills you need to quantify information so you can make informed business decisions.

Managerial accounting applies to all types of businesses—service, merchandising, and manufacturing. It also applies to all forms of business organizations—proprietorships, partnerships, and corporations. Managerial accounting is needed in not-for-profit entities, including governments, as well as in profit-oriented enterprises.

In the past, managerial accountants were primarily engaged in cost accounting: collecting and reporting costs to management. That role has now changed significantly. First, as the manufacturing environment has become more automated, methods used to determine the amounts and types of costs in a product have changed. Second, today's managerial accountants

Essential **terms and concepts** are printed in blue where they first appear and are defined in the end-of-chapter Glossary Review.

are responsible for strategic cost management; that is, they help management evaluate how well the company is employing its resources. As a result, managerial accountants now serve as team members alongside personnel from production, marketing, and engineering when the company makes critical strategic decisions.

Comparing Managerial and Financial Accounting

There are both similarities and differences between managerial and financial accounting. First, both fields deal with the economic events of a business. Thus, their interests overlap. For example, *determining* the unit cost of manufacturing a product is part of managerial accounting. *Reporting* the total cost of goods manufactured and sold is part of financial accounting. In addition, both managerial and financial accounting require that a company's economic events be quantified and communicated to interested parties.

Illustration 1.1 summarizes the principal differences between financial accounting and managerial accounting. The varied needs for economic data among interested parties are the reason for many of the differences.

ILLUSTRATION 1.1 Differences between financial and managerial accounting

| Feature | Financial Accounting | Managerial Accounting |
|--------------------------------|--|--|
| Primary Users of Reports | External users: shareholders, creditors, and regulators | Internal users: officers and managers |
| Types and Frequency of Reports | Financial statements Quarterly and annually | Internal reports As frequently as needed |
| Purpose of Reports | General-purpose | Special-purpose for specific decisions |
| Content of Reports | Pertains to business as a whole Highly aggregated (condensed) Limited to double-entry accounting and cost data Generally accepted accounting principles | Pertains to subunits of the business Very detailed Extends beyond double-entry accounting to any relevant data Standard is relevance to decisions |
| Verification Process | Audited by CPA (chartered professional accountant) | No independent audits |

The **Do It!** exercises ask you to put newly acquired knowledge to work. They outline the Action Plan necessary to complete the exercise, and they show a Solution.

ACTION PLAN

- Understand that managerial accounting is a field of accounting that provides economic and financial information for managers and other internal users.

DO IT! 1 | Managerial Accounting Concepts

Indicate whether the following statements are true or false.

1. Managerial accountants have a single role within an organization: collecting and reporting costs to management.
2. Financial accounting reports are general-purpose and intended for external users.
3. Managerial accounting reports are special-purpose and issued as frequently as needed.
4. Managerial accounting reports must now comply with generally accepted accounting principles (GAAP).

Solution

1. False. Managerial accountants determine product costs. In addition, managerial accountants are held responsible for evaluating how well the company is employing its resources. As a result, when the company makes critical strategic decisions, managerial accountants serve as team members alongside personnel from production, marketing, and engineering.
2. True.
3. True.
4. False. Managerial accounting reports are for internal use and thus do not have to comply with GAAP.

Related exercise material: **E1.3, E1.4, E1.5, and DO IT! D1.1.**

ACTION PLAN

- **Understand that financial accounting provides information for external users.**

Management Functions and Organizational Structures

LEARNING OBJECTIVE 2

Identify the three broad functions of management and the role of management accountants in an organizational structure.

Management Functions

Managers' activities and responsibilities can be classified into three broad functions:

1. Planning
2. Directing
3. Controlling

In performing these functions, managers make decisions that have a significant impact on the organization.

Planning requires management to look ahead and to establish objectives.

- These objectives are often diverse: maximizing short-term profits and market share, maintaining a commitment to environmental protection, and contributing to social programs. For example, **Hewlett-Packard**, in an attempt to gain a stronger foothold in the computer industry, greatly reduced its prices to compete with Dell.
- A key objective of management is to add **value** to the business under its control. Value is usually measured by the trading price of the company's shares and by the potential selling price of the company.

Directing involves coordinating a company's diverse activities and human resources to produce a smoothly running operation.

- This function relates to implementing planned objectives and providing necessary incentives to motivate employees. For example, manufacturers such as **General Motors of Canada**, **Magna International**, and **Dare Foods** must coordinate their purchasing, manufacturing, warehousing, and selling. Service corporations such as **Air Canada**, **TELUS**, and **CGI** must coordinate their scheduling, sales, service, and acquisitions of equipment and supplies.
- Directing also involves selecting executives, appointing managers and supervisors, and hiring and training employees.

The third management function, **controlling**, is the process of keeping the company's activities on track.

- In controlling operations, managers determine whether planned goals are being achieved.
- When there are deviations from target objectives, managers must decide what changes are needed to get back on track. Scandals such as the **Volkswagen** emissions scandal attest to the fact that companies must have adequate controls to ensure that the company develops and distributes accurate information.

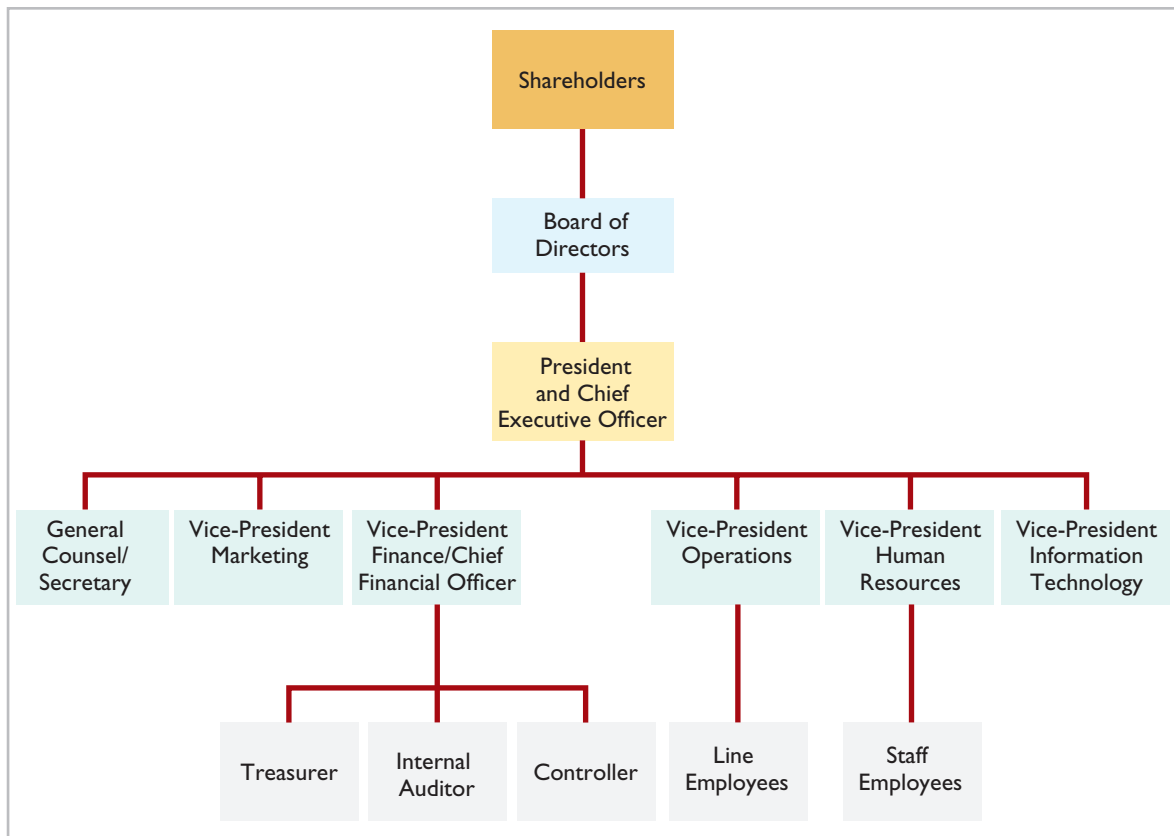
How do managers achieve control? A smart manager in a small operation can make personal observations, ask good questions, and know how to evaluate the answers. But using this approach in a large organization would result in chaos. Imagine the president of Current Designs trying to determine whether planned objectives are being met without some record of what has happened and what is expected to occur. Thus, large businesses typically use a formal system of evaluation. These systems include such features as budgets, responsibility centres, and performance evaluation reports—all of which are features of managerial accounting.

