

THIRD CANADIAN EDITION

MANAGERIAL ACCOUNTING

BRAUN TIEZ BEAUBIEN



Pearson

Making Connections with *Managerial Accounting*

Welcome to *Managerial Accounting*! We hope that you all—students and faculty—enjoy your managerial accounting course, and we hope that this textbook and its integrated MyAccountingLab prove to be valuable tools to assist you!

Students Accounting is the language of business. Whether you intend to be an accountant or not, you owe it to yourself to develop your skills with this language so you can give yourself a winning edge in your career. Managerial accounting is used by managers of any department (such as human resources, IT, and operations), not just accountants. This isn't "just an accounting course"—*Managerial Accounting* is a foundation for future business courses and business dealings in your daily life. We know that managerial accounting can be a very challenging subject to learn, and we know that people have many different learning styles. We spoke with students to make sure that the changes made to the textbook and the new study resources meet your needs and help you to make connections between the classroom and the real world.

Faculty You have told us that your greatest challenges are teaching students effectively given their different business and accounting backgrounds, as well as motivating students to give accounting the study time and attention it deserves. So we set out to make this book not only "solid" in its managerial accounting concepts, but also less intimidating and more student friendly by making information easier to find, making topics easier to understand, and making examples more engaging for students. We have incorporated cases in the end-of-chapter material, as well as an integrative multi-chapter

case to provide students with opportunities to apply their newly acquired knowledge in lifelike scenarios.

A Great Book As managerial accounting instructors, and especially as managerial accounting authors, we have to face the reality that students (and some faculty!) don't use an accounting textbook, or any other textbook, the way they once did. We can't assume that anyone will read a chapter from beginning to end. Some people will, so for these people and for pedagogical reasons, we wrote each chapter so it could be read from beginning to end. However, time is tight for everyone, so the design of each chapter and added features is such that it makes it easier to tailor the course to your own purposes and jump to what you need.

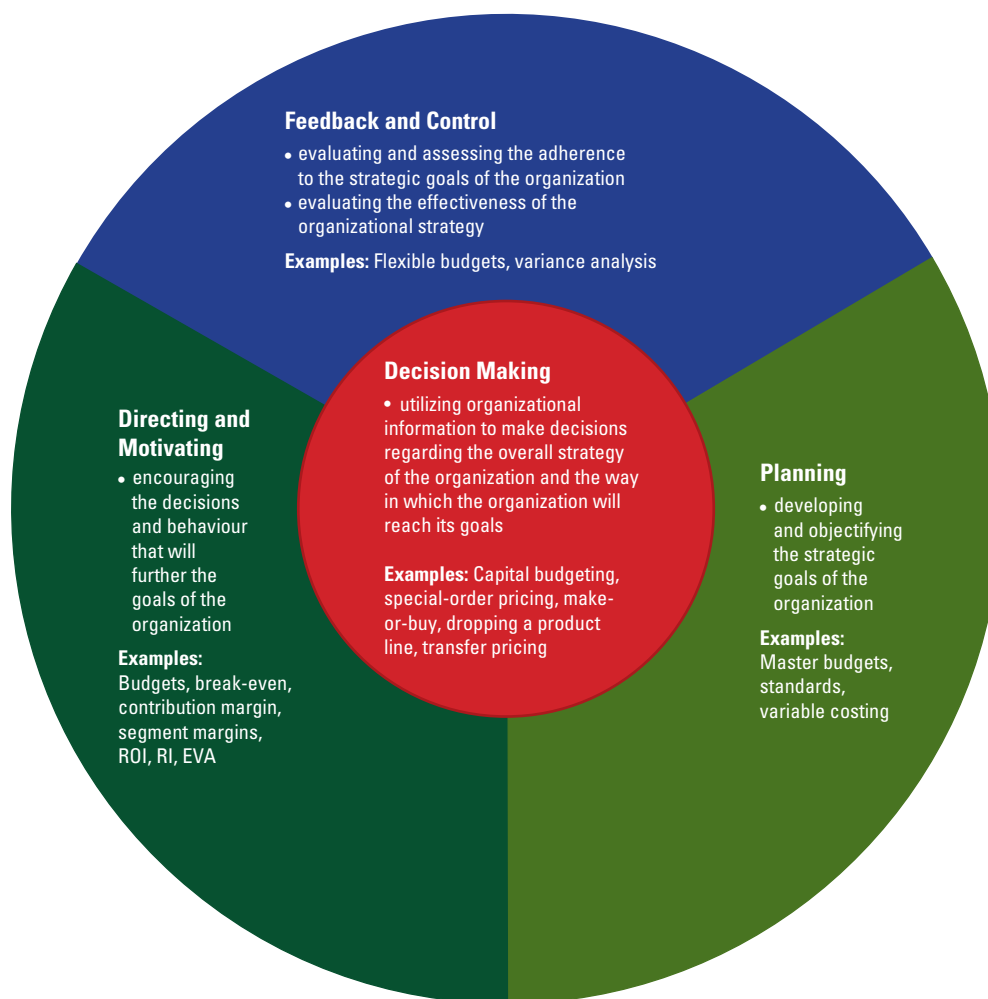
Online. Anytime. We also created a number of integrated tools and resources to support both faculty and students. Your portal to these resources is MyAccountingLab. Since faculty can't be available 24-7 to review what was taught in class, we provide online and mobile resources that present the topics in slightly different, dynamic, or interactive ways to make the concepts easier to understand. We have learned that the best way to make critical connections when learning accounting is to do it—to practice, practice, practice many similar questions until the concepts are clear, then track progress to develop a Study Plan, and then access what you need to fill in any gaps in learning. MyAccountingLab allows you to do all this—at whatever time of the day or night you like!

Managerial Accounting, MyAccountingLab, and their integrated resources are here to support your learning. Much success in your accounting course!

Louis Beaubien

Making Connections Using the Framework for Managerial Accounting

Managerial accounting concepts form the basis of how information should be created and reported to internal users for completing the tasks of planning, directing/motivating, and feedback/control. These managerial accounting concepts work together to form the framework for decision making. As the diagram shows, the decisions managers make are central to achieving the strategic and operational needs of the company.



Acronyms Used in Managerial Accounting

DM	Direct Materials	VC	Variable Costs
DL	Direct Labour	FC	Fixed Costs
MOH	Manufacturing Overhead	ROI	Return on Investment
COGS	Cost of Goods Sold	RI	Residual Income
COGM	Cost of Goods Manufactured	EVA	Economic Value Added
OI	Operating Income	CM	Contribution Margin
BE	Break-Even	CMA	Certified Management Accountant
CGA	Certified General Accountant	CA	Chartered Accountant
CPA	Chartered Public Accountant	BI	Beginning Inventory
WIP	Work In Process or Work in Progress	FG	Finished Goods Inventory
TP	Transfer Price	SM	Segment Margin

Prepare, Apply, and Confirm



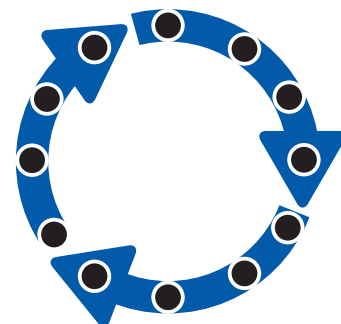
- **Auto-Graded Excel Projects**—Using proven, field-tested technology, MyAccountingLab's new auto-graded Excel Projects allow instructors to seamlessly integrate Excel content into their course without having to manually grade spreadsheets. Students have the opportunity to practice important Accounting skills in Microsoft Excel, helping them to master key concepts and gain proficiency in Excel. Students simply download a spreadsheet, work live on an accounting problem in Excel, and then upload that file back into MyAccountingLab, where they receive reports on their work that provide personalized, detailed feedback to pinpoint where they went wrong on any step of the problem.

- **Enhanced eText**—The Pearson eText gives students access to their textbook anytime, anywhere. In addition to note-taking, highlighting, and bookmarking, the Pearson eText offers interactive and sharing features. Instructors can share their comments or highlights, and students can add their own, creating a tight community of learners within the class.



- Keep students engaged in learning on their own time, while helping them achieve greater conceptual understanding of course material through author-created solutions videos, multimedia interactives, animations, and opportunities to Try It!

- **Accounting Cycle Tutorial**—Accessed by computer, smartphone, or tablet, the ACT provides students with brief explanations of each concept in the Accounting Cycle through engaging, interactive activities.



