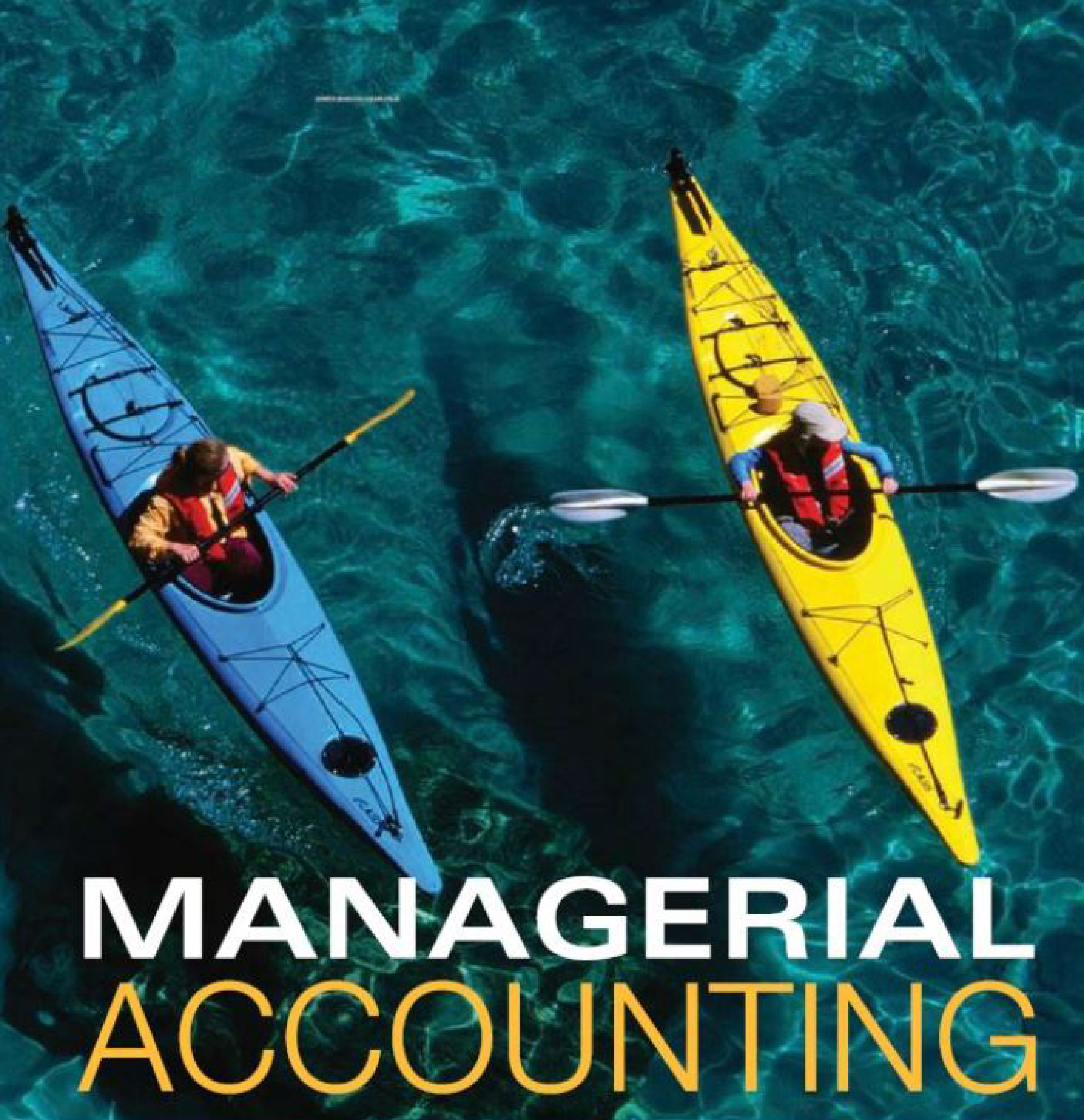

MANAGERIAL ACCOUNTING

TOOLS FOR BUSINESS DECISION-MAKING

FOURTH CANADIAN EDITION

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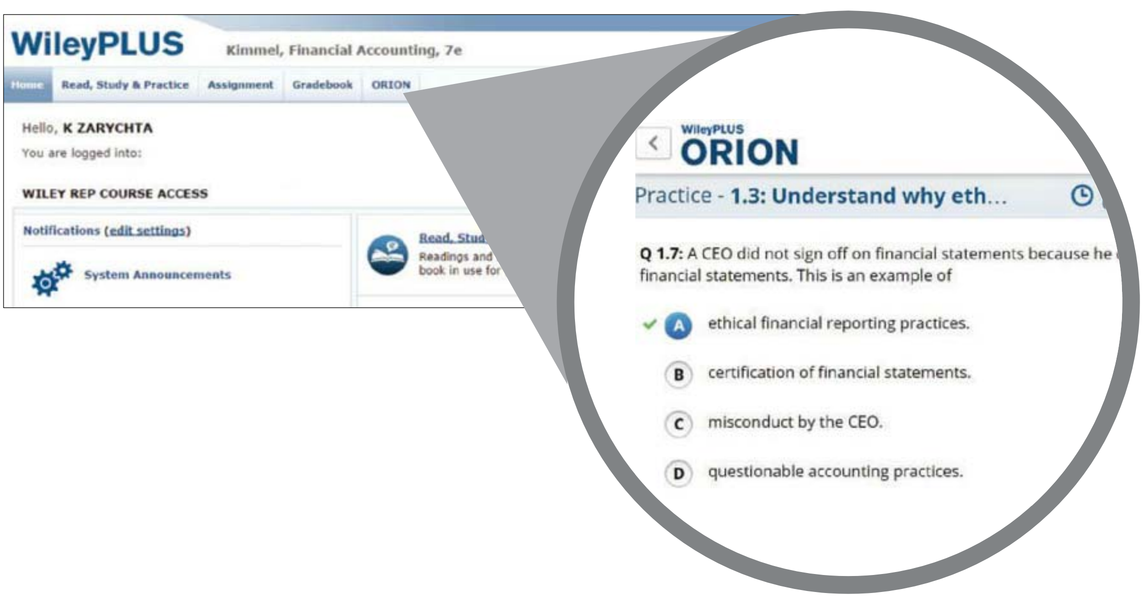