Decision-making is not a separate management function. Rather, it is the outcome of the exercise of good judgement in planning, directing, and controlling.

Organizational Structures

In order to assist in carrying out management functions, most companies prepare **organization charts** that show the interrelationships of activities and the delegation of authority and responsibility within the company. **Illustration 1.2** provides a typical organization chart showing the delegation of responsibility.

ILLUSTRATION 1.2 Corporation organization chart



Shareholders own the corporation, but they manage it indirectly through a **board of directors**, which they elect. Even not-for-profit organizations have boards of directors.

- The board formulates the operating policies for the company or organization.

- The board selects officers, such as a president and one or more vice-presidents, to execute policy and perform daily management functions.

The **chief executive officer (CEO)** has overall responsibility for managing the business. Obviously, even in a small business, in order to accomplish organizational objectives, the company relies on the delegation of responsibilities. As the organization chart in Illustration 1.2 shows, the CEO delegates responsibility to other officers. Each member of the organization has a clearly defined role to play.

Responsibilities within the company are frequently classified as either line or staff positions.

- Employees with **line positions** are directly involved in the company's main revenue-generating operating activities. Examples of line positions would be the vice-president of operations, vice-president of marketing, plant managers, supervisors, and production personnel.
- Employees with **staff positions** are involved in activities that support the efforts of the line employees. In firms like **General Motors** or **Petro-Canada** (part of **Suncor Energy**), employees in the finance, legal, and human resources departments have staff positions.
- While the activities of staff employees are vital to the company, these employees are really there only to support the line employees involved in the company's main operations.

The **chief financial officer (CFO)** is responsible for all of the accounting and finance issues the company faces. The CFO is supported by the **controller** and the **treasurer**. The controller's responsibilities include

1. maintaining the accounting records;
2. maintaining an adequate system of internal control; and
3. preparing financial statements, tax returns, and internal reports.

The treasurer has custody of the corporation's funds and is responsible for maintaining the company's cash position.

Also serving the CFO are the **internal audit staff**. The audit staff's responsibilities include

1. Reviewing the reliability and integrity of financial information provided by the controller and treasurer.
2. Ensuring that internal control systems are functioning properly to safeguard corporate assets.
3. Investigating compliance with policies and regulations.
4. In many companies, they determine whether resources are being used in the most economical and efficient fashion.

The vice-president of operations oversees employees with line positions. For example, the company might have multiple factory managers, and each one would report to the vice-president of operations. Each factory would also have department managers, such as fabricating, painting, and shipping managers, each reporting to the factory manager.

Insight boxes illustrate interesting situations in real companies and show how managers make decisions using accounting information. Guideline answers to the critical thinking questions are available at the end of the chapter.

Management Insight DPR Construction

Does a Company Need a CEO?

Can a company function without a person at the top? Nearly all companies have a CEO although some, such as **Oracle**, **Chipotle**, and **Whole Foods**, have operated with two people in the CEO position. **Samsung** even had three CEOs at the same time. On the other hand, **Abercrombie & Fitch** operated for more than two years without a CEO because its CEO unexpectedly quit and a suitable replacement was hard to find. In fact, some companies replace the CEO position with a management committee. These companies feel this structure improves decision-making and increases collaboration. For example, the 4,000 employees of

DPR Construction are overseen by an eight-person committee. Committee members are rotated off gradually but then continue to advise current members. The company notes that this approach provides more continuity over time than the sometimes sudden and harsh changes that occur when CEOs are replaced.

Source: Rachel Feintzeig, "Companies Manage with No CEO," *The Wall Street Journal* (December 13, 2016).

What are some of the advantages cited by companies that choose a structure that lacks a CEO? (The answer is available at the end of the chapter.)

ACTION PLAN

- Analyze managers' activities and responsibilities.

DO IT! 2 | Managerial Accounting Overview

Indicate whether the following statement is true or false.

- Managers' activities and responsibilities can be classified into three broad functions: cost accounting, budgeting, and internal control.

Solution

- False. Managers' activities and responsibilities are classified into three broad functions: planning, directing, and controlling. Planning requires managers to look ahead to establish objectives. Directing involves coordinating a company's diverse activities and human resources to produce a smooth-running operation. Controlling is keeping the company's activities on track.

Related exercise material: **E1.6, E1.7, and DO IT! D1.1.**

Business Ethics

LEARNING OBJECTIVE 3

Explain the importance of business ethics.

All employees in an organization are expected to act ethically in their business activities. Given the importance of ethical behaviour to corporations and their owners (shareholders), an increasing number of organizations provide codes of business ethics for their employees.

Creating Proper Incentives

Companies like **BCE** (owner of **Bell Canada**), **CGI**, **Motorola**, **IBM**, and **Nike** use complex systems to control and evaluate the actions of managers. Unfortunately, these systems and controls sometimes unwittingly create incentives for managers to take unethical actions. Companies prepare budgets to provide direction. Because the budget is also used as an evaluation tool, some managers try to "game" the budgeting process by using budgetary slack; that is, they build some slack into the budget by underestimating their division's predicted performance so that it will be easier to meet their performance targets. But if the budget is set at unattainable levels, managers sometimes take unethical actions to meet the targets in order to receive higher compensation or, in some cases, to keep their jobs.

Business Insight Ethics Breach at Valeant Pharmaceuticals



AP Photo/The Canadian Press, Ryan Remiorz

Montreal-based **Valeant Pharmaceuticals International Inc.** was once the most valuable public company in Canada. Instead of spending on research and development of its own drugs, it acquired other companies with existing patents. It often paid a premium for those companies, which it had to book to goodwill. Under accounting standards, Valeant had to adjust income or expenses

within one year of acquiring the companies if new information about them came to light in that measurement adjustment period. From 2010 to 2015, Valeant spent more than U.S. \$27 billion on acquisitions. Yet in each of those years, the company's financial statements did not adjust income or expenses in prior periods. And it said its adjustments to goodwill "did not have a significant impact on the Company's previously reported consolidated financial statements." In 2016, Valeant restated results for the previous two years. Among other things, it had incorrectly recorded U.S. \$58 million in revenue from sales to Philidor, a distribution company that was a related party. Because of this and other accounting

irregularities, in June 2016, Valeant's share price plunged to less than U.S. \$25 from a peak of U.S. \$262, wiping out almost U.S. \$80 billion in market capitalization. In 2018, the former Philidor CEO and a former Valeant executive were convicted of fraud and sentenced to prison. In late 2019, Bausch Health Companies Inc., Valeant's new name, announced it settled a U.S. \$1.21-billion class action lawsuit by U.S. shareholders, and admitted no liability or wrongdoing. A similar lawsuit by Canadian shareholders was still active at that time. After announcing its revenue restatement in 2016, a Valeant news release said, "the tone at the top of the organization and the performance-based environment at the company, where challenging targets were set and achieving those targets was a key performance expectation, may have been contributing factors resulting in the company's improper revenue recognition."

Sources: Christine Dobby, "Bausch Health Agrees to Pay US\$1.21-Billion to Settle Shareholder Lawsuit," *The Globe and Mail*, December

16, 2019; David Milstead, "Valeant's Pay Approach as Much a Do-Over for CEO as an Inspiring Tale of Corporate Responsibility," *The Globe and Mail*, April 29, 2018; Peter Eavis, "Valeant's Accounting Error a Warning Sign of Bigger Problems," *The New York Times*, March 28, 2016; "Valeant Announces CEO Succession Plan and Changes to Board of Directors; Provides Accounting and Financial Reporting Update," Valeant news release, March 21, 2016; Alexandra Bosanac, "Why the Trouble at Valeant Starts with Its Board of Directors," *Canadian Business*, March 24, 2016; Francine McKenna, "Valeant Uses Rare Accounting Maneuver for Acquisitions that Cushions Income," MarketWatch, February 12, 2016.