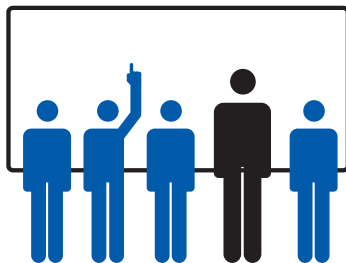
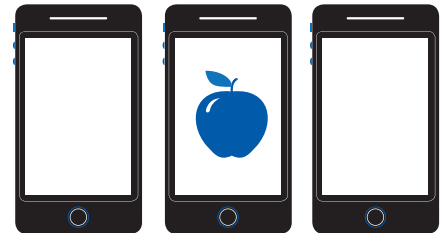
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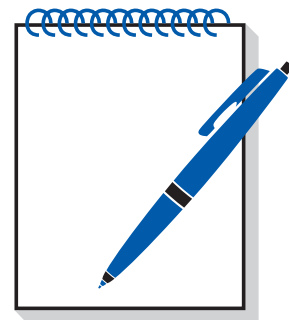
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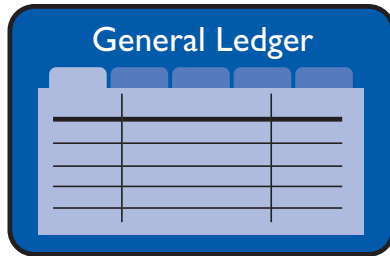


- **Personalized Study Plan**—Assists students in monitoring their own progress by offering them a customized study plan based on Homework, Quiz, and Test results. Includes regenerated exercises with unlimited practice, as well as the opportunity to earn mastery points by completing quizzes on recommended learning objectives.

- **Worked Solutions**—Provide step-by-step explanations on how to solve select problems using the exact numbers and data that were presented in the problem. Instructors will have access to the Worked Out Solutions in preview and review mode.



Prepare, Apply, and Confirm with MyAccountingLab[®]



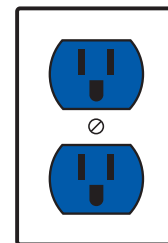
- **General Ledger**—Students can launch General Ledger software in MyAccountingLab, where they will be able to record transactions and adjusting entries, post to the ledger, close periods, and see the effects in the ledger accounts. Their work will be auto-graded, and grades will then automatically flow to the MyAccountingLab Gradebook.

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- **Mobile Ready**—Students and instructors can access multimedia resources and complete assessments right at their fingertips, on any mobile device.

THIRD CANADIAN EDITION

MANAGERIAL ACCOUNTING

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TEXT PERMISSIONS RESEARCH: iEnergizerAptara®, Inc.
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ISBN 978-0-13-415184-7

LLV ISBN 978-0-13-446082-6

10 9 8 7 6 5 4 3 2

Library and Archives Canada Cataloguing in Publication

Braun, Karen Wilken, author

Managerial accounting / Karen Wilken Braun, Wendy M. Tietz, and Louis Beaubien. — Third Canadian edition.


ISBN 978-0-13-415184-7 (hardback)

1. Managerial accounting—Textbooks. I. Tietz, Wendy M., author
II. Beaubien, Louis A. (Louis Alain), author III. Title.

HF5657.4.B73 2017 658.15'11 C2016-905771-2



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13 Financial Statement Analysis Online

CASE APPENDIX An Introduction to

Case Analysis **Online**

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Visual Walk-Through

NEW! Integration of CPA Competencies. We have increased the focus on covering the competencies outlined in the CPA Competency Map and Knowledge Supplement in the third edition. Each chapter now opens with a list of Professional Competencies, related Knowledge Items, and levels covered in that chapter; also a master list of all Competencies and Knowledge Items is available on the front inside cover. These features will allow students and faculty interested in CPA designation to become familiar with the Competency Map and the material covered in the book.

Learning objectives are the important concepts in each chapter. Expressed in everyday language, these LOs are mapped throughout the chapter, end-of-chapter assessment, and MyAccountingLab; this allows students to accurately track their understanding of each learning objective.

A **chapter-opening vignette** shows why the topics in the chapter are important to companies and businesspeople.

3

3

Cost Behaviour

Chapter 3 "Cost Behaviour" covers material outlined in **Section 3: Management Accounting** of the CPA Competency Map (by Competency Area). Specifically, this chapter addresses **Section 3.3 Cost Management**, and **Section 3.4 Revenue Management**. The Learning Objectives in this chapter have been aligned with the CPA Competency map to ensure the best coverage possible.


PROFESSIONAL COMPETENCY The presence of the **coverage button** in the margin indicates focus on one or more of the specific competencies areas from the competency map. The concepts in the text are building blocks to developing the competencies requires in the CPA. While the chapter may address multiple areas of the competency map, the main focus will be:

Competencies:

- 3.3.1** Evaluates cost classifications and costing methods for management of ongoing operations
- 3.3.2** Evaluates and applies cost management techniques appropriate for specific costing decisions
- 3.4.1** Evaluates sources and drivers of revenue growth
- 3.5.2** Evaluates sustainable profit maximization and capacity management performance

Learning Objectives

- 1** Describe key characteristics and graphs of various cost behaviours.
- 2** Use cost equations to express and predict costs.
- 3** Use account analysis and scatter plots to analyze cost behaviour.
- 4** Use the high-low method to analyze cost behaviour.
- 5** Use regression analysis to analyze cost behaviour.
- 6** Prepare contribution margin income statements for service firms and merchandising firms.
- 7** Use variable costing to prepare contribution margin income statements for manufacturers. (Appendix 3A)
- 8** Use segment reporting to utilize the contribution margin income statement format in an organization with two or more divisions. (Appendix 3B)



Nestled among the Rocky Mountains in Banff, Alberta, and surrounded by Canada's oldest national park lies the Banff Rocky Mountain Resort, with 171 luxurious rooms offering spectacular views of the Canadian wilderness. Tourists, business people, and romance-seekers travel from around the world to take advantage of the skiing, hiking, golfing, and other recreational activities at the resort or just to relax in the outdoor hot tub.

How do hotel managers set prices high enough to cover costs and earn a profit but low enough to fill most rooms each night? How do they plan for higher occupancy during the busy summer months and lower occupancy during the off-season? They know how their costs behave. Some hotel costs, such as complimentary morning breakfasts and

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Try It!

NEW! Found throughout the chapter, Try It! interactive questions give students the opportunity to apply the concept they just learned. Video Solutions, found in the MyAccountingLab, feature the author walking through select Try It! problems on a white board. Designed to give students detailed help when they need it.

Cost Behaviour 121

TRY IT!

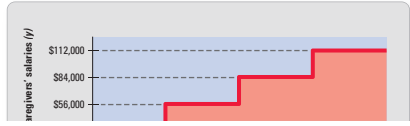
Assume the local fitness club charges a membership fee of \$30 per month for unlimited use of the exercise equipment, plus an additional fee of \$5 for every instructor-led exercise class you attend.

1. Express the monthly cost of belonging to the fitness club as a cost equation.
2. What is your expected cost for a month in which you attend five instructor-led classes?
3. If your attendance doubles to 10 classes per month, will your total cost for the month double? Explain.

• Please see page 181 for solutions.

Step costs resemble stair steps: they are fixed over a small range of activity and then jump up to a new fixed level with moderate changes in volume. Hotels, restaurants, hospitals, and educational institutions typically experience step costs. For example, regulated day-care centres are required to limit the caregiver-to-child ratio depending on the age of the child. New Brunswick sets a ratio of 1:8 for children between the ages of three and four years. As shown in Exhibit 3-10, a day-care centre that takes on a ninth child must incur the cost of employing another caregiver. The new caregiver can watch the ninth through sixteenth children enrolled at the day-care centre. If the day-care centre takes on a seventeenth child, management will once again need to hire another caregiver, costing another \$28,000 in salary. The same step cost patterns occur with hotels (maid-to-room ratio), restaurants (server-to-table ratio), hospitals (nurse-to-bed ratio), and schools (teacher-to-student ratio).

EXHIBIT 3-10 Step Costs



Excel Exhibits

NEW! To give students a glimpse into the real world presentation of managerial accounting topics, all financial statements and schedules are presented in Excel. In the MyLab, selected exhibits have a video that will teach students how to create the same schedule using Excel.

2. Take a contribution margin approach to determining whether the special order is profitable:

	A	B	C
	Incremental Analysis for Special Order Decision		Total Order (40,000 units)
1		Per Unit	
2	Revenue from special order	\$ 19.00	\$ 760,000
3	Less: Variable expenses associated with the order (DM, DL, Variable MOH)	15.00	600,000
4	Contribution margin	\$ 4.00	\$ 160,000
5	Less: Additional fixed expenses associated with the order		5,000
6	Increase in operating income from the special order		\$ 155,000
7			

page 472:

1. Analyze the revenues and costs that would be lost if the salad bar operation is discontinued:

	A	B	C
	Incremental Analysis for Discontinuation Decision		Total
1			
2	Sales revenue from salad bars	\$ 750,000	
3	Less: Variable expenses related to salad bars		600,000
4	Contribution margin lost if salad bars are discontinued	\$ 150,000	
5	Less: Fixed cost savings if salad bars are discontinued		20,000
6	Operating income lost if salad bars are discontinued	\$ 130,000	
7			
8			
9			
	If Salad Bars Are Replaced with Olive Bars		Total
10	Contribution margin provided by olive bar	\$ 200,000	
11	Less: Operating income lost if salad bars are discontinued		130,000
12	Increase in operating income from replacing salad bars with olive bars	\$ 70,000	
13			

page 479:

- As shown below, the total cost of outsourcing the ski poles and leaving the freed capacity idle is \$325,000 greater than the cost to produce the poles in-house. Rossignol should not outsource production because its operating income would decline by \$325,000.
- However, Rossignol's income would increase by \$175,000 if it outsources production and uses the freed capacity to make ski boots.