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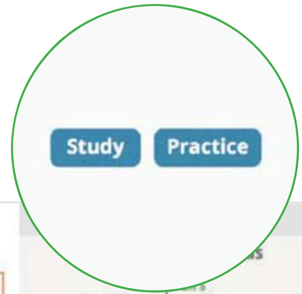

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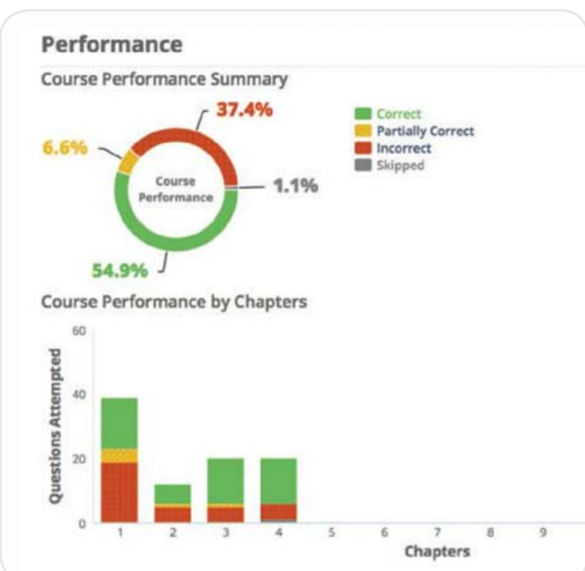

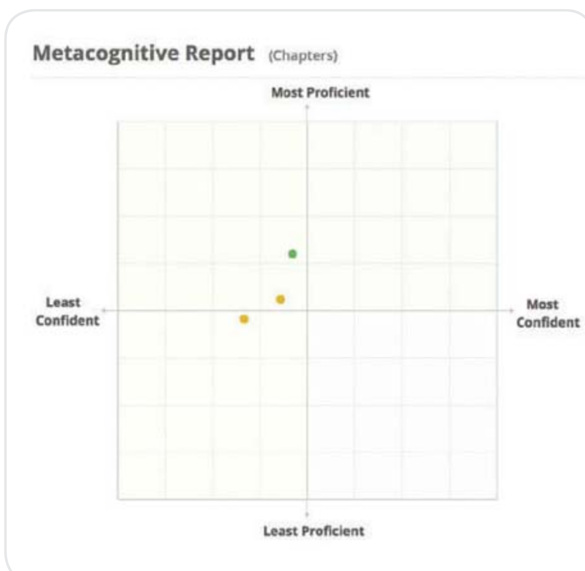

MANAGERIAL ACCOUNTING

TOOLS FOR BUSINESS DECISION-MAKING

Fourth Canadian Edition

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U.S. Edition

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Donald E. Kieso, Ph.D., CPA, received his bachelor's degree from Aurora University and his doctorate in accounting from the University of Illinois. He has served as chairman of the Department of Accountancy and is currently the KPMG Emeritus Professor of Accounting at Northern Illinois University. He has public accounting experience with Price Waterhouse & Co. and Arthur Andersen & Co. and research experience with the Research Division of the American Institute of Certified Public Accountants. He is a recipient of NIU's Teaching Excellence Award and four Golden Apple Teaching Awards. Professor Kieso is a member of the American Accounting Association, the American Institute of Certified Public Accountants, and the Illinois CPA Society. He has served as a member of the Board of Directors of the Illinois CPA Society, the AACSB's Accounting Accreditation Committees, the State of Illinois Comptroller's Commission, as Secretary-Treasurer of the Federation of Schools of Accountancy, and as Secretary-Treasurer of the American Accounting Association. Professor Kieso is currently serving on the Board of Trustees and Executive Committee of Aurora University, and is a member of various other boards. From 1989 to 1993, he served as a charter member of the national Accounting Education Change Commission. He is the recipient of the Outstanding Accounting Educator Award from the Illinois CPA Society, the FSA's Joseph A. Silvoso Award of Merit, the NIU Foundation's Humanitarian Award for Service to Higher Education, the Distinguished Service Award from the Illinois CPA Society, and in 2003 an honorary doctorate from Aurora University.