What can companies do to create disincentives for managers to act unethically? (The answer is available at the end of the chapter.)

In a recent example, the largest bank in the United States, Wells Fargo, admitted that it had fired 5,300 employees for opening more than 2 million accounts without customer approval or knowledge. According to the director of the Consumer Financial Protection Bureau, "Wells Fargo employees secretly opened unauthorized accounts to hit sales targets and receive bonuses."

Code of Ethical Standards

In response to corporate scandals in 2000 and 2001, the U.S. Congress enacted legislation to help prevent lapses in internal control. This legislation, referred to as the Sarbanes-Oxley Act of 2002 (SOX), had important implications for the financial community.

- CEOs and CFOs must now certify that the financial statements give a fair presentation of the company's operating results and its financial condition.
- Top managers must certify that the company maintains an adequate system of internal controls to safeguard the company's assets and ensure accurate financial reports.
- Companies now pay more attention to the composition of the board of directors. In particular, members of the audit committee of the board of directors must all be entirely independent (that is, non-employees) and at least one must be a financial expert.
- The law substantially increases the penalties for misconduct.

Canada took similar action after scandals involving Canadian companies such as **Bre-X**, which fraudulently reported gold samples; **Cinar**, a media company accused of misusing tax credits; and **Livent**, a theatre production company whose top executives were found guilty of fraud in misstating financial statements. As discussed in the December 2003 issue of *CA Magazine*, "after the Bre-X Minerals Ltd., Cinar, and Livent Inc. scandals, steps were also taken to remedy market and financial manipulations . . . the Canadian Securities Administrators, federal and provincial securities regulators, the Office of the Superintendent of Financial Institutions (OSFI) and the accounting profession set up the Canadian Public Accountability Board (CPAB), which is charged with overseeing the independence and transparency of the Canadian accounting system. According to the OSFI, 'The mission of the CPAB is to contribute to public confidence in the integrity of financial reporting of Canadian public companies by promoting high quality, independent auditing . . .'"

In January 2004, the Ontario Securities Commission (OSC), in conjunction with the Canadian Securities Administrators, introduced regulations governing the composition and duties of audit committees, as well as their members' behaviour. These regulations were also adopted by all provincial and territorial securities regulators, except for British Columbia's. "The rules are as robust as parallel rules required by the U.S. Sarbanes-Oxley legislation, but address unique Canadian concerns," said OSC chair David Brown.¹

¹Gilles des Roberts, "On the Hot Seat," *CA Magazine* (December 2003).

Canadian corporate governance regulation was established in 2005. *National Policy 58-201 Corporate Governance Guidelines* provides guidance on corporate governance practices for various reasons including the need to achieve a balance between protecting investors and encouraging fair and efficient capital markets.

To provide guidance for managerial accountants, the worldwide Institute of Management Accountants (IMA) has developed a Statement of Ethical Professional Practice. According to this Statement, 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.

In Canada, Chartered Professional Accountants of Canada plays an important role in promoting high standards of ethics in the accounting profession, including managerial accounting. The CPA Code of Professional Conduct outlines for members their obligations to the public as well as the principles of fair financial and managerial reporting and business practices.

Corporate Social Responsibility

Many companies have begun to evaluate not just corporate profitability but also **corporate social responsibility**.

- Corporate social responsibility considers a company's efforts to employ sustainable business practices with regard to its employees and the environment.
- This is sometimes referred to as the **triple bottom line** because it evaluates a company's performance with regard to people, planet, and profit.

These companies are still striving to maximize profits—in a competitive world, they won't survive long if they don't. In fact, you might recognize a few of the names on the Forbes.com list of the 100 most sustainable companies in the world, such as **Tesla, adidas, Toyota, Bank of Montreal**, or the **Canadian National Railway**. These companies have learned that, with a long-term, sustainable approach, they can maximize profits while also acting in the best interest of their employees, their communities, and the environment. At various points within this textbook, we will discuss situations where real companies use the very skills that you are learning to evaluate decisions from a sustainable perspective.

ACTION PLAN

- Understand the importance of espousing and promoting high standards of ethics in the accounting profession.

DO IT! 3 | Managerial Accounting—Ethics Concepts

Indicate whether the following statements are true or false.

1. As a result of the Sarbanes-Oxley Act of 2002, managerial accounting reports must now comply with accounting principles accepted by the accounting profession.
2. Top managers must certify that a company maintains an adequate system of internal controls.
3. A company's efforts to employ sustainable business practices with regard to its employees, society, and the environment is referred to as corporate social responsibility.

Solution

1. False. SOX clarifies top management's responsibility for the company's financial statements. In addition, top managers must certify that the company maintains an adequate system of internal control to safeguard the company's assets and ensure accurate financial reports.
2. True.
3. True.

Related exercise material: **E1.8** and **DO IT! D1.1**.

Managerial Accounting Today

LEARNING OBJECTIVE 4

Identify changes and trends in managerial accounting.

To compete successfully in today's deregulated global environment, many Canadian and American manufacturing and service industries have begun implementing strategic management programs. These are designed to improve quality, reduce costs, and regain the competitive position the companies once held in the world marketplace. This approach focuses on the long-term goals and objectives of the organization, as well as a full analysis of the environment in which the business is operating. The analysis covers all the organization's internal operations and resources, as well as the external aspects of its environment. It includes competitors, suppliers, customers, and legal and regulatory changes, as well as the economy as a whole.

This new approach requires changes to traditional management accounting, which has been widely criticized for being too narrow, highly quantitative, and aimed at the needs of financial reporting, and for contributing little to the overall policy and direction of the organization. The result is a new variety of management accounting that expands the information provided to decision makers. The following section explains the expanding role of management accounting in the twenty-first century due to the expansion of the service industry.

Service Industry Trends







The Canadian and U.S. economies, in general, have shifted toward an emphasis on providing services, rather than goods.

- Today approximately 80% of Canadian and U.S. workers are employed by service companies.
- Airlines, marketing agencies, telecommunication companies, and governmental agencies are just a few examples of service companies.
- Service companies differ from manufacturing companies in that services are consumed immediately by customers.

For example, a marketing agency performs services for its clients that are immediately consumed by the customer in the form of a marketing plan. In contrast, a manufacturing company like **Boeing** records the airplanes that it manufactures as inventory until they are sold.

Managers of service companies look to managerial accounting to answer many questions. **Illustration 1.3** presents examples of such questions. In some instances, the managerial accountant may need to develop new systems for measuring the cost of serving individual customers. In others, they may need new operating controls to improve the quality and efficiency of specific services. Many of the examples we present in subsequent chapters will relate to service companies. To highlight the relevance of the techniques used in this course for service companies, we have placed a service company wordmark next to those items in the end-of-chapter materials that relate to non-manufacturing companies.