	A	B	C	D	
	Incremental Analysis Outsourcing Decision		Make Ski Poles	Outsource Ski Poles	Difference
1					
2	Variable Costs:				
3	If make: \$13.50 × 100,000 units				
4	If outsource: \$18.00 × 100,000 units	\$ 1,350,000	\$ 1,800,000	\$ 450,000	
5	Plus: Fixed costs	650,000	525,000	(125,000)	
6	Total cost of producing 100,000 units	\$ 2,000,000	\$ 2,325,000	\$ 325,000	
7	Less: Income from ski boots if outsource	0	500,000	500,000	
8	Net cost	\$ 2,000,000	\$ 1,825,000	\$ (175,000)	

Sustainability

Sustainability boxes are integrated into the body of each chapter, providing students with insight on how sustainability applies to accounting concepts. Related questions are included in the end-of-chapter assessment.



Sustainability and Short-Term Business Decisions

See Exercises E8-18A and E8-33B

For companies that embrace sustainability and the triple bottom line, almost every decision will be viewed through the lens of its impact on people and the planet, as well as profitability. For example, let's look at Timberland, a company with \$1.4 billion in annual revenue that specializes in outdoor shoes and clothing. Timberland is intentionally "focusing the resources, energy, and profits of a publicly traded...company to combat social ills, help the environment, and improve conditions of laborers around the globe."¹

In the words of Jeffrey Swartz, President and CEO, "Timberland believes, and has always believed, that we have a responsibility to help effect change in the communities where we work and live." The company is committed to "doing well and doing good." But how does the company work toward such lofty goals? Here are a few examples of the company's many initiatives:²

- Employees are given up to 40 hours of paid leave each year to perform community service work.
- The company's strict Code of Conduct ensures that domestic and overseas workers are employed at fair wage rates, work reasonable shifts, and work in safe factories.
- The company is committed to being environmentally conscious in the production of its products. The company labels its footwear with a Green Index rating system. The index educates consumers about the product's climate impact, chemicals used, and materials (percentage of organic, recycled, or renewable materials) used.
- The company uses solar panels on its California distribution centre to provide 60% of its energy. This \$3.5 million investment was made, even though cost models showed it might take 20 years for the investment to earn a return.
- By the end of 2013, Timberland met its 2015 goal to reduce GHG emissions by 50% by 2015, based on 2006 baseline.

In 2013 alone, the brand reported a 22% reduction in GHG emissions as compared to 2012. A second goal related to climate change, to source 30% of energy from clean, renewable sources by 2015, based on 2006 baseline, is also on track. By the end of 2013, Timberland derived 26% of its energy from renewable sources, exceeding its 2013 target of 23%, and just one percent shy of its 27% goal for 2014. In 2013 alone, the brand increased its use of renewable energy by 28% versus 2012.

¹Reingold, Jennifer, "Walking the Walk," *Fast Company*, November, 2005. <http://www.fastcompany.com/magazine/100/timberland.html?page=0%2C0>
²www.timberland.com

How Do Managers Make Special Business Decisions?

In this part of the chapter we'll consider five more special business decisions:

- Accept a special order

A Segment is an independent or semi-independent unit within an organization. A segment could

STOP & THINK

What would Kay's operating income be if she sold 501 posters? What would it be if she sold 600 posters?

Answer: Every poster sold provides \$14 of contribution margin, which contributes first toward covering fixed costs, then to profit. Once Kay reaches her break-even point (500 posters), she has covered all fixed costs. Therefore, each additional poster sold after the break-even point contributes \$14 *directly to profit*. If Kay sells 501 posters, she has sold one more poster than break-even. Her operating income is \$14. If she sells 600 posters, she has sold 100 more posters than break-even. Her operating income is \$1,400 (\$14 per poster \times 100 posters). We can verify this as follows:

Contribution margin (600 posters \times \$14 per poster).....	\$ 8,400
Less: Fixed expenses.....	(7,000)
Operating income.....	\$ 1,400

Once a company achieves break-even, each additional unit sold contributes its unique unit contribution margin directly to profit.

The Shortcut Approach Using the Contribution Margin Ratio

It is easy to compute the break-even point in *units* for a simple business like Kay's that has only one product. It is more difficult for companies that have more than one product or service such as Bombardier and Black Fly Beverage Company. Multiproduct companies usually compute break-even in terms of sales dollars (revenue).

To calculate break-even in terms of dollars, fixed expenses plus operating income are divided by the contribution margin *ratio* (not by contribution margin *per unit*) to yield sales in *dollars* (not *units*):

$$\text{Sales in dollars} = \frac{\text{Fixed expenses} + \text{Operating income}}{\text{Contribution margin ratio}}$$

Recall that Kay's contribution margin ratio is 40%. At the break-even point, operating income is \$0, so Kay's break-even point in sales revenue is as follows:

$$\begin{aligned} \text{Sales in dollars} &= \frac{\$7,000 + \$0}{0.40} \\ &= \$17,500 \end{aligned}$$

This is the same break-even sales revenue calculated earlier (500 posters \times \$35 sales price = \$17,500). Each dollar of Kay's sales contributes \$0.40 to fixed expenses and profit. To break even, she must generate enough contribution margin at the rate of \$0.40 per sales dollar to cover the \$7,000 fixed expenses (\$7,000 \div 0.40 = \$17,500).

Stop & Think, a question-and-answer section, encourages students to think critically about the application of key concepts.

Managers do not need to rely on graphs to predict total variable costs at different volumes of activity. They can use a **cost equation**, a mathematical equation for a straight line, to express how a cost behaves. On cost graphs like those pictured in Exhibit 3-1, the vertical (y-axis) always shows total costs, while the horizontal axis (x-axis) shows volume of activity. Therefore, any variable cost line can be mathematically expressed as follows:

2 Use cost equations to express and predict costs.

$$\text{Total variable cost (y)} = \text{Variable cost per unit of activity (v)} \times \text{Volume of activity (x)}$$

PROFESSIONAL COMPETENCY

Or simply:

$$y = vx$$

The hotel's total toiletry cost is as follows:

$$y = \$3x$$

wherein

$$\begin{aligned} y &= \text{total toiletry cost} \\ \$3 &= \text{variable cost per guest} \\ x &= \text{number of guests} \end{aligned}$$

Why is this important?
Cost equations help managers foresee what their **total costs** will be at **different operating volumes** so that they can **better plan for the future**.

Why Is This Important? highlights the connection of accounting to the business environment so students can better understand the business significance of managerial accounting.

We can confirm the observations made in Exhibit 3-1(A) using the cost equation. If the hotel has no guests ($x = 0$), total toiletry costs are zero, as shown in the graph. If the hotel has 2,000 guests, total toiletry costs will be

$$\begin{aligned} y &= \$3 \text{ per guest} \times 2,000 \text{ guests} \\ &= \$6,000 \end{aligned}$$

If the hotel has 4,000 guests, managers will expect total toiletry costs to be

$$\begin{aligned} y &= \$3 \text{ per guest} \times 4,000 \text{ guests} \\ &= \$12,000 \end{aligned}$$

STOP & THINK

If the hotel serves 3,467 guests next week, how much will it spend on complimentary toiletries?

Answer: You would have a hard time answering this question by simply looking at the graph in Exhibit 3-1(A), but cost equations can be used for any volume. We "plug in" the expected volume to our variable cost equation as follows:

$$\begin{aligned} y &= \$3 \text{ per guest} \times 3,467 \text{ guests} \\ &= \$10,401 \end{aligned}$$

Management expects complimentary toiletries next week to cost about \$10,401.

Decision Guidelines summarize key terms, concepts, and formulas in the context of specific business decisions so that students can see how accounting is used to make good business decisions.

Summary Problems allow students to practise the skills outlined in the decision guidelines.

Accounting Vocabulary lists all the bolded terms in the chapter, with definitions and page references. There is also a complete glossary at the end of the book.