Canadian Edition

Ibrahim M. Aly, Ph.D., is a professor in the Department of Accountancy at the John Molson School of Business, Concordia University, where he has been on faculty since 1989. Professor Aly holds a Ph.D. and MBA (with distinction) in accounting from the University of North Texas, as well as an M.S. and B.Comm. in accounting with distinction from Cairo University, Egypt. Professor Aly has taught at a variety of universities in Egypt, Saudi Arabia, the United States, and Canada and he has developed and coordinated many accounting courses at both the undergraduate and graduate levels. He participated in the Symposium on Models of Accounting Education, sponsored by the Accounting Education Change Commission of the American Accounting Association. Throughout his many years of teaching, Professor Aly's method of instruction has consistently been met with high praise from his students. He won the College of Business Teaching Innovation Award for two consecutive years. Professor Aly has published in reputable refereed journals in the fields of managerial accounting, financial accounting, behavioural accounting, and accounting education. In addition, he has previously published a book on management accounting entitled *Readings in Management Accounting: New Rules for New Games in Manufacturing and Service Organizations*. He has presented his work at over 35 scholarly national and international conferences, and been chosen as the Department of Accountancy Research Professor. He has organized the department's luncheon presentations series and the Ph.D. visiting speaker series, both of which provide an indispensable academic service to graduate students and professors. Professor Aly has given numerous workshops and seminars on financial and managerial accounting.

ACKNOWLEDGEMENTS

I would like to express my appreciation to the many people who have contributed to the development of this textbook. I gratefully acknowledge the valuable suggestions that I received from instructors of managerial accounting, including users of the previous editions of the text. Their contribution significantly improved the content and pedagogy of the final product.

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I would like to extend my sincere appreciation to the U.S. authors of this textbook for their willingness to share their work with me. They have advanced the discussion of management accounting from that established in traditional textbooks, which focused on "number-crunchers," to a more modern view of accountants as critical participants in the business decision-making process. The features of this book will help accounting students discover a reasonable balance between learning managerial accounting techniques and gaining essential skills and how to apply them when they enter the workforce.

My appreciation is also extended to CPA Canada for permission to use or adapt problems from past examinations.

I express my gratitude to the many fine people at John Wiley & Sons Canada who have professionally guided this text through the development and publication process. In particular, I acknowledge the publisher, Veronica Visentin, for her interest in and support of this fourth Canadian edition of the textbook. In addition, I extend my appreciation to Wiley Canada's editorial staff, who were terrific in guiding me through this challenging process, especially Zoë Craig, Acquisitions Editor; Deanna Durnford, Supplements Coordinator; Daleara Hirjikaka, Developmental Editor; Anita Osborne, Marketing Manager; Karen Staudinger, Editorial Manager; and Carolyn Wells, Vice-President, Digital & Business Solutions. I also extend my appreciation to all other members of the publishing team at John Wiley & Sons Canada who worked together to complete this project. The editorial expertise of Laurel Hyatt, Zofia Laubitz, Denise Showers, and Belle Wong is also very much appreciated.

Finally, special thanks and gratitude are extended to my family for their support and encouragement.

Suggestions and comments from users—instructors and students alike—will be appreciated.

Ibrahim Aly
Montreal, Quebec

What's New?

WileyPLUS with ORION

Available in WileyPLUS with Orion, an adaptive study and practice tool that helps students build proficiency in course topics. Up to 400 new, multiple-choice questions were written for each chapter.

Updated Content and Design

We scrutinized all chapter material to find new ways to engage students and help them learn accounting concepts. Up-to-date coverage and new discussions of important managerial accounting topics include Chapter 1, **sustainable business**, Chapter 7 **retain or replace equipment**, and Chapter 9, **total cost pricing**. Homework problems were updated in all chapters.

New learning objective modules join practice and textbook concepts. Most learning objectives now close with a DO IT! exercise and solution. The new learning objective modules help students practise their understanding before they move on to different topics in other learning objectives. The new learning objective approach motivates students and helps them make the best use of their time.

WileyPLUS Videos

Over 100 videos are available in WileyPLUS. The videos walk students through relevant homework problems and solutions, review important concepts, and explore topics in a real-world context.

Student Practice and Solutions

New practice opportunities with solutions are integrated throughout the textbook and WileyPLUS course. Each textbook chapter provides students with learning objective summaries, multiple-choice questions with answers, and both Comprehensive Do It! and Using the Decision Toolkit problems with solutions. Also, learning objectives in the textbook are followed by a Do It! exercise with an accompanying solution.

In WileyPLUS, selected brief exercises, Do It! exercises, and exercises are available for practice with each chapter. Where possible, questions are algorithmic, providing students with multiple opportunities for advanced practice.

Real World Context: Feature Stories and Comprehensive Problems

New feature stories apply chapter topics to new real-world company examples. Beginning in Chapter 1, we introduce Current Designs, a US-based kayak-making company with Canadian origins. We then follow up with a new decision-making problem in every chapter based on this real-world company. Each problem presents realistic managerial accounting situations that students must analyze to determine the best course of action. This problem is accompanied by a continuing Excel tutorial in each chapter. Throughout the chapters, the real-world insight boxes show how people in actual companies make decisions using accounting information. Answers to the critical thinking questions that follow each box are provided in the instructor's manual.

Comprehensive Homework Material with Excel

Each chapter concludes with revised Self-Test Questions, Brief Exercises, Do It! Review, Exercises, and Problems. Exercises and problems marked with a pencil icon help students practice business writing skills. Items marked with a handshake icon focus on accounting situations faced by service companies. An icon identifies Exercises and Problems that can be solved using Excel templates on the book's companion website and in WileyPLUS. The Waterways Continuing Problem uses the business activities of a fictional company, to help students apply managerial accounting topics to a realistic entrepreneurial situation. A continuing Excel tutorial is available at the end of each chapter with the Decision-Making at Current Designs problem.