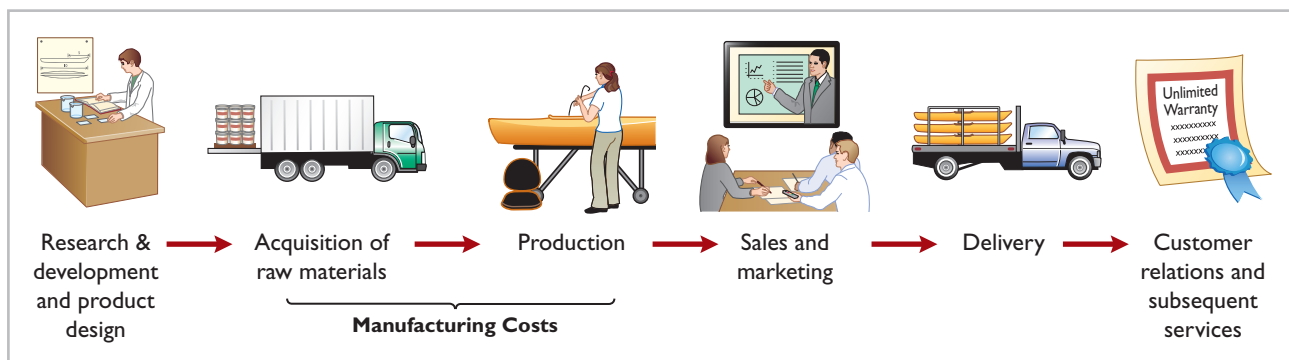
ILLUSTRATION 1.3 Service industries and companies and the managerial accounting questions they face

| Industry/Company | Questions Faced by Service-Company Managers |
|---|---|
|  | Transportation (WestJet Airlines) Should we buy new or used planes? Should we service a new route? |
|  | Package delivery services (Purolator, FedEx) What fee structure should we use? What mode of transportation should we use? |
|  | Telecommunications (BCE Inc.) What fee structure should we use? Should we service this new community? How many households will it take to break even? Should we invest in fibre optic Internet or lay new cable? |
|  | Professional services (lawyers, accountants, dentists) How much should we charge for particular services? How much office overhead should we allocate to particular jobs? How efficient and productive are individual staff members? |
|  | Financial institutions (Bank of Montreal, TD Waterhouse) Which services should we charge for, and which should we provide for free? Should our fees vary depending on the size of the customers' accounts? |
|  | Health care (TLC Laser Eye Centres) Should we invest in new equipment? How much should we charge for various services? How should we measure the quality of the services provided? |

Value Chain

The **value chain** is all activities associated with providing a product or service. For a manufacturer, these include research and development, product design, the acquisition of raw materials, production, sales and marketing, delivery, customer relations, and subsequent service. **Illustration 1.4** shows the value chain for a manufacturer.

ILLUSTRATION 1.4 A manufacturer's value chain



Technological Change

Technology has played a large role in the value chain. For example, many companies now employ **enterprise resource planning (ERP) software systems**, such as those provided by the German company SAP.

- ERP systems provide a comprehensive, centralized, and integrated source of information that is used to manage all major business processes, including purchasing, manufacturing, and recording human resources.
- In large companies, an ERP system might replace as many as 200 individual software packages. For example, an ERP system can eliminate the need for individual software packages for personnel, inventory management, receivables, and payroll.
- Because the value chain goes beyond the company walls, ERP systems also collect information from and provide it to the company's major suppliers, customers, and business partners.

Another example of technological change is **computer-integrated manufacturing (CIM)**. Using CIM, many companies can now automate manufacturing processes. An example is the use of robotic equipment in the steel and automobile industries. Workers monitor the manufacturing process by watching instrument panels. Automation significantly reduces direct labour costs in many cases.

Just-in-Time Inventory Methods

Many companies have significantly lowered their inventory levels and costs by using **just-in-time (JIT) inventory** methods, which is an innovation that resulted from the focus on the value chain.

- Under a just-in-time method, goods are manufactured or purchased just in time for use. An example is **Dell Corporation**, which takes less than 48 hours to assemble a computer to customer specifications and put it on a truck. By integrating its information systems with those of its suppliers, Dell reduced its inventories to nearly zero.

However, JIT also necessitates increased emphasis on product quality. Because JIT companies do not have excess inventory on hand, they cannot afford to stop production because of defects or machine breakdowns. If they stop production, deliveries will be delayed and customers will be unhappy.

Quality

JIT inventory systems also require an increased emphasis on product quality. Many companies have installed **total quality management (TQM)** systems to reduce defects in finished products.

- The goal of TQM is to achieve zero defects.
- TQM systems require timely data on defective products, rework costs, and the cost of honouring warranty contracts.
- This information is used to help redesign the product so it is less likely to have a defect. Or it may be used to re-engineer the production process to reduce set-up time and decrease the potential for error.
- TQM systems also provide information on non-financial measures, such as customer satisfaction, the number of service calls, and the time needed to generate reports.
- Attention to these measures, which employees can control, leads to increased profitability and improves all aspects of the value chain.

Activity-Based Costing

Overhead costs cannot be directly traced to individual products. But to determine each product's cost, overhead must be allocated to the various products. In order to obtain more accurate product costs, many companies now allocate overhead using **activity-based costing (ABC)**.

- Under ABC, overhead is allocated based on each product's use of resources as it undergoes various activities. For example, the company can keep track of the cost of setting up machines for each batch of a production process. Then a particular product can be allocated part of the total set-up cost based on the number of set-ups that product required.
- Activity-based costing is beneficial because it results in more accurate product costing and in the more careful scrutiny of all activities in the **supply chain**. For example, if a product's cost is high because it requires a high number of set-ups, management will be motivated to determine how to produce the product using as few machine set-ups as possible. ABC is now widely used by both manufacturing and service companies. Chapter 5 discusses ABC further.

Theory of Constraints

All companies have certain aspects of their business that create bottlenecks—constraints that limit the company's potential profitability. The **theory of constraints** is a specific approach used to identify and manage constraints in order to achieve the company's goals.

- This involves identification of constraints within the value chain that limit a company's profitability.
- Once a major constraint has been identified and eliminated, the company moves on to fix the next most significant constraint.

Automobile manufacturer **General Motors** found that it is most profitable when it focuses on fixing bottlenecks, rather than worrying about whether all aspects of the company are functioning at full capacity. It has greatly improved the company's ability to effectively use overtime labour while meeting customer demand. Chapter 7 discusses applications of the theory of constraints.

Business Insight “Lean” Luxury

Louis Vuitton is a French manufacturer of high-end handbags, luggage, and shoes. Its reputation for quality and style allows it to charge up to several thousand dollars for an item. But often in the past, when demand was hot, supply was nonexistent—shelves were empty, and would-be buyers left empty-handed.

Luxury-goods manufacturers used to consider stock-outs to be a good thing, but Louis Vuitton changed its attitude. The company adopted the “lean” processes used by car manufacturers and electronics companies to speed up production. Work is done by flexible teams, with jobs organized based on how long a task takes. Team members were reconfigured into U-shaped workspaces to save time and floor space, and robots are used in some factories to save workers from walking to get more materials. By reducing wasted time and eliminating bottlenecks, what used to take 20 to 30 workers eight days to do now takes 6 to 12 workers one day. Also, production employees who used to specialize in a single task on a single product are now multiskilled. This allows them to quickly switch products to meet demand.

To make sure that the factory is making the right products, within a week of a product launch, Louis Vuitton stores around the world feed sales information to the headquarters in France, and production is adjusted accordingly. Finally, the new production processes have also improved quality. Returns of some products are down by two-thirds, which makes quite a difference to the bottom line when the products are pricey.

Sources: Hugues Pichon, “Lean à la Mode,” *Lean Management Journal*, November 2012, p. 29; “Louis Vuitton, l’industriel,” *L’Usine Nouvelle*, July 7, 2011; Christina Passariello, “At Vuitton, Growth in Small Batches,” *The Wall Street Journal*, June 27, 2011; Christina Passariello, “Louis Vuitton Tries Modern Methods on Factory Lines,” *Wall Street Journal*, October 9, 2006.

What are some of the steps that this company has taken to ensure that production meets demand? (The answer is available at the end of the chapter.)

Lean Manufacturing

Lean manufacturing was originally pioneered by Japanese automobile manufacturer **Toyota** but is now used worldwide. Lean manufacturing is a process increasingly used by many firms to manage their operations more efficiently and with more control. It sets out to eliminate waste and to concentrate more accurately on customer needs. The process is in contrast to traditional mass-production operations, which maximize profits through efficiency of machine utilization and economies of scale and require large amounts of direct labour to complete most products. Today most products require little direct labour to complete, due in large part to advancements in automation. Customers now dictate requirements to suppliers and often look for smaller quantities of individualized products. Lean manufacturing was developed in response to this changing manufacturing environment.

Researchers have highlighted five basic principles that are crucial to the lean thinking process: specify a value, identify the value stream, create flow, respond to customer pull or demands, and aim for perfection.