Requirement 2

Because the company has warranty returns and is involved in product liability litigation, it is very possible that the company suffers from a reputation for poor-quality products. If so, it is losing profits because it is losing sales. Unsatisfied customers will probably avoid buying from the company in the future. Worse yet, customers may tell their friends and family not to buy from the company. This report does not include an estimate of the lost profits arising from the company's reputation for poor-quality products.

Requirement 3

The Cost of Quality Report shows that very little is being spent on prevention and maintenance, which is probably why the internal and external failure costs are so high. The CEO should use this information to develop quality initiatives in the areas of prevention and appraisal. Such initiatives should reduce future internal and external failure costs.

DECISION GUIDELINES

The Changing Regulatory and Business Environment

Successful companies respond to changes in the regulatory and business environment. Here are some of the decisions managers need to consider.

Decision	Guidelines
I'm a Canadian corporation. Do I need to worry about SOX?	Publicly traded Canadian companies that are listed on the U.S. stock market must comply with SOX; however, Canadian regulations, similar in nature to SOX, have been implemented for the domestic market. These regulations have been designed and recommended by the Canadian Securities Administrators and implemented by the securities organizations for each province and territory.
I'm a Canadian company, but I have operations in other countries as well. How will IFRS help me?	Companies that operate in more than one country will no longer be required to prepare multiple financial statements using different standards for each country. Rather, they will prepare one set of financial statements in accordance with International Financial Reporting Standards (IFRS).
In the past, I have been able to find information about companies on the internet, but it took a long time to organize it. Can XBRL reduce the time it would take to do so?	XBRL will allow managers to more easily obtain and analyze publicly available financial data from their competitors, from companies they may wish to purchase, or from companies in which they may want to invest.
I would like to take my Canadian company into the global market. What might help me compete?	The use of advanced information systems, e-commerce, supply-chain management, lean production, and TOM will help a company to compete more effectively. Also, consider becoming ISO 9001:2008 certified.
How do I know if new initiatives such as international expansion, ERP, lean production, and TOM will be worth it in the long run?	By using cost-benefit analysis—comparing the estimated benefits of the initiative with the estimated costs—you will see whether or not the benefits of the project exceed its costs. You can then determine the best alternative for your situation.

SUMMARY PROBLEM 3

EZ-Rider Motorcycles is thinking about expanding into Germany. If gas prices increase, the company expects more interest in fuel-efficient transportation, such as motorcycles. As a result, the company is considering setting up a motorcycle assembly plant on the outskirts of Berlin. EZ-Rider Motorcycles estimates it will cost \$850,000 to convert an existing building to motorcycle production. Workers will need training, at a total cost of \$65,000. The additional costs to organize the business and to establish relationships are estimated to be \$150,000.

END OF CHAPTER

LEARNING OBJECTIVES

- 1 Describe key characteristics and graphs of various cost behaviours.
- 2 Use cost equations to express and predict costs.
- 3 Use account analysis and scatter plots to analyze cost behaviour.
- 4 Use the high-low method to analyze cost behaviour.
- 5 Use regression analysis to analyze cost behaviour.
- 6 Prepare contribution margin income statements for service firms and merchandising firms.
- 7 Use variable costing to prepare contribution margin income statements for manufacturers. (Appendix 3A)
- 8 Use segment reporting to utilize the contribution margin income statement format in an organization with two or more divisions. (Appendix 3B)

ACCOUNTING VOCABULARY

- Absorption Costing (p. 138)** The costing method in which products "absorb" both fixed and variable manufacturing costs.
- Account Analysis (p. 125)** A method for determining cost behaviour that is based on a manager's judgment in classifying each general ledger account as a variable, fixed, or mixed cost.
- Committed Fixed Costs (p. 115)** Fixed costs that are locked in because of previous management decisions; management has little or no control over these costs in the short run.
- Consolidated Financial Statement (p. 146)** A financial statement that incorporates all of the divisions of a company in one report.
- Contribution Margin (p. 134)** Sales revenues minus variable expenses.
- Contribution Margin Income Statement (p. 133)** Income statement that organizes costs by behaviour (variable costs or fixed costs) rather than by function.
- Cost Behaviour (p. 111)** Describes how costs change as volume changes.
- Cost Equation (p. 113)** A mathematical equation for a straight line that expresses how a cost behaves.
- Curvilinear Costs (p. 121)** A cost behaviour that is not linear (not a straight line).
- Discretionary Fixed Costs (p. 115)** Fixed costs that are a result of annual management decisions; fixed costs that are controllable in the short run.
- Fixed Costs (p. 111)** Costs that do not change in total despite wide changes in volume.
- High-Low Method (p. 127)** A method for determining cost behaviour that is based on two historical data points: the highest and lowest volume of activity.
- Mixed Costs (p. 111)** Costs that change but not in direct proportion to changes in volume. Mixed costs have both variable cost and fixed cost components.
- Outliers (p. 127)** Abnormal data points; data points that do not fall in the same general pattern as the other data points.
- Regression Analysis (p. 127)** A statistical procedure for determining the line that best fits the data by using all of the historical data points, not just the high and low data points.
- Relevant Range (p. 114)** The range of operations within which the total fixed costs and the variable cost per unit remain constant.
- Segment Margin (p. 147)** The excess of sales over variable costs and traceable fixed costs for a segment of the organization.
- Segmented Statement (p. 146)** A financial statement that shows the detail of different divisions in separate columns, utilizing the contribution margin income statement format.
- Step Costs (p. 121)** A cost behaviour that is fixed over a small range of activity and then jumps to a different fixed level with moderate changes in volume.
- Variable Costs (p. 111)** Costs that change in total in direct proportion to changes in volume.
- Variable Costing (p. 138)** The costing method that assigns only variable manufacturing costs to products.

Quick Check section is a series of questions designed to test student recall of key concepts. Answers are provided in the text.

Most of the questions in the book appear on MyAccountingLab, along with additional interactive resources such as videos, animations, and resources to help students master managerial accounting concepts. This provides students with the ability to re-test assigned questions or attempt alternative versions of the same or similar questions to reinforce learning.

MyAccountingLab

Exercises marked with # can be found on MyAccountingLab.

We have included **Group A** and **Group B Exercises** in the textbook so that instructors can work through the exercises in one of these groups in class and assign the other group as individual work, giving students more practice on these key concepts.

Case Assignments appear in Chapters 3 through 12. They are designed to test the students' understanding of the concepts in realistic, complex scenarios.

NEW! Accounting in the Headlines One of the biggest challenges for accounting instructors is that students often feel disengaged from the course material, which can seem abstract and unrelated to their personal experiences. But by incorporating real-life examples, instructors can spark student interest and engagement especially when teaching accounting at the introductory level.

Accounting in the Headlines, an award-winning blog by renowned author Wendy Tietz, does just that, with stories about real companies and events that can be used in the accounting classroom to illustrate introductory financial accounting concepts.

Concise, tailorable, and updated on a weekly basis, these articles easily fit into the typical introductory accounting curriculum, whether the course is delivered in-person or online: <http://accountingintheheadlines.com>

Accounting in the Headlines multiple-choice questions are available for instructors to assign in MyAccountingLab's Assignment Manager.

CAPSTONE APPLICATION PROBLEMS

APPLICATION QUESTION

A4-73 Determine the feasibility of a business plan (Learning Objective 2)

Brian and Nui Soon live in Sudbury. Two years ago, they visited Thailand. Nui, a professional chef, was impressed with the cooking methods and the spices used in the Thai food. Sudbury does not have a Thai restaurant, and the Soons are contemplating opening one. Nui would supervise the cooking and Brian would leave his current job to be the maitre d'. The restaurant would serve dinner Tuesday through Saturday.

Brian has noticed a restaurant for lease. The restaurant has seven tables, each of which can seat four. Tables can be moved together for a large party. Nui is planning two seatings per evening, and the restaurant will be open 50 weeks per year.

The Soons have drawn up the following estimates:

Average revenue, including beverages and dessert.....	\$ 40 per meal
Average cost of the food.....	\$ 12 per meal
Chef's and dishwasher's salaries.....	\$50,400 per year
Rent (premises, equipment).....	\$ 4,000 per month
Cleaning (linen and premises).....	\$ 800 per month
Replacement of dishes, cutlery, glasses.....	\$ 300 per month
Utilities, advertising, telephone.....	\$ 1,900 per month

Requirement

Compute the *annual* break-even number of meals and sales revenue for the restaurant. Also, compute the number of meals and the amount of sales revenue needed to earn operating income of \$75,600 for the year. How many meals must the Soons serve each night to earn their target income of \$75,600? Should the couple open the restaurant? Support your answer.