More information about the fourth edition is available on the book's website at **www.wiley.com/go/managerialcanada.**

Practice Made Simple

The Team for Success is focused on helping students get the most out of their accounting course by **making practice simple**. Both in the printed text and the online environment of *WileyPLUS*, new opportunities for self-guided practice allow students to check their knowledge of accounting concepts, skills, and problem-solving techniques as they receive individual feedback at the question, learning objective, and course level.

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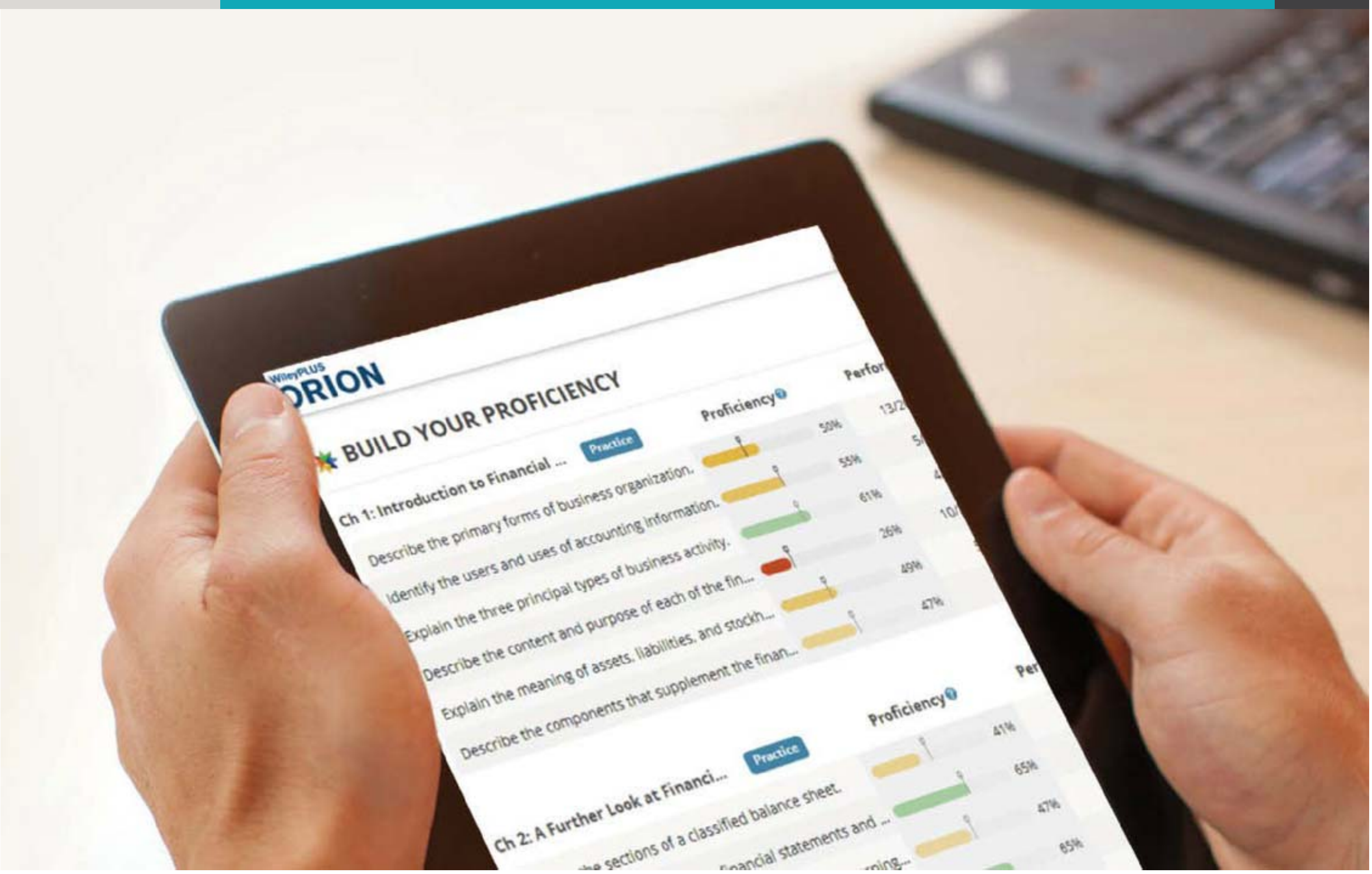

Streamlined Learning Objectives

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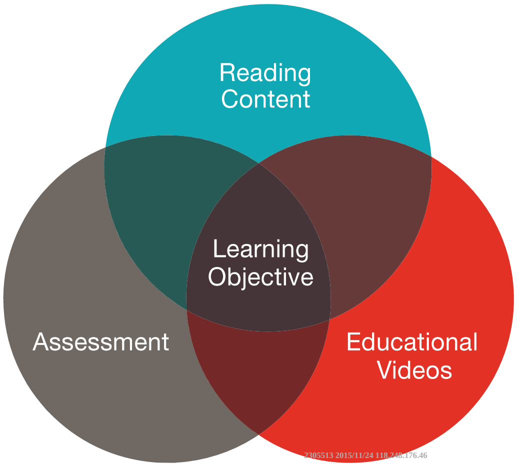
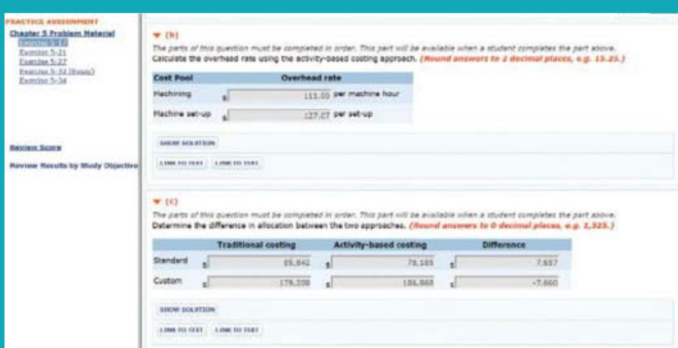