- Step one, value, is the process of “target costing,” which is the acceptable cost customers are willing to pay for a specific product. The key is to achieve the optimal price for customers while realizing the greatest profit potential for the company.
- Step two, the value stream, is the entire flow of a product’s life cycle through each stage of production. It is the central element in understanding how a company can evaluate what is value-added and what is a waste.
- Step three, the flow, refers to the need for the production process to have a continuous flow. Any disruptions in the value stream can have detrimental effects on a company’s operations and on its customer satisfaction.
- Step four, the pull principle, states that a product should not be made until a customer orders it. To achieve this pull approach, the company’s production capacity is flexible and each stage of the value chain is well designed and defined.
- The final principle, perfection, deals with the target quality that management seeks to obtain via its customers’ needs.

Changing traditional mass-production thinking to lean thinking requires changes in the ways companies control, measure, and account for their processes. Chapters 8 and 9 discuss some applications of lean manufacturing.

Balanced Scorecard

As companies implement various business practice innovations, managers have sometimes focused too enthusiastically on the latest innovation and paid less attention to other areas of the business. For example, in focusing on improving quality, companies sometimes lose sight of cost/benefit considerations. Similarly, in focusing on reducing inventory levels through just-in-time inventory, companies sometimes lose sales due to inventory shortages.

- The **balanced scorecard** corrects for management’s sometimes limited perspective. A balanced scorecard is a performance-measurement approach that uses both financial and non-financial measures to evaluate all aspects of a company’s operations in an *integrated* way.
- The performance measures are linked in a cause-and-effect fashion to ensure that they all tie into the company’s overall objectives.

For example, in order to increase return on assets, sales must increase. In order to increase sales, customer satisfaction must be increased. In order to increase customer satisfaction, product defects must be reduced. In order to reduce product defects, employee training must be increased. Note the linkage, which starts with employee training and ends with return on assets. Each objective will have associated performance measures.

The use of the balanced scorecard is widespread among well-known and respected companies. For example, **Hilton Hotels Corporation** uses the balanced scorecard to evaluate the

performance of employees at all of its hotel chains. **Walmart** employs the balanced scorecard and actually extends its use to the evaluation of its suppliers. For example, Walmart awarded **Welch Company** the “Dry Grocery Division Supplier of the Year Award” for its balanced scorecard results. The balanced scorecard is discussed further in Chapter 12.

The Value of Data Analytics

Companies have never had so much available data. In many companies, virtually every aspect of operations—the employees, the customers, even the manufacturing equipment—leaves a data trail. However, while “big data” can be impressive, it can also be overwhelming.

- Having all the data in the world will not necessarily lead to better results.
- The trick is having the skills and know-how to use the data in ways that result in more productive (and happier) employees, more satisfied customers, and more profitable operations.

It is therefore not surprising that one of the most rapidly growing areas of business today is data analytics. **Data analytics** is the use of techniques, which often combine the use of software and the knowledge of statistics, to analyze data to make informed decisions.

Throughout this text, we offer many examples of how successful companies are using data analytics. We also provide examples of one analytical tool, data visualizations. **Data visualizations** often help managers acquire a more intuitive understanding of (1) the relationships between variables and (2) business trends.

Data Analytics Insight The Walt Disney Company



Helen Sessions/Alamy Stock Photo

Using Data in Its Own World

The Walt Disney Company makes fun seem effortless at its theme parks, but there is a magic mountain of data collection going on behind all the fun. For example, Disney uses behavioural analytics, which uses data to both predict and influence customer behaviour, in countless ways. Disney collects the data through its “MagicBands” worn by visitors to the parks. While the MagicBands provide visitors with many benefits (e.g., delivering customized itineraries, reducing wait lines, and providing customer recognition by Disney characters), these bands are also delivering continuous information to the company about the location, activities, eating habits, and purchases of Disney visitors.

Disney uses the MagicBand information to support daily adjustments of operations as well as long-term planning. For example, the company can use this information to monitor park usage and subsequently encourage visitors to change their itinerary to a different activity that will require a shorter wait time. If customers are waiting in line, they aren’t happy—and they’re also not spending money. Long-term planning uses of MagicBand information include designing new attractions and updating menu options in response to supply and demand.

Source: Randerson112358, “How Disney World Uses Big Data,” *medium.com* (May 18, 2019).

What is behavioural analytics, and how does Disney use it to minimize lines at its theme parks? (The answer is available at the end of the chapter.)

Accounting Organizations and Professional Accounting Careers in Canada

In Canada, the accounting profession was reorganized by the founding of CPA Canada (Chartered Professional Accountants of Canada) in 2013, into which the three legacy accounting bodies (Chartered Accountants (CA), Certified Management Accountants (CMA), and Certified General Accountants (CGA)) were merged.

Because of the risks and opportunities facing the accounting profession in Canada and worldwide, CPA Canada was founded to create a larger unified profession that would mean a more prominent and cohesive Canadian presence internationally. For instance, the AICPA (American Institute of Certified Public Accountants) is aggressively seeking to expand its

global footprint by opening exam centres for the U.S. CPA exam outside of the United States. In conjunction with the CIMA (Chartered Institute of Management Accountants—in the UK), the AICPA jointly developed a new global management accounting designation (CGMA).

Further, it was thought that CPA Canada could provide enhanced professional development and training opportunities as well as improved services and benefits to its members by eliminating duplication and competition among the former accounting bodies. Lifelong learning is an important part of the profession and, as a CPA, member professional development continues through taking courses, some leading to specializations such as tax, forensic accounting, strategic management, and public sector accounting.

ACTION PLAN

- Develop a forward-looking view, in order to advise and provide information to various members of the organization.
- Understand current business trends and issues.

DO IT! 4 | Trends in Managerial Accounting

Match the descriptions that follow with the corresponding terms.

Descriptions:

1. _____ All activities associated with providing a product or service.
2. _____ A method of allocating overhead based on each product's use of activities in making the product.
3. _____ Systems implemented to reduce defects in finished products with the goal of achieving zero defects.
4. _____ A performance-measurement approach that uses both financial and non-financial measures, tied to company objectives, to evaluate a company's operations in an integrated fashion.
5. _____ Inventory system in which goods are manufactured or purchased just as they are needed for use.

Terms:

- a. Activity-based costing
- b. Balanced scorecard
- c. Just-in-time (JIT) inventory
- d. Total quality management (TQM)
- e. Value chain

Solution

1. e 2. a 3. d 4. b 5. c

Related exercise material: E1.9 and DO IT! D1.2.

All About You



jhorrocks/Getty Images

How Sharp Are Your Decision-Making Skills?

Good financial information is crucial for management decision-making. You've already made important decisions in choosing a university,

a program, and courses. What factors went into your decision—how much was factual and how much was intuitive? Do you feel you made the right decision? A 2019 survey of more than 18,000 first-year students at 46 Canadian universities found that more than 9 in 10 said they were satisfied with their decision to attend their university, and about 7 in 10 felt that a university degree was worth it. This is good news for them, because the average university

undergraduate tuition in Canada for the 2019–20 academic year was \$6,463, so a lot of money is at stake.

What Do You Think?

Suppose you haven't chosen a major yet. You research information on expected salaries for graduates in various fields. Should you choose your major based on potential earnings?

YES—University is costly and hard work so I want to see a good return on my money and time invested.

NO—I want to study and work in a field that I love; the money will follow.

Sources: Canadian University Survey Consortium, “2019 First Year Students Survey Master Report,” June 2019; Statistics Canada, “Tuition Fees for Degree Programs, 2019/2020,” *The Daily*, September 4, 2019.

The **Learning Objectives Review** summarizes the main points related to the Learning Objectives. It gives you an opportunity to review what you have learned.

Review and Practice

Learning Objectives Review

1 Explain the distinguishing features of managerial accounting.

Managerial accounting is needed in all types of businesses—service, merchandising, and manufacturing. It also applies to all forms of business organization—proprietorships, partnerships, and corporations. Managerial accounting is needed in not-for-profit entities, as well as in profit-oriented enterprises. Managerial accounting provides tools that help management make decisions and evaluate the effectiveness of those decisions.