CASE ASSIGNMENT

C4-74 Shining Oaks Toy Company



Source: Laborant/Shutterstock

CVP analysis

Alvarez Garcia grew up always working with his father in a woodshop in their back yard. It was no surprise to the family when Alvarez decided to pursue carpentry as a career. When he was in school, he found that he much preferred the fine detail work of small objects rather than building large cabinets and furniture. Alvarez and two other students in the

Demo Doc Problems and Solutions appear in Chapters 4, 5, 6, and 9. These provide walk-through problems for demonstration and comprehension of the concepts.

Case Appendix (MyAccountingLab) This innovative tool will provide students with direction on case analysis. Associated with the case appendix and found in the MAL are three **Multi-Chapter Cases**. These situational cases test the students' ability to apply multiple managerial accounting concepts to resolving the scenario. Each scenario is a stand-alone case, allowing instructors to assign only those cases that are applicable to their course.

MyAccountingLab

MyAccountingLab delivers *proven results* in helping individual students succeed.

It provides *engaging experiences* that personalize, stimulate, and measure learning for each student. And, it comes from a *trusted partner* with educational expertise and an eye on the future.

MyAccountingLab is the portal to an array of learning tools for all learning styles—practice questions with guided solutions are only the beginning. Students can access MyAccountingLab at www.pearsonmylabandmastering.com.

MyAccountingLab can be used by itself or linked to any learning management system.

MyAccountingLab provides students with a variety of resources, including a personalized study plan, tutorials, videos, and animations. In addition, select chapters have Canadian professional designation exam prep questions, allowing students to see how some of the concepts may be examined by the professional designations. These questions are supplied on MyAccountingLab.

NEW! Auto-graded Excel projects—using proven, field-tested technology, MyAccountingLab's new auto-graded Excel projects allow instructors to seamlessly integrate Excel content into their course without having to manually grade spreadsheets. Students have the opportunity to practise important accounting skills in Microsoft Excel, helping them to master key concepts and gain proficiency in Excel. Students simply download a spreadsheet, work live on an accounting problem in Excel, and then upload that file back into MyAccountingLab, where they receive reports on their work that provide personalized, detailed feedback to pinpoint where they went wrong on any step of the problem.

To learn more about how MyAccountingLab combines proven learning applications with powerful assessment, instructors can visit www.pearsonmylabandmastering.com.

New to this Edition

The third Canadian edition of *Managerial Accounting* brings several important changes. We have updated and refreshed examples from industry and added focus to the elements of sustainability accounting included in previous chapters. We have also developed new Try It! features to give more opportunities for practice alongside closer integration to practical modeling examples (i.e., Excel) and MyAccountingLab. For those students interested in pursuing accounting as a career, all chapters now include CPA competency buttons that help highlight content tied to the key CPA competencies.

Some of the most significant changes include the reorganization of chapter content (as detailed below)

to provide a comprehensive discussion of management accounting, outlined in a sequence that fits the modern classroom best!

Thank you for choosing the text!

Chapter 1: Introduction to Managerial Accounting

- Streamlined content (e.g. SOX and Production System made more concise).
- Updates for currency of examples, topics, or Canadianizations.
- Further expansion of the strategic aspects and the link between theory and application in management accounting (both for majors and general business students).
- Updates to ethics section—not all illegal behaviour is unethical.

Chapter 2: Building Blocks of Managerial Accounting

- Updates for currency of examples, topics, or Canadianizations.
- Further expansion of the strategic aspects and the link between theory and application in management accounting (both for majors and general business students).

Chapter 3: Cost Behaviour (formerly Chapter 6)

- New chapter placement—this was formerly Chapter 6.
- Updates for currency of examples, topics, or Canadianizations.
- Includes a more applied discussion of the link between theory and the relevant tasks of running a business.
- Further linkage between theory and practice that keeps the text relevant to majors and non-majors alike.
- Simplified language.

Chapter 4: Cost-Volume-Profit Analysis (formerly Chapter 7)

- New chapter placement—this was formerly Chapter 7.
- Updates for currency of examples, topics, or Canadianizations.
- Revised organization to enhance readability and pedagogical value.
- Further linkage between theory and practice that keeps the text relevant to majors and non-majors alike.
- Improved clarity by providing definitions (e.g. relevant range).

Chapter 5: Job Costing (formerly Chapter 3)

- New chapter placement—this was formerly Chapter 3.

- Updates for currency of examples, topics, or Canadianizations.
- Further expansion of the strategic aspects and the link between theory and application in management accounting (both for majors and general business students).
- Revised placement of over/under allocated OH.
- Inclusion of further examples to clarify that hybrid costing is not only applicable in manufacturing.

Chapter 6: Process Costing (formerly Chapter 5)

- Updates for currency of examples, topics, or Canadianizations.
- Further expansion of the strategic aspects and the link between theory and application in management accounting (both for majors and general business students).
- Reorganized so that the mechanics of process costing comes before sustainability.
- More reference to service companies.
- Section on weighted average versus FIFO methods included as an Appendix.

Chapter 7: Activity Based Costing (formerly Chapter 4)

- Updates for currency of examples, topics, or Canadianizations.
- Further expansion of the strategic aspects and the link between theory and application in management accounting (both for majors and general business students).
- Included content on high cost of ABC.
- Mentions individuals who collect the data in the ABC system.
- Revised definition of value-added activity.
- More examples integrated, including an example of ABC in a service industry and an example of under costing/over costing.
- Clarified and provided more detail in the sections on ABC versus ABM.

Chapter 8: Short-Term Business Decisions

- Improved organization to enhance readability and pedagogical value.
- Improved linkage between theory and practice to keep the text relevant to majors and non-majors alike. The writing in this chapter can also be simplified.
- Maintaining currency of any examples, topics, and Canadianizations.
- Added content on throughput costing.
- Separated out pricing from the discussion of special order decisions.

- Target costing/pricing identified as a separate learning objective.

Chapter 9: The Master Budget and Responsibility Accounting

- Content and language streamlined to make accessible to non-majors.
- Further integration through examples and decision guidelines between Chapters 9 and 10 so that students can make links between concepts.
- Tying relevancy and research to practice.
- Writing simplified.
- Maintaining currency of any examples, topics, and Canadianizations.

Chapter 10: Flexible Budgets and Standard Costs

- Content and language streamlined to make accessible to non-majors.
- Further integration through examples and decision guidelines between Chapters 9 and 10 so that students can make links between concepts.
- Tying relevancy and research to practice.
- Writing simplified.
- Maintaining currency of any examples, topics, and Canadianizations.

Chapter 11: Performance Evaluation and the Balanced Scorecard

- Writing simplified.
- Maintaining currency of any examples, topics, and Canadianizations.
- Discussion of different strategies; for instance “planned” versus “emergent” strategies, and internally focused strategies (e.g., core competencies of the firm [Pralhad and Hamel, 1991]) and externally focused strategies (e.g., The Five-Forces Model [Porter, 1990]).

Chapter 12: Capital Investment Decisions and the Time Value of Money

- Maintaining currency of any examples, topics, and Canadianizations.

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The Pearson eText gives students access to their textbook anytime, anywhere. In addition to note taking, highlighting, and bookmarking, the Pearson eText offers interactive and sharing features. Instructors can share their comments or highlights, and students can add their own, creating a tight community of learners within the class.

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- **Instructor's Solutions Manual:** This manual contains full solutions for all end-of-chapter material.
- **Instructor's Resource Manual:** Provided in PDF format, this manual includes chapter overviews, chapter outlines, detailed outlines with teaching tips tied to learning objectives, chapter student summary handouts, chapter assignment grids, and chapter quizzes with answer key.
- **Computerized Test Bank.** Pearson's computerized test banks allow instructors to filter and select questions to create quizzes, tests, or

homework. Instructors can revise questions or add their own, and may be able to choose print or online options. These questions are also available in Microsoft Word format.

- **PowerPoint Presentation for instructors and students** is a highly visual and comprehensive set of PowerPoint files with 40 to 60 slides per chapter.

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We hope you enjoy *Managerial Accounting*!

About the Authors



Karen Wilken Braun is currently a faculty member of the Weatherhead School of Management at Case Western Reserve University. From 1996 to 2004, Professor Braun was on the faculty of the J.M. Tull School of Accounting at the University of Georgia, where she received the Outstanding Accounting Teacher of the Year award from the UGA chapter of Alpha Kappa Psi.

Professor Braun is a certified public accountant and a member of the American Accounting Association (AAA). She is also a member of the AAA's Management Accounting Section and the Teaching, Learning, and Curriculum Section.

Dr. Braun received her Ph.D. from the University of Connecticut, where she was an AICPA Doctoral Fellow, a Deloitte & Touche Doctoral Fellow, and an AAA Doctoral Consortium Fellow. She received her B.A., *summa cum laude*, from Luther College, where she was a member of Phi Beta Kappa and received the Outstanding Accounting Student award from the Iowa Society of Certified Public Accountants.

She gained public accounting experience while working at Arthur Andersen & Co. and accumulated additional business and management accounting experience as corporate controller for Gemini Aviation Inc.