Review and Practice

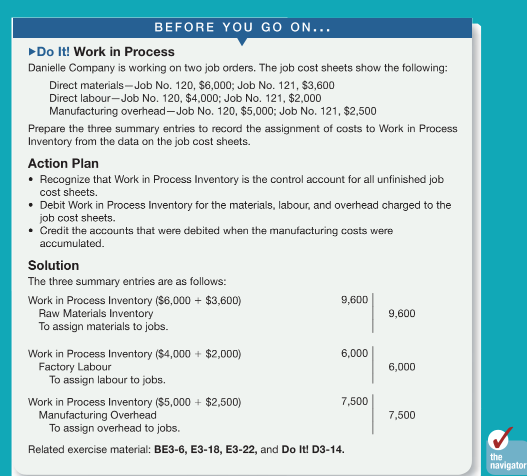
Students have more opportunities for self-guided practice in the text and in WileyPLUS.



The text includes **worked out solutions** to select questions, exercises, and problems, plus:

- Learning Objectives Review
- Glossary Review
- Practice Multiple-Choice Questions
- Do It! Exercises and Solutions
- Comprehensive Do It! Problem and Solutions
- Using the Decision Toolkit Problems and Solutions

WileyPLUS includes updated practice assignments featuring several Do ITs, Brief Exercises, and Exercises, giving students the opportunity to check their work or see the answer and solution after their final attempt.



BEFORE YOU GO ON...

▸Do It! Work in Process

Danielle Company is working on two job orders. The job cost sheets show the following:

Direct materials—Job No. 120, $6,000; Job No. 121, $3,600
Direct labour—Job No. 120, $4,000; Job No. 121, $2,000
Manufacturing overhead—Job No. 120, $5,000; Job No. 121, $2,500

Prepare the three summary entries to record the assignment of costs to Work in Process Inventory from the data on the job cost sheets.

Action Plan

- Recognize that Work in Process Inventory is the control account for all unfinished job cost sheets.
- Debit Work in Process Inventory for the materials, labour, and overhead charged to the job cost sheets.
- Credit the accounts that were debited when the manufacturing costs were accumulated.

Solution

The three summary entries are as follows:

Work in Process Inventory ($6,000 + $3,600)	9,600	
Raw Materials Inventory		9,600
To assign materials to jobs.		
Work in Process Inventory ($4,000 + $2,000)	6,000	
Factory Labour		6,000
To assign labour to jobs.		
Work in Process Inventory ($5,000 + $2,500)	7,500	
Manufacturing Overhead		7,500
To assign overhead to jobs.		

Related exercise material: **BE3-6, E3-18, E3-22,** and **Do It! D3-14.**

BRIEF CONTENTS

CONTENTS

CHAPTER 1

Managerial Accounting

The Navigator is a learning system that prompts you to use the learning aids in the chapter and helps you set priorities as you study.

The Navigator
Chapter 1

- Scan *Study Objectives*
- Read *Feature Story*
- Read *Chapter Preview*
- Read text and answer *Before You Go On* p. 5, p. 8, p. 12, p. 18
- Review *Summary of Study Objectives*
- Answer *Self-Study Questions*
- Complete assignments

study objectives

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

the navigator

After studying this chapter, you should be able to do the following:

1. Explain the distinguishing features of managerial accounting.
2. Identify the three broad functions of management and the role of management accountants in an organizational structure.
3. Explain the importance of business ethics.
4. Identify changes and trends in managerial accounting.

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 the chapter.

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 in 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.

Today, Wenonah Canoe's 90 employees produce and sell about 12,000 canoes and kayaks per year through 500 retailers 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. Both companies started off making great boats, but it took a little longer to figure out how to sell them.

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: 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.

Preview of Chapter 1

The **Preview** describes the purpose of the chapter and outlines the major topics and subtopics in it.

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. In today's rapidly changing global environment, managers must 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 is organized as follows:

MANAGERIAL ACCOUNTING

Managerial Accounting Basics
- Introduction
- Comparing managerial and financial accounting

Management Functions and Organizational Structures
- Management functions
- Organizational structure

Business Ethics
- Creating proper incentives
- Code of ethical standards
- Corporate social responsibility

Managerial Accounting Today
- Service industry trends
- Managerial accounting practices
- Accounting organizations and professional accounting careers in Canada

Managerial Accounting Basics

INTRODUCTION

STUDY OBJECTIVE 1
Explain the distinguishing features of managerial accounting.

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

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. You don't believe us? Let's look at some examples of some 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 and 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. And 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. 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. Finally, 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 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 is, 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 you can 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. Recently, that role has changed significantly. First, as the manufacturing environment has become more automated, methods used to determine the amount and type of cost in a product have changed. Second, today's managerial accountants are now 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.

BEFORE YOU GO ON...

▶Do It! 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.

Action Plan

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

Solution

1. False. Managerial accountants determine product costs. In addition, managerial accountants are now 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.

Related exercise material: **E1-3, E1-7,** and **E1-8,** and **Do It! D1-1**.