The distinguishing features of managerial accounting are

- the primary users of reports—internal users, who are officers, department heads, managers, and supervisors in the company;
- the type and frequency of reports—internal reports that are issued as frequently as needed;
- the purpose of reports—to provide special-purpose information for a particular user for a specific decision;
- the content of reports—pertains to subunits of the business and may be very detailed and may extend beyond the double-entry accounting system; the reporting standard is relevant to the decision being made; and
- the verification of reports—no independent audits.

2 Identify the three broad functions of management and the role of management accountants in an organizational structure.

The three functions are planning, directing, and controlling. Planning requires management to look ahead and to establish objectives. Directing involves coordinating a company's diverse activities and human resources to produce a smoothly running operation. Controlling is the process of keeping the activities on track.

Management accountants serve as staff members in an organization and play an important role in providing the required information for decision-making.

3 Explain the importance of business ethics.

All employees in an organization are expected to act ethically in their business activities. In Canada, the professional accounting organization promotes high standards of ethics in the accounting profession. These standards of ethics can be used as guidelines in dealing with the public and the organization's members. Moreover, companies are now evaluating their performance with regard to their corporate social responsibility.

4 Identify changes and trends in managerial accounting.

Managerial accounting has experienced many changes in recent years. Among these are a shift toward meeting the needs of service companies and improving practices to better meet the needs of managers. Improved practices include a focus on managing the value chain through techniques such as just-in-time inventory and technological applications such as enterprise resource planning (ERP). In addition, techniques have been developed to improve decision-making, such as the theory of constraints and activity-based costing (ABC). Finally, many companies now use the balanced scorecard and data analytics in order to have a more comprehensive view of the company's operations. Data analytics is important in business to understand problems facing an organization, and to use data to both predict and influence customer behaviour.

In Canada, the accounting profession has been reorganized by the founding of CPA Canada (Chartered Professional Accountants of Canada) in 2013, into which the three legacy accounting bodies—Chartered Accountants (CA), Certified Management Accountants (CMA), and Certified General Accountants (CGA)—were merged.

Glossary Review

Activity-based costing (ABC) A method of allocating overhead based on each product's use of activities. (p. 1-14)

Balanced scorecard A performance-measurement approach that uses both financial and non-financial measures that are tied to company objectives to evaluate a company's operations in an integrated way. (p. 1-15)

Board of directors The group of officials elected by the shareholders of a corporation or non-profit organization to formulate operating policies, select officers, and otherwise manage the company. (p. 1-6)

Chief executive officer (CEO) The corporate officer who has overall responsibility for managing the business; they delegate parts of that responsibility to other corporate officers. (p. 1-7)

Chief financial officer (CFO) The corporate officer who is responsible for all of a company's accounting and finance issues. (p. 1-7)

Controller The financial officer who is responsible for a company's accounting records, system of internal control, and preparation of financial statements, tax returns, and internal reports. (p. 1-7)

Corporate social responsibility The efforts of a company to employ sustainable business practices with regard to its employees and the environment. (p. 1-10)

Data analytics The use of techniques, often combining software and the knowledge of statistics, to analyze data to make informed decisions. (p. 1-16)

Data visualization The pictorial representation of data that shows the viewer the relationship between different types of data. (p. 1-16)

Enterprise resource planning (ERP) software system Software that provides a comprehensive, centralized, integrated source of information that is used to manage all major business processes. (p. 1-13)

Just-in-time (JIT) inventory An inventory system in which goods are manufactured or purchased just in time for use. (p. 1-13)

Line positions Jobs that are directly involved in a company's main revenue-generating operating activities. (p. 1-7)

Managerial accounting A field of accounting that provides economic and financial information for managers and other internal users. (p. 1-3)

Staff positions Jobs that support the efforts of line employees. (p. 1-7)

Supply chain All activities from the receipt of an order to the delivery of a product or service. (p. 1-14)

Theory of constraints The practice of identifying constraints that impede a company's ability to provide a good or service, and dealing with the constraints to maximize profitability. (p. 1-14)

Total quality management (TQM) Systems implemented to reduce defects in finished products with the goal of achieving zero defects. (p. 1-13)

Treasurer The financial officer who is responsible for the custody of a company's funds and for maintaining its cash position. (p. 1-7)

Triple bottom line The evaluation of a company's social responsibility performance with regard to people, planet, and profit. (p. 1-10)

Value chain All activities associated with providing a product or service. (p. 1-12)

Exercises and many more assessment tools and resources are available for practice in WileyPLUS.

Self-Study Questions

Answers are at the end of this section.

1. **(LO 1)** Managerial accounting
 - a. is governed by generally accepted accounting principles.
 - b. emphasizes special-purpose information.
 - c. pertains to the entity as a whole and is highly aggregated.
 - d. is limited to cost data.
2. **(LO 1)** Managerial accounting information is generally prepared for
 - a. shareholders.
 - b. managers.
 - c. regulatory agencies.
 - d. investors.
3. **(LO 1)** Managerial accounting information
 - a. pertains to the entity as a whole and is highly aggregated.
 - b. must be prepared according to generally accepted accounting principles.
 - c. pertains to subunits of the entity and may be very detailed.
 - d. is prepared only once a year.
4. **(LO 1)** The major reporting standard for management accountants is
 - a. the Statement of Ethical Professional Practice.
 - b. the Sarbanes-Oxley Act of 2002.
 - c. relevance to decisions.
 - d. generally accepted accounting principles.
5. **(LO 2)** The management of an organization performs several broad functions. They are
 - a. planning, directing, and selling.
 - b. planning, directing, and controlling.
 - c. planning, manufacturing, and controlling.
 - d. directing, manufacturing, and controlling.
6. **(LO 3)** Corporate social responsibility refers to
 - a. management's practice of reviewing all business processes in an effort to increase productivity and eliminate waste.
 - b. an approach used to allocate overhead based on each product's use of activities.
 - c. the attempt by management to identify and eliminate constraints within the value chain.
 - d. efforts by companies to employ sustainable business practices with regard to employees and the environment.
7. **(LO 3)** After passage of the Sarbanes-Oxley Act,
 - a. reports prepared by managerial accountants must be audited by CPAs.
 - b. CEOs and CFOs must certify that financial statements give a fair presentation of the company's operating results.
 - c. the audit committee, rather than top management, is responsible for the company's financial statements.
 - d. reports prepared by managerial accountants must comply with generally accepted accounting principles.

8. (LO 4) Which one of the following is **not** a main component of the value chain sequence?
- ERP
 - Sales and marketing
 - Production
 - Customer relations
9. (LO 4) What is “balanced” in the balanced scorecard approach?
- The number of products produced
 - The emphasis on financial and non-financial performance measurements

- The amount of costs allocated to products
- The number of defects found in each product

10. (LO 4) Which of the following managerial accounting techniques attempts to allocate manufacturing overhead in a more meaningful fashion?
- Just-in-time inventory
 - Total quality management
 - Balanced scorecard
 - Activity-based costing

Solutions

- b.** Managerial accounting emphasizes special-purpose information. The other choices are incorrect because (a) financial accounting is governed by generally accepted accounting principles, (c) financial accounting pertains to the entity as a whole and is highly aggregated, and (d) cost accounting and cost data are a subset of management accounting.
- b.** Managerial accounting information is generally prepared for internal users, such as managers, not for external users, such as (a) shareholders, (c) regulatory agencies, and (d) investors.
- c.** Managerial accounting information pertains to subunits of the entity, may be very detailed, and may be prepared at any time, when required by decision makers. Financial accounting information (a) pertains to the entity as a whole and is highly aggregated, (b) must be prepared according to generally accepted accounting principles, and (d) is prepared only once a year or at other regular intervals, when required by governments, shareholders, lenders, and other stakeholders.
- c.** Relevance to decisions is the major reporting standard for management accountants. Therefore (a) the Statement of Ethical Professional Practice, (b) the Sarbanes-Oxley Act of 2002, and (d) generally accepted accounting principles are incorrect.
- b.** Planning, directing, and controlling are the broad functions performed by the management of an organization. The other choices are incorrect because (a) selling is performed by the sales group in the organization, not by management; (c) manufacturing is performed by the manufacturing group in the organization, not by management;

and (d) manufacturing is performed by the manufacturing group in the organization, not by management.