Professor Braun and her husband, Cory, have two daughters, Rachel and Hannah. In her free time she enjoys playing tennis, gardening, skiing, hiking, and music.



Wendy M. Tietz is currently a faculty member in the Department of Accounting in the College of Business Administration at Kent State University, where she has taught since 2000. Prior to teaching at Kent State University, she was on the faculty at the University of Akron. She teaches in a variety of formats, including large sections, small sections, and Web-based sections. She has received numerous college and university teaching awards while at Kent State University.

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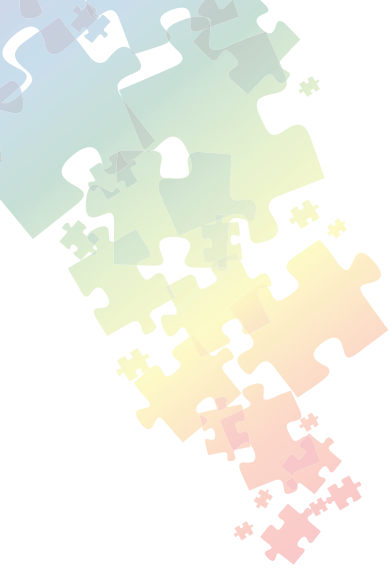
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Professor Tietz and her husband, Russ, have two sons, who are both in college. In her spare time she enjoys playing tennis, bike riding, reading, and learning about new technology.



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Professor Beaubien is a chartered professional accountant and a member of the Canadian Academic Accounting Association (CAAA) and the American Accounting Association (AAA). Dr. Beaubien received his Ph.D. from the Richard Ivey School of Business at the University of Western Ontario. Prior to graduate school he gained professional experience in the financial services and consulting industry. Dr. Beaubien's research has covered areas including accounting in financial services, the co-operative sector, and healthcare.



Acknowledgments

Managerial Accounting, Third Canadian Edition, is the product of a rigorous research and review process to ensure the revision meets the needs of Canadian students and faculty. The feedback helped structure this edition in both content and assignment material. A huge debt is owed to those who provided their time, support, and feedback throughout this process:

Lynn Carty, *University of Guelph*
Tammy Crowell, *Dalhousie University*
Carol Fearon, *Seneca College*
Arsineh Garabedian, *Simon Fraser University*
Rob Harvey, *Algonquin College*
Donna Losell, *University of Toronto (Rotman School of Management)*
Debbie Musil, *Kwantlen Polytechnic University*
Geoffrey Prince, *Centennial College*
Pamela Quon, *Athabasca University*
Rand Rowlands, *George Brown College*
Victor Waese, *British Columbia Institute of Technology*
Judith Watson, *Capilano University*
Patricia Zima, *Mohawk College*

I would also like to thank the people at Pearson Canada for their hard work and dedication, including Megan Farrell, who put together a wonderful editorial team, including Keriann McGoogan, and Cat Haggert, who took charge of this project, found the resources where none seemed to exist, and guided the project to a fantastic conclusion. Their good spirits, loyalty, and dedication made the long work of completing this project easier and more worthwhile.

Appreciation also goes to the Chartered Professional Accountants of Canada, the Canadian Institute of Chartered Accountants, the Certified General Accountants Association of Canada, the Society of Management Accountants of Canada, and many other publishers and companies for their generous permission to quote from their publications.

Introduction to Managerial Accounting

Learning Objectives

- 1 Identify managers' four primary responsibilities.
- 2 Distinguish financial accounting from managerial accounting.
- 3 Describe organizational structure and the roles and skills required of management accountants within the organization.
- 4 Describe the role of CPA Canada, and apply its guidelines for ethical behaviour.
- 5 Discuss and analyze the implications of regulatory and business trends.
- 6 Describe a lean production system.
- 7 Describe and use the costs of quality framework.

Chapter 1, "Introduction to Managerial Accounting," covers material outlined in **Section 5, Part 3: Management Accounting** of the CPA Competency Map (by Competency Area). This chapter offers a general introduction to Management Accounting.

PROFESSIONAL COMPETENCY The presence of the **coverage button** in the margin indicates focus on one or more of the specific competency areas from the competency map. The concepts in the text are building blocks to developing the competencies required in the CPA. While the chapter may address multiple areas of the competency map, the main focus will be:

Competencies:

- 3.1.1 Evaluates management information requirements*
- 3.1.2 Evaluates the types of information systems used and the role they play in an organization*
- 3.1.4 Identifies ethical and privacy issues related to information technology*

The founders of Prime Restaurants Inc. (Prime)

created a niche in the casual dining market in 1980 when they opened their first Casey's restaurant in Sudbury, Ontario. The focus was to provide good food at the right price so that restaurant-goers could still afford to go out for dinner in economic downturns, thereby buffering the restaurant from the effects of a changing economy. Since the first restaurant opened, the company has grown to include the well-known brands of Casey's, Pat & Mario's, East Side Mario's, Finn MacCool's, D'Arcy McGee's, Paddy Flaherty's, Bier Markt, and Tir nan Óg. With significant growth in the past decade, the Prime group of restaurants included about 150 locations in 2014. Some of these restaurants are corporate owned, but the growth is due mostly to franchising. Prime has received many awards and honours for its work, including being named one of Canada's 50 Best Managed Companies for many consecutive years, the Pinnacle Award for Restaurant Company of the Year, the Ontario Restaurant News Restaurant of the Year award, as well as others.



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A company doesn't grow this quickly, or this well, without having the right information available at the right time. Managerial accounting is a tool to help managers sort through mountains of data, decide what data are necessary, and make the best decisions possible using the data. This text will introduce you to many of the concepts used by those who make managerial accounting decisions.

Managers use accounting information for much more than preparing annual financial statements. Managerial accounting (or management accounting) uses information in short-term decision making and long-term strategy formulation. In this chapter, we will introduce managerial accounting and discuss how managers use it to fulfill their duties. We will also explore how managerial accounting differs from financial accounting. Finally, we will discuss the regulatory and business environment in which today's managers and management accountants operate.



What Is Managerial Accounting?

As you will see throughout the book, managerial accounting is different from financial accounting. Financial accounting focuses on providing stockholders and creditors with the information they need to make investment and lending decisions. This information takes the form of financial statements: the balance sheet, income statement, statement of shareholders' equity, and statement of cash flows.

Managerial accounting focuses on providing internal management with the information it needs to run an organization efficiently and effectively. This information takes many forms, depending on management's needs.

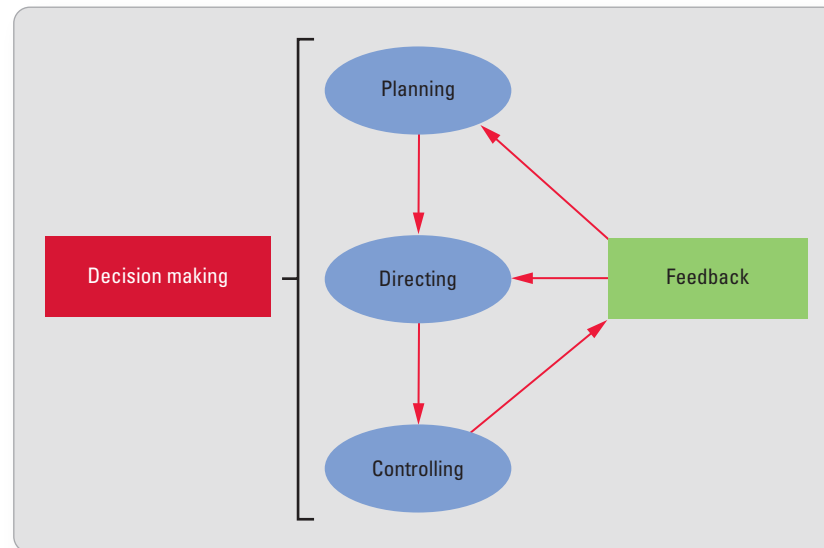
To understand the kind of information managers need, let us first look at their primary responsibilities.

1 Identify managers' four primary responsibilities.

Managers' Four Primary Responsibilities

Managerial accounting helps managers fulfill their four primary responsibilities, as shown in Exhibit 1-1: planning, directing, controlling, and decision making.

EXHIBIT 1-1 Managers' Four Primary Responsibilities



PROFESSIONAL
COMPETENCY

- Planning involves setting goals and objectives for the company and determining how to achieve them. For example, one of Prime's goals is to always use quality products and ingredients to keep customers coming back. One strategy for Prime to achieve this goal would be to establish good relationships with its suppliers. Prime's management team could incorporate new technology to improve communication between

the restaurants and their suppliers. Managerial accounting translates plans such as these into budgets—the quantitative expression of a plan. Management analyzes the budgets before proceeding to determine if its integration plans make financial sense.