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.

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Management Functions and Organizational Structures

MANAGEMENT FUNCTIONS

STUDY OBJECTIVE 2

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

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 includes implementing planned objectives and providing necessary incentives to motivate employees. For example, manufacturers such as General Motors of Canada Ltd., Magna International Inc., and Dare Foods Ltd. 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 at companies like Nortel Networks and Hollinger Inc. attest to the fact that companies must have adequate controls to ensure that the company develops and distributes accurate information.

Business Insight examples illustrate interesting situations in real companies and show how decisions are made based on accounting 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.

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 "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 on 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," *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 in order to ensure that production meets demand?

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.

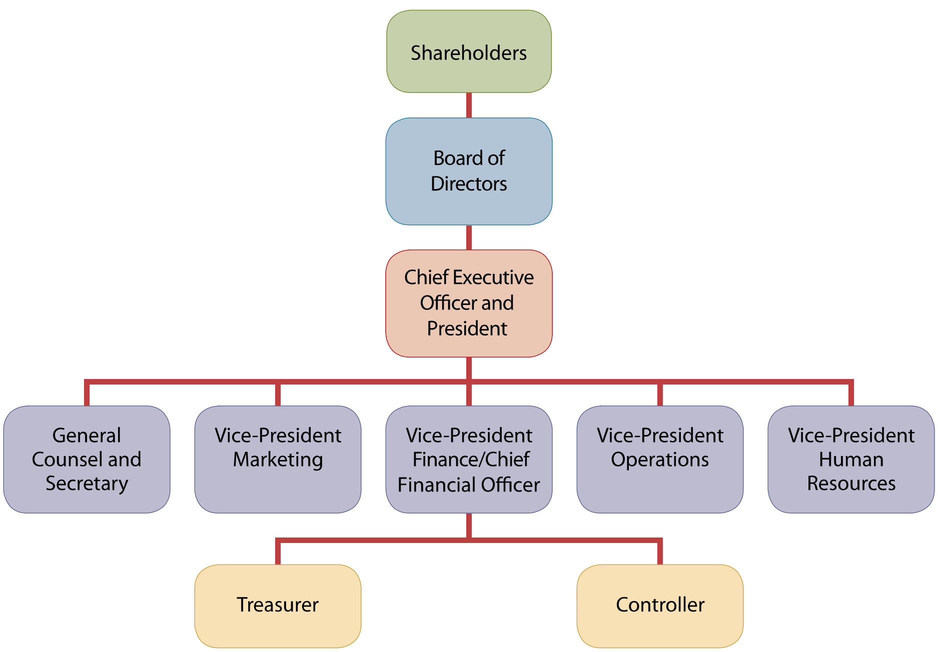

Illustration 1-2
Corporation organization chart

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 also 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, 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 serve 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 reviewing the reliability and integrity of financial information provided by the controller and treasurer. Audit staff members also ensure that internal control systems are functioning properly to safeguard corporate assets. In addition, they investigate compliance with policies and regulations and, 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 plant managers, and each one would report to the vice-president of operations. Each plant would also have department managers, such as fabricating, painting, and shipping managers, each reporting to the plant manager.

BEFORE YOU GO ON...

▶Do It! Managerial Accounting Concepts

Indicate whether the following statement is true or false.

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

Action Plan

- Analyze which users require which different types of information.

Solution

1. False. Managers' activities 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: **E1-5** and **E1-6,** and **Do It! D1-1**.

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Business Ethics

STUDY 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.

Despite these efforts, recent business scandals have resulted in massive investment losses and large employee layoffs. A recent survey of fraud by international accounting firm KPMG reported a 13% increase in instances of corporate fraud compared with five years earlier. It noted that while employee fraud (such things as expense account abuse, payroll fraud, and theft of assets) represented 60% of all instances of fraud, financial reporting fraud (the intentional misstatement of financial reports) was the most costly to companies. That should not be surprising given the long list of companies, such as Nortel, Enron, Global Crossing, and WorldCom, that have engaged in or been accused of engaging in massive financial frauds, which have led to huge financial losses and thousands of lost jobs.

CREATING PROPER INCENTIVES

Companies like BCE, CGI, Motorola, IBM, and Nike use complex systems to control and evaluate the actions of managers. They dedicate substantial resources to monitor and effectively evaluate the actions of employees. Unfortunately, these systems and controls sometimes unwittingly create incentives for managers to take unethical actions. For example, companies prepare budgets to provide direction. Because the budget is also used as an evaluation tool, some managers try to play a "game" 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. On the other hand, 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, keep their jobs.

BUSINESS INSIGHT *Ethics Breach at Nortel*

Canadian-based Nortel Networks Corp. was once the largest supplier of telecommunications equipment in the world. In 2004, Nortel fired CEO Frank Dunn and two other senior executives in connection with an internal probe of the company's financial practices. Later that year, Nortel fired seven more financial managers as it continued to sort out the accounting scandal that led to the dismissal of its president. The financial shenanigans drew the attention of federal prosecutors from the U.S. Attorney's office in Dallas, and from the RCMP. Dunn and two other former senior executives were charged with fraud, but found not guilty in 2013 as the judge said the accounting decisions that led to the charges were either not fraudulent or were immaterial for such a large company as Nortel. Securities regulators in both countries were also looking into the accounting irregularities that caused Nortel to restate its results for several years. Among other things, the company said it actually lost money in the first half of 2003, whereas it had previously reported a net profit of $40 million. In 2006, Nortel reached an agreement in principle for proposed global settlement of class action litigation launched by shareholders who suffered huge losses as Nortel's stock price plummeted. The company agreed to pay U.S. $575 million cash and issue common shares representing 14.5% of current equity. In 2009, Nortel declared bankruptcy and liquidated, auctioning off its patents for $4.5 billion.