- d.** Corporate social responsibility refers to efforts by companies to use sustainable business practices with regard to employees and the environment. The other choices are incorrect because (a) defines lean manufacturing, (b) refers to activity-based costing, and (c) describes the theory of constraints.
- b.** CEOs and CFOs must certify that financial statements give a fair presentation of the company’s operating results. The other choices are incorrect because (a) reports prepared by financial (not managerial) accountants must be audited by CPAs; (c) SOX clarifies that top management, not the audit committee, is responsible for the company’s financial statements; and (d) reports by financial (not managerial) accountants must comply with GAAP.
- a.** The value chain is all activities associated with providing a product or service. It includes production, sales and marketing, delivery, and customer relations. It does not include ERP.
- b.** A balanced scorecard is a performance-measurement approach that uses both financial and non-financial measures to evaluate all aspects of a company’s operations in an *integrated* way, not (a) the number of products produced, (c) the amount of costs allocated to products, or (d) the number of defects found in each product.
- d.** Activity-based costing attempts to allocate manufacturing overhead in a more meaningful fashion. Therefore, choices (a) just-in-time inventory, (b) total quality management, and (c) balanced scorecard are incorrect.

DO IT! Review

Identify managerial accounting concepts.

D1.1 (LO 1, 2, 3) Indicate whether the following statements are true or false.

- Managerial accountants explain and report manufacturing and non-manufacturing costs and determine cost behaviours, but are not involved in the budget process.
- Financial accounting reports pertain to subunits of the business and are very detailed.
- Managerial accounting reports must follow generally accepted accounting principles and are audited by chartered professional accountants.
- Managers’ activities and responsibilities can be classified into three broad functions: planning, directing, and controlling.
- As a result of the Sarbanes-Oxley Act of 2002, top managers must certify that the company maintains an adequate system of internal control.
- Management accountants follow principles of ethical behaviour outlined in the CPA Code of Professional Conduct.

D1.2 (LO 4) Match the descriptions that follow with the corresponding terms.

Descriptions:

1. _____ Inventory system in which goods are manufactured or purchased just as they are needed for use
2. _____ A method of allocating overhead based on each product's use of activities in making the product
3. _____ Systems that are especially important to firms adopting just-in-time inventory methods
4. _____ One part of the value chain for a manufacturing company
5. _____ The North American economy is trending toward this
6. _____ A performance-measurement approach that uses both financial and non-financial measures, tied to company objectives, to evaluate a company's operations in an integrated fashion

Terms:

- a. Activity-based costing (ABC)
- b. Balanced scorecard
- c. Total quality management (TQM)
- d. Research and development, and product design
- e. Service industries
- f. Just-in-time (JIT) inventory

Identify trends in managerial accounting.

Exercises

E1.3 (LO 1) The following table compares various features of managerial and financial accounting:

| | <u>Financial Accounting</u> | <u>Managerial Accounting</u> |
|----------------------|-----------------------------|------------------------------|
| Primary users | | |
| Type of reports | | |
| Frequency of reports | | |
| Purpose of reports | | |
| Content of reports | | |
| Verification process | | |

Explain the distinguishing features of managerial accounting.

Instructions

Complete the table above.

E1.4 (LO 1) Financial accounting information and managerial accounting information have a number of distinguishing characteristics, which are listed below.

- _____ 1. General-purpose reports
- _____ 2. Reports are used internally
- _____ 3. Prepared in accordance with generally accepted accounting principles
- _____ 4. Special-purpose reports
- _____ 5. Limited to historical cost data
- _____ 6. Reporting standard in relevance to the decision to be made
- _____ 7. Financial statements
- _____ 8. Reports generally pertain to the business as a whole
- _____ 9. Reports generally pertain to subunits
- _____ 10. Reports issued quarterly or annually

Explain the distinguishing features of managerial accounting.

Instructions

For each of the characteristics listed above, indicate which characteristics are more closely related to financial accounting by placing the letter "F" in the space to the left of the item and indicate those characteristics that are more closely associated with managerial accounting by placing the letter "M" to the left of the item.

Explain the distinguishing features of managerial accounting.

E1.5 (LO 1) Chris Koplinski has prepared the following list of statements about managerial accounting and financial accounting.

1. Financial accounting focuses on providing information to internal users.
2. Managerial accounting analyzes how changes in the number of units produced impact production costs and profitability.
3. Preparation of budgets is part of financial accounting.
4. Managerial accounting applies only to merchandising and manufacturing companies.
5. Both managerial accounting and financial accounting deal with many of the same economic events.
6. Managerial accounting reports are prepared only quarterly and annually.
7. Financial accounting reports are general-purpose reports.
8. Managerial accounting reports pertain to subunits of the business.
9. Managerial accounting reports must comply with generally accepted accounting principles.
10. Although managerial accountants are expected to behave ethically, there is no code of ethical standards for managerial accountants.

Instructions

Identify each statement as true or false. If false, indicate how to correct the statement.

Identify the three broad functions of management.

E1.6 (LO 2) Listed below are the three functions of the management of an organization.

1. Planning
2. Directing
3. Controlling

Instructions

Identify which of the following statements best describes each of the above functions:

- a. _____ requires management to look ahead and to establish objectives. A key objective of management is to add value to the business.
- b. _____ involves coordinating a company's diverse activities and human resources to produce a smoothly running operation. This function relates to the implementation of planned objectives.
- c. _____ is the process of keeping the activities on track. Management must determine whether goals are being met and what changes are necessary when there are deviations.

Identify the role of management accountants in an organizational structure.

E1.7 (LO 2) The following is a list of terms related to a company's organizational structure:

1. _____ Board of directors
2. _____ Chief financial officer
3. _____ Treasurer
4. _____ Controller
5. _____ Line position
6. _____ Chief executive officer
7. _____ Staff position

Instructions

Match each of the above terms with the appropriate statement below.

- a. Employee who has overall responsibility for managing the business
- b. Employees who are directly involved in the company's primary revenue-generating activities
- c. Employee with overall responsibility for all accounting and finance issues
- d. Group of people elected by the shareholders that selects and oversees company officers and formulates operating policies
- e. Employees who provide support services to those employees who are directly involved in the company's primary revenue-generating activities
- f. Employee who maintains accounting records and the system of internal controls, and prepares financial statements, tax returns, and internal reports
- g. Employee who has custody of the company's funds and maintains the company's cash position

E1.8 (LO 3) What rules were enacted under the Sarbanes-Oxley Act to address unethical accounting practices?

Explain the rules under SOX.

E1.9 (LO 4) The following is a list of terms related to managerial accounting practices.

Identify various managerial accounting practices.

1. Activity-based costing
2. Just-in-time inventory
3. Balanced scorecard
4. Value chain

Instructions

Match each of the terms with the statement below that best describes the term.

- a. _____ A performance-measurement technique that attempts to consider and evaluate all aspects of performance using financial and non-financial measures in an integrated fashion
- b. _____ The group of activities associated with providing a product or service
- c. _____ An approach used to reduce the cost associated with handling and holding inventory by reducing the amount of inventory on hand
- d. _____ A method used to allocate overhead to products based on each product’s use of the activities that cause the incurrence of the overhead cost

Ethics cases ask you to reflect on typical ethical dilemmas, analyze the stakeholders and the issues involved, and decide on an appropriate course of action.

Cases

C1.10 Love All is a large company manufacturing hockey equipment, located in Toronto. The company manufactures hockey sticks, pucks, clothing, and skates, all bearing the company’s distinctive logo, a large green heart on a white flocked hockey puck. The company’s sales have been increasing over the past 10 years.