- Directing means overseeing the company’s day-to-day operations. Management uses product cost reports, product sales information, and other managerial accounting reports to run daily business operations. Prime uses product sales data to determine which menu items are generating the most sales and then uses that information to adjust menus and marketing strategies.
- Controlling means evaluating the results of business operations against the plan and making adjustments to keep the company pressing toward its goals. Prime uses performance reports to compare each restaurant’s actual performance against the **budget**, and then it uses that *feedback* to take corrective actions if needed. If actual costs are higher or lower than planned, management may revise its plans or adjust operations. Perhaps the newly opened restaurants are not generating as much income as budgeted. As a result, management may decide to increase local advertising to increase sales.
- Management engages in decision making while it plans, directs, and controls operations. Prime must decide where to open new restaurants, which restaurants to refurbish, what prices to set for meals, what entrées to offer, and so forth. Because Prime is in business to generate profits for its owners and operators, management must consider the financial impact of each of these decisions. Managerial accounting gathers, summarizes, and reports cost and revenue data relevant to each of these decisions.

A Road Map: How Managerial Accounting Fits In


This book will show you how managerial accounting information helps managers fulfill their responsibilities. The rest of the text is organized around the following themes:

1. **Managerial Accounting Building Blocks** Chapter 1 helps you understand more about the management accounting profession and today’s business environment. Chapter 2 teaches you some of the language that is commonly used in managerial accounting. Just as musicians must know the notes of the musical scale, management accountants *and* managers must understand managerial accounting terms to effectively use managerial accounting information to run the business. With the building blocks presented and new terminology introduced, it is time to provide the tools for case study analysis. The Case Analysis Appendix is designed to guide you through the process of taking complex, integrated information, determining the critical problems in real-life scenarios, and solving these problems effectively. This appendix can be used throughout the rest of the textbook as you attempt to solve the cases presented with the chapters.
2. **Understanding Cost and Profit Patterns** Before Prime opened any restaurants, management determined how many meals each would have to serve just to break even—that is, just to cover costs. Management had to understand how costs behave before it could calculate a *break-even* point. Chapters 3 and 4 discuss how costs behave and how managers use cost behaviour knowledge to make good decisions and accurate forecasts.
3. **Determining Unit Cost** It is crucial for organizations like Prime to understand how much it costs to make its product or deliver its service in order to effectively set prices. Prime must calculate the cost of each item on the menu to set prices high enough to cover costs and generate a profit. This is tougher than it sounds. Prime’s cost to prepare each meal includes more than just the cost of the ingredients. Prime’s cost also includes the chefs’ and servers’ wages and benefits, restaurant lease payments, property taxes, utilities, business licenses, and so forth. Chapters 5, 6, and 7 discuss how businesses determine their product costs. Once management knows its product costs, it uses that information for decision making, planning, directing, and controlling. Then, Chapter 8 addresses common business decisions around costing and pricing, such as *outsourcing*. For example, should Prime outsource its fruit smoothies—that is, have another company make them? Many restaurants do.
4. **Planning and Control** Budgets are management’s primary tool for expressing its plans. Chapter 9 discusses the components of the *master budget* and the way a large company like Prime uses the budgeting process to implement its business goals and strategies. As part of this process management uses *budget variances*—the differences

between actual costs and the budget—to control operations. Chapter 10 shows how management uses variance analysis to determine how and where to adjust operations.

5. **Measurement and Evaluation.** It is important for organizations to have effective approaches to managing past and current performance, and to evaluate future decisions. For example, Prime must be able to examine how well the organization is doing in terms of internal operations and business processes; or if future investments are likely to bring positive returns to the company. Chapter 11 discusses other tools that management can use to determine whether individual segments of the company are reaching the company's goals. Chapter 12 shows you how managers decide whether to invest in new equipment, new locations, and new projects.

Differences Between Managerial Accounting and Financial Accounting

 2 Distinguish financial accounting from managerial accounting.

Prime's financial accounting system is geared toward producing annual and quarterly consolidated financial statements that will be used by potential franchisees and creditors to make investment and lending decisions. The financial statements objectively summarize the transactions that occurred between Prime and external parties during the previous year. However, managerial accounting information differs from financial accounting information in many respects. Exhibit 1-2 summarizes these differences.

Publicly accountable enterprises¹ must, as of January 1, 2011, use **International Financial Reporting Standards (IFRS)**, while private enterprises have an option. Prime is a privately held company; therefore, management can voluntarily select IFRS guidelines or **Accounting Standards for Private Enterprises (ASPE)**.² Prime's financial statements are useful to its potential franchisees and creditors, but they do not provide management with enough information to run the company effectively.

Prime's managerial accounting system is designed to provide its managers with the accounting information they need to plan, direct, control, and make decisions. No ASPE- or IFRS-type standards or audits are required for managerial accounting since this information will only be used internally. Prime's managers tailor the company's managerial accounting system to provide the information they need to help them make better decisions. Prime must weigh the benefits of the system (information that helps managers make decisions that increase profits) against the costs to develop and run the system. The costs and benefits of any particular managerial accounting system differ from one company to another. Different companies create different systems, so Prime's system will differ from Bombardier Inc.'s system.

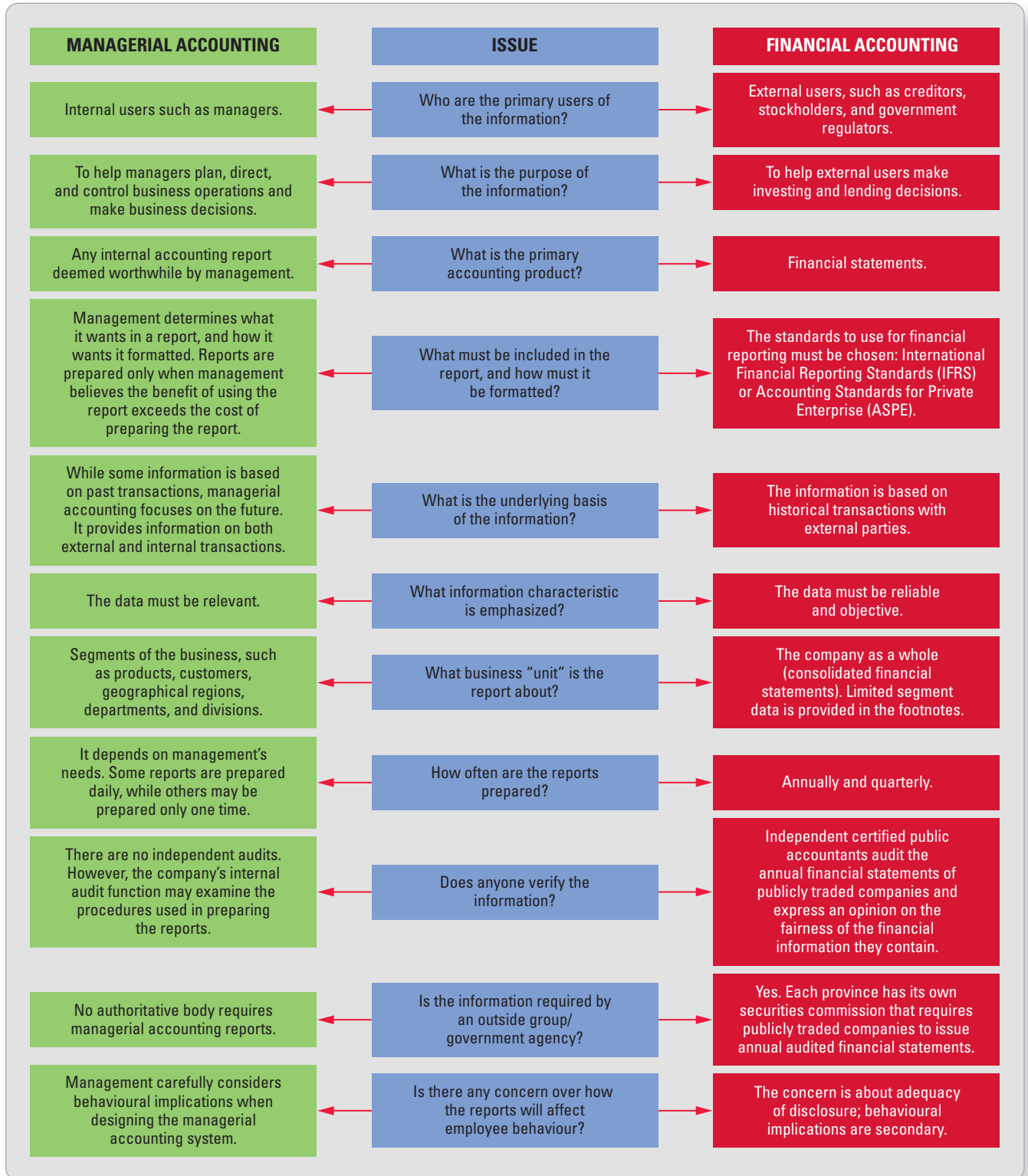
¹The following definitions have been adopted for the purposes of determining which Part of the CPA *Handbook* applies to a reporting entity:

- a. A **publicly accountable enterprise** is an entity, other than a not-for-profit organization or a government or other entity in the public sector, that:
 - i. has issued, or is in the process of issuing, debt or equity instruments that are, or will be, outstanding and traded in a public market (a domestic or foreign stock exchange, or an over-the-counter market, including local and regional markets); or
 - ii. holds assets in a fiduciary capacity for a broad group of outsiders as one of its primary businesses. Banks, credit unions, insurance companies, securities brokers/dealers, mutual funds, and investment banks typically meet the second criterion above. Other entities may also hold assets in a fiduciary capacity for a broad group of outsiders because they hold and manage financial resources entrusted to them by clients, customers, or members not involved in the management of the entity. However, if they do so for reasons incidental to a primary business (as, for example, may be the case for travel or real estate agents, cooperative enterprises requiring a nominal membership deposit, or sellers that receive payment in advance of delivery of the goods or services, such as utility companies), that does not make them publicly accountable.
- b. A private enterprise is a profit-oriented entity that is neither a publicly accountable enterprise nor an entity in the public sector.
- c. A not-for-profit organization is an entity, normally without transferable ownership interests, organized and operated exclusively for social, educational, professional, religious, health, charitable, or any other not-for-profit purpose. A not-for-profit organization's members, contributors and other resource providers do not, in such capacity, receive any financial return directly from the organization.
- d. A pension plan is any arrangement (contractual or otherwise) by which a program is established to provide retirement income to employees.

Source: Based on info from IFRS (<http://ifrsincanada.com/PAEdefinition.html>)

²ASPE guidelines were previously known as Canadian Generally Accepted Accounting Principles (GAAP).

EXHIBIT 1-2 Managerial Accounting versus Financial Accounting



In contrast to financial statements, most managerial accounting reports focus on the *future*, providing *relevant* information that helps managers make profitable business decisions. For example, before putting their plans into action, Prime's managers determine if their plans make sense by quantitatively expressing them in the form of budgets. Prime's managerial accounting reports may also plan for and reflect *internal* transactions, such as the daily movement of beverages and dry ingredients from central warehouses to individual restaurant locations.

To make good decisions, Prime's managers need information about smaller units of the company, not just the company as a whole. For example, management uses revenue and cost data on individual restaurants, geographical regions, and individual menu items to increase the company's profitability. Regional data help Prime's management decide where to open more restaurants. Sales and profit reports on individual menu items help management choose menu items and decide what items to offer on a seasonal basis. Rather than preparing these reports just once a year, companies prepare and revise managerial accounting reports as often as needed.

When designing the managerial accounting system, management must carefully consider how the system will affect employees' behaviour. Employees try to perform well on the parts of their jobs that the accounting system measures. If Prime restaurant managers were evaluated only on their ability to control costs, they may use cheaper ingredients or hire less experienced servers. Although these actions cut costs, they can hurt profits if the quality of the meals or service declines as a result.

What Role Do Management Accountants Play?

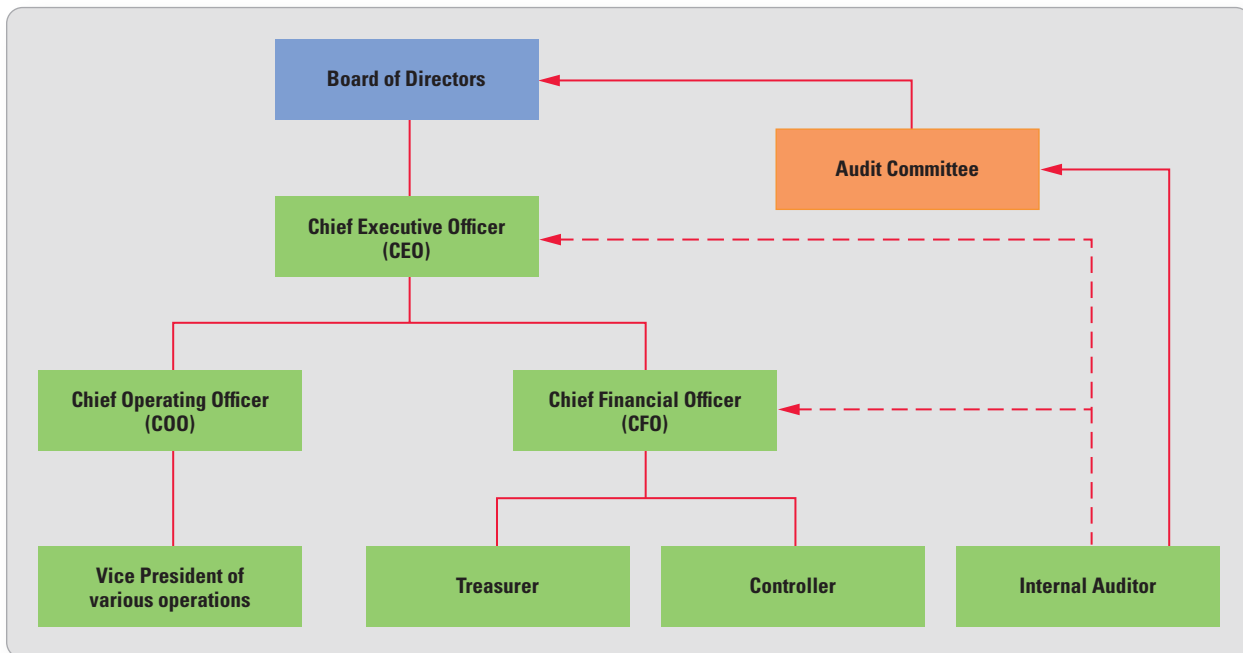
3 Describe organizational structure and the roles and skills required of management accountants within the organization.

Let us now look at how management accountants fit into the company's organizational structure, at how their roles are changing, and at the skills they need to successfully fill their roles. We will also look at their professional associations and their ethical standards.

Organizational Structure

Most corporations are too large to be governed directly by their shareholders. Therefore, shareholders elect a **board of directors** to oversee the company. Exhibit 1-3 shows a typical organizational structure with the green boxes representing employees of the firm and the orange and blue boxes representing nonemployees.

EXHIBIT 1-3 Typical Organizational Structure



Normally, an organization's board only meets periodically, so it hires a **chief executive officer (CEO)** to manage the company on a daily basis. The CEO hires other executives to run various aspects of the organization, including the **chief operating officer (COO)** and the **chief financial officer (CFO)**. The COO is responsible for the company's operations, such as research and development (R&D), production, and distribution. The CFO is responsible for all of the company's financial concerns. The **treasurer** and the **controller** report directly to the CFO. The treasurer is primarily responsible for raising capital

(through issuing stocks and bonds) and investing funds. The controller is usually responsible for general financial accounting, managerial accounting, and tax reporting.

The Toronto Stock Exchange (TSE/TSX) requires that the members of a board of directors for a listed company have sufficient experience in the industry and in governing public companies. It also requires that at least two board members are independent of the firm. However, for those organizations looking to go public in the United States, the New York Stock Exchange (NYSE) requires that listed companies have not only an external auditor but also an **internal audit function**. The role of the internal audit function is to ensure that the company's internal controls and risk management policies are functioning properly. The internal audit department reports directly to the **audit committee**, a subcommittee of the board of directors. The audit committee oversees the internal audit function as well as the annual audit of the financial statements by independent auditors. Both the internal audit department and the independent auditors report directly to the audit committee for one very important reason: to ensure that management will not intimidate them or bias their work. However, since the audit committee meets only periodically, it is not practical for the audit committee to manage the internal audit function on a day-to-day basis. Therefore, the internal audit function also reports to a senior executive, such as the CFO or CEO, for administrative matters.

When you look at the organizational chart pictured in Exhibit 1-3, where do you think management accountants work? It depends on the company. Management accountants have competencies in finance and accounting, strategic thinking, decision-making, and communication that make them valuable in managerial positions throughout the company. These same competencies also make managerial accountants valuable on **cross-functional teams**. Cross-functional teams consist of employees representing various functions of the company, such as R&D, design, production, marketing, distribution, and customer service. Cross-functional teams are effective because each member can address business decisions from a different viewpoint. These teams often report to various vice presidents of operations. Management accountants often take the leadership role in the teams. Lillie Cruikshank, the vice president of the Business Technology Centre at Sobeys Inc., describes her career as a management accountant as providing her with³

the business management skills that help me connect the dots between strategy and action. We