Sources: Janet McFarland and Richard Blackwell, "Three Former Nortel Executives Found Not Guilty of Fraud," *The Globe and Mail*, January 14, 2013; Charles Arthur, "Nortel Patents Sold for $4.5bn," *The Guardian*, July 1, 2011; James Bagnall, "The Beginning of the End: How an Accounting Scandal Permanently Weakened Nortel," *The Ottawa Citizen*, November 2, 2009; "Nortel Cheques in the Mail," *The Gazette*, May 16, 2008, B-1; Jeffry Bartash, "U.S. Investigators Target Nortel," www.cbs.marketwatch.com, May 14, 2004.

What can companies do to create disincentives for managers to act unethically?

Unethical actions similar to those committed at Nortel have also taken place in the United States. For example, in recent years, airline manufacturer Boeing has been plagued by a series of scandals, including charges of overbilling, corporate espionage, and illegal conflicts of interest. Some long-time employees of Boeing blame the decline in ethics on a change in the corporate culture that took place after Boeing merged with McDonnell Douglas. They suggest that evaluation systems that were implemented after the merger to monitor results and evaluate employee performance made employees believe they needed to succeed no matter what.

Although manufacturing companies need to establish production goals for their processes, if controls are not effective and realistic, problems develop. To illustrate, Schering-Plough, a pharmaceutical manufacturer, found that employees were so concerned with meeting production standards that they failed to monitor the quality of the product, and as a result the dosages were often wrong.

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. One result of SOX was the clarification of top management's responsibility for the company's financial statements. CEOs and CFOs must now certify that financial statements give a fair presentation of the company's operating results and its financial condition. In addition, 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.

Another result of Sarbanes-Oxley is that 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.

Finally, to increase the likelihood of compliance with the rules that are part of the new legislation, the law substantially increases the penalties for misconduct.

In Canada, 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. The new 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 in a release announcing the proposed rules."[1]

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 U.S. Institute of Management Accountants (IMA) has developed a code of ethical standards entitled IMA Standards of Ethical Conduct for Practitioners of Management Accounting and Financial Management. The code states that management accountants should not commit acts in violation of these standards, nor should they condone such acts by others within their organizations. In Canada, each province has its own code of ethics and rules and guidelines of professional conduct.

In Canada, the professional accounting organization plays an important role in promoting high standards of ethics in the accounting profession. These standards of ethics can be used as guidelines in dealing with the public and the association's members. The IMA's **Statement of Ethical Professional Practice** provides the following codes of conduct regarding **competence, confidentiality, integrity, and credibility**:

Competence

Management accountants have a responsibility to

- maintain professional competence.
- perform professional duties in accordance with relevant laws, regulations, and technical standards.
- prepare complete and clear reports and recommendations.

[1]Gilles des Roberts, "On the hot seat," *CA Magazine* (December 2003).

- communicate professional limitations that would preclude responsible judgement or successful performance of an activity.

Confidentiality

Management accountants have a responsibility to

- refrain from disclosing confidential information.
- inform subordinates as to how to handle confidential information.
- refrain from using confidential information for unethical or illegal advantage.

Integrity

Management accountants have a responsibility to

- avoid conflicts of interest.
- refrain from activity that would prejudice their ability to carry out their duties ethically.
- refrain from engaging in or supporting any activity that would discredit the accounting profession.

Credibility

Management accountants have a responsibility to

- communicate information fairly and objectively.
- disclose fully all relevant information that could reasonably be expected to influence a user's understanding of the reports, comments, and recommendations presented.

CORPORATE SOCIAL RESPONSIBILITY

Another aspect of business ethics is the growing trend toward **corporate social responsibility**. Many companies have begun to evaluate not just corporate profitability but also corporate social responsibility. In addition to profitability, 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 General Electric, adidas, Toyota, Coca-Cola, or Starbucks. 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.

Sustainable business practices present numerous issues for management and managerial accountants. First, companies must decide what items need to be measured, generally those that are of utmost importance to its stakeholders. For example, a particular company might be most concerned with minimizing water pollution or maximizing employee safety. Then, for each item identified, the company must determine measurable attributes that provide relevant information about the company's performance with regard to that item, such as amount of waste released into public waterways or number of accidents per 1,000 hours worked. Finally, the company needs to consider the materiality of the item, the cost of measuring these attributes, and the reliability of the measurements. If the company uses this information to make decisions, then accuracy is critical. Of particular concern is whether the measurements can be verified by an outside third party. Unlike financial reporting, the reporting of sustainable business practices currently has no agreed-upon standard-setter. A number of organizations have, however, published sustainability reporting guidelines. Illustration 1-3 provides a list of major categories in guidelines from the Global Reporting Initiative and from the International Organization for Standardization (ISO), and a sample of topics or "aspects" that companies might consider within each category.