The hockey sticks division has recently implemented several advanced manufacturing techniques. Robot arms hold the hockey sticks in place while the glue dries, and machine vision systems check for defects. The engineering and design team uses computerized drafting and testing of new products. The following managers work in the hockey sticks division:

- Hayley Geagea, sales manager (supervises all sales representatives)
- Luc Lemieux, technical specialist (supervises computer programmers)
- Gary Richardson, cost accounting manager (supervises cost accountants)
- Manny Cordoza, production supervisor (supervises all manufacturing employees)
- Patrick Dumoulin, engineer (supervises all new-product design teams)

Instructions

- a. What are the primary information needs of each manager?
- b. Which, if any, financial accounting report(s) is each likely to use?

- c. Name one special-purpose management accounting report that could be designed for each manager. Include the name of the report, the information it would contain, and how frequently it should be issued.

C1.11 Ethics Million Dollar Mills is a manufacturing firm. The company carefully prepares all financial statements in accordance with Accounting Standards for Private Enterprises (ASPE) and gives a copy of all financial statements to each department. In addition, the company keeps records for quality control, safety, and environmental pollution. It then prepares “scorecards” for each department indicating their performance. Recently, the financial impact of the second set of information was added, and the information has been used in the evaluation of employees for merit pay and promotions.

At the most recent employee meeting, Thanh Nguyen, marketing manager, expressed his discomfort with the system. He said there was no guarantee that the second set of information was fair since there were no generally accepted principles for this kind of information. He also said that it was kind of like keeping two sets of books—one following all legal requirements, and the other one actually used by the company.

Instructions

- a. Is it ethical to evaluate managers in the way described? Explain briefly.
- b. Name at least two safeguards the company could build into its system to ensure the ethical treatment of employees.

“All About You” Activity

C1.12 The primary purpose of managerial accounting is to provide information useful for management decisions. Many of the managerial accounting techniques that you learn in this course will be

useful for decisions you make in your everyday life. After you graduate, one of the next important decisions you’ll have to make is where to work.

Instructions

Suppose that you go for job interviews and are given offers of employment by two competing firms for the same entry-level position. They are offering the same salary and benefits. Their offices are in different cities. They are both public companies, so their annual reports containing financial and other information are available to you for free on their websites. For each of the following factors, provide an example

of the numerical information you would need to help decide which firm to work for.

- Which company is currently more profitable
- Which city is more economical to live in
- Which company has better long-term prospects
- Which company might have more opportunities for advancement

Decision-Making at Current Designs

Excel Each chapter contains an exercise based on *Current Designs*, the company that was featured at the beginning of this chapter. We are pleased to present hypothetical managerial accounting situations that are based on the operations of a real company. However, to protect the proprietary nature of this information, the amounts in these exercises are realistic but not the actual data that would be found in *Current Designs*' accounting records. Students can also work through this exercise following an Excel tutorial available in WileyPLUS. Each chapter's tutorial focuses on a different Excel function or feature.

DM1.1 Mike Cichanowski founded Wenonah Canoe and later purchased Current Designs, a Canadian company that designs and manufactures kayaks. The kayak manufacturing facility is located just a few minutes from the canoe company's headquarters in Winona, Minnesota.

Current Designs makes kayaks using two different processes. The rotational moulding process uses high temperature to melt polyethylene powder in a closed rotating metal mould to produce a complete kayak hull and deck in a single piece. These kayaks are less labour-intensive and less expensive for the company to produce and sell.

Its other kayaks use the vacuum-bagged composite lamination process (which we will refer to as the composite process). Layers of

fibreglass or Kevlar® are carefully placed by hand in a mould and are bonded with resin. Then, a high-pressure vacuum is used to eliminate any excess resin that would otherwise add weight and reduce the strength of the finished kayak. These kayaks require a great deal of skilled labour because each boat is individually finished. The exquisite finish of the vacuum-bagged composite kayaks gave rise to Current Designs' tagline, "A work of art, made for life."

Current Designs has the following managers:

Mike Cichanowski, CEO
 Diane Buswell, Contoller
 Deb Welch, Purchasing Manager
 Bill Johnson, Sales Manager
 Dave Thill, Kayak Plant Manager
 Rick Thrune, Production Manager for Composite Kayaks

Instructions

- What are the primary information needs of each manager?
- Name one special-purpose management accounting report that could be designed for each manager. Include the name of the report, the information it would contain, and how frequently it should be issued.

Waterways Continuing Problem

WCP.1 Waterways Corporation is a private company providing irrigation and drainage products and services for residential, commercial, and public sector projects, including farms, parks, and sports fields. It has a plant located in a small city north of Toronto that manufactures the products it markets to retail outlets across Canada. It also maintains a division that provides installation and warranty servicing in the Greater Toronto Area.

The mission of Waterways is to manufacture quality parts that can be used for effective water management, be it drainage or irrigation. The company hopes to satisfy its customers with its products, provide rapid and responsible service, and serve the community and the employees who represent it in each community.

The company has been growing rapidly, so management is considering new ideas to help the company continue its growth and maintain the high quality of its products. Waterways was founded by Phil Clark Sr., who has since retired. He continues to own a majority of the company shares. Now his son, Phil Clark Jr., is the company president and chief executive officer (CEO). Working with Phil Sr. from the company's inception is his brother, Ben, whose sprinkler designs and ideas about the installation of proper systems have been a major reason for the company's success. Ben is the vice-president of operations and oversees all aspects of design and production in the company.

The factory itself is managed by Ryan Smith, who reports to Ben. First-line supervisors reporting to Ryan are responsible for the

factory employees. The factory makes all of the parts for the irrigation and drainage systems. The purchasing department is managed by Jo Chan, who also reports to Ryan.

The installation and training division is overseen by service vice-president Lee Williams, who supervises the managers of the six local installation operations. Each of these local managers hires their own local service people. These service employees are trained at headquarters under Lee's direction because of the uniqueness of the company's products.

Kim Martin acts as vice-president of human resources. Kim manages a small team that is responsible for human resource development, salary administration, and group benefits. Each department does its own hiring. Madison Tremblay is the sales and marketing vice-president, with a sales force of 10 experienced professionals.

The company's accounting and finance division is headed by Jordan Leigh, CPA, as vice-president of finance and chief financial officer (CFO). There is a small staff of professionally designated accountants, including a controller and a treasurer, and clerical staff members who maintain the financial records.

Instructions

Based on the information provided, construct an organizational chart for Waterways Corporation.

Answers to Insight Questions

Does a Company Need a CEO? **Q:** What are some of the advantages cited by companies that choose a structure that lacks a CEO? **A:** Companies that replace the CEO with a management committee do so because they believe that it enhances decision-making, improves collaboration, and increases management continuity by avoiding the disruptions associated with replacing a CEO.

Ethics Breach at Valeant Pharmaceuticals **Q:** What can companies do to create disincentives for managers to act unethically? **A:** Valeant provides an example of unethical practices by managers. The Business Insight doesn't provide any suggestions for disincentives to unethical behaviour; however, companies can turn to SOX (U.S.) for guidance for good internal control systems. In Canada, the accounting professional bodies each have professional codes of ethical conduct. The codes cover competence, confidentiality, integrity, and credibility. Incentives need to be designed in a way that discourages unethical actions. In Valeant's case, its performance-based environment encouraged short-term results and management was inclined to report overstated profits. This historical account provides a lesson that incentives should be tied to more than just profits. Unethical activities related to increasing incentive compensation are not necessarily engaged in by employees with criminal intentions but rather by employees who are paid based on goals that may be unrealistic. Although there is no excuse for behaving unethically, compensation and performance programs should be designed to discourage unethical practices. For instance, organizations should offer incentives based on more than just financial goals.

“Lean” Luxury **Q:** What are some of the steps that this company has taken to ensure that production meets demand? **A:** Louis Vuitton has changed to a lean process that uses teams to accomplish tasks based on the time a task takes. Production employees are multi-skilled so they can easily switch tasks and work on different products. Sales information is now centralized to allow for production adjustments.

Using Data in Its Own World **Q:** What is behavioural analytics, and how does Disney use it to minimize lines at its theme parks? **A:** Behavioural analytics is the use of data to predict and influence customer behaviour. To minimize wait lines, and thus improve its customers' experiences, Disney uses data collected from its visitors' “MagicBands” to determine what incentives it should provide to encourage customers to shift their itineraries to underutilized activities.