			Social			
	Economic	**Environmental**	**Labour Practices and Decent Work**	**Human Rights**	**Society**	**Product Responsibility**
Global Reporting Initiative aspects	Economic performance	Energy	Occupational health and safety	Child labour	Anti-corruption	Customer health and safety
	Procurement practices	Effluents and waste	Training and education	Indigenous rights	Anti-competitive behaviour	Product and service labelling
ISO 26000:2010 aspects	Social investment	Sustainable resource use	Conditions of work and social protection	Discrimination and vulnerable groups	Fair operating practices	Protecting consumers' health and safety
	Wealth and income creation	Climate change mitigation and adaptation	Human development and training in the workplace	Civil and political rights	Responsible political involvement	Fair marketing, factual and unbiased information and fair contractual practices

Sources: Global Reporting Initiative, *G4 Sustainability Reporting Guidelines*; Global Reporting Initiative and International Organization for Standardization, "IGRI G4 Guidelines and ISO 26000:2010: How to Use the GRI G4 Guidelines and ISO 26000 in Conjunction"; James Margolis, "The Global Reporting Initiative (GRI) Issues New Guidelines—What Will These Mean for Business?," ERM Group Inc., July 23, 2013.

Illustration 1-3
Categories and sample aspects in Global Reporting Initiative and ISO 26000:2010 guidelines

BEFORE YOU GO ON...

Do It! Managerial Accounting 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.

Action Plan

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

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: **E1-4** and **Do It! D1-1.**

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Managerial Accounting Today

STUDY 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 internal operations and resources of the organization, 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.

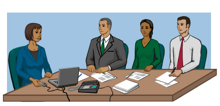
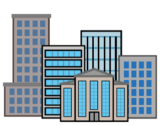
This new approach requires changes to traditional management accounting, which has been widely criticized for being too narrow, highly quantitative, and aimed at the needs of financial reporting, and for contributing little to the overall policy and direction of the organization. In this regard, as one author says, management accounting needs to be released from the factory floor so that it can meet market challenges directly.[2] 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.

SERVICE INDUSTRY TRENDS

In recent decades, the Canadian and U.S. economies in general have shifted toward an emphasis on providing services, rather than goods. Today over 50% of Canadian and U.S. workers are employed by service companies, and that percentage is expected to increase in coming years. Most of the techniques that you will learn in this course are equally applicable to service and manufacturing entities.

Managers of service companies look to managerial accounting to answer many questions. Illustration 1-4 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, he or she 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 icon next to those items in the end-of-chapter materials that relate to non-manufacturing companies.

Illustration 1-4
Service industries and companies and the managerial accounting questions they face

	Industry/Company	**Questions Faced by Service-Company Managers**
	Transportation (WestJet Airlines)	• whether to buy new or used planes • whether to service a new route
	Package delivery services (Purolator, FedEx)	• what fee structure to use • what mode of transportation to use
	Telecommunications (BCE Inc.)	• what fee structure to use • whether to service a new community • how many households it will take to break even • whether to invest in a new satellite or lay new cable
	Professional services (lawyers, accountants, dentists)	• how much to charge for particular services • how much office overhead to allocate to particular jobs • how efficient and productive individual staff members are
	Financial institutions (Bank of Montreal, TD Waterhouse)	• which services to charge for, and which to provide for free • whether to build a new branch office or to install a new ATM • whether fees should vary depending on the size of the customers' accounts
	Health care (TLC The Laser Center Inc.)	• whether to invest in new equipment • how much to charge for various services • how to measure the quality of the services provided

[2]M. Bromwich, "The Case for Strategic Management Accounting: The Role of Accounting Information for Strategy in Competitive Markets," *Accounting, Organizations and Society*, 25 (2) (1990): 221.

MANAGERIAL ACCOUNTING PRACTICES

As discussed earlier, the practice of managerial accounting has changed significantly in recent years to better meet the needs of managers. The following sections explain some well-established managerial accounting practices.

Focus on the Value Chain

The **value chain** refers to 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 1-5 shows the value chain for a manufacturer. In recent years, companies have made huge advances in analyzing all stages of the value chain in an effort to improve productivity and eliminate waste, all while continually trying to improve quality. Japanese automobile manufacturer Toyota pioneered many of these innovations.

Research and development and product design | Acquisition of raw materials | Production | Sales and marketing | Delivery | Customer relations and subsequent service

Illustration 1-5
A manufacturer's value chain

In the 1980s, many companies purchased giant machines to replace humans in the manufacturing process. These machines were designed to produce large batches of products. In recent years, these manufacturing processes have been recognized as being very wasteful. They require vast amounts of inventory storage capacity and a lot of movement of materials. Consequently, many companies have re-engineered their manufacturing processes. For example, the manufacturing company Pratt and Whitney has replaced many of its large machines with smaller, more flexible ones, and has begun reorganizing its plants for a more efficient flow of goods. With these changes, Pratt and Whitney was able to reduce the time that its turbine engine blades spend in the grinding section from 10 days to two hours. It also cut the total amount of time spent making a blade from 22 days to 7 days. The improvements that have resulted from analyses of the value chain have made companies far more responsive to customer needs, and have improved profitability.

Technological Change

Technology has played a large role in the value chain. Computerization and automation have permitted companies to be more effective in streamlining production, thus enhancing the value chain. For example, many companies now employ **enterprise resource planning (ERP) software systems**, such as those provided by SAP, which provide a comprehensive, centralized, and integrated source of information that is used to manage all major business processes, from purchasing to manufacturing to 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 walls of the company, ERP systems also collect information from and provide it to the company's major suppliers, customers, and business partners. The largest ERP provider, the German corporation SAP, has more than 36,000 customers worldwide.

Another example of technological change is **computer-integrated manufacturing (CIM)**. Using CIM, many companies can now manufacture products that are untouched by human hands. 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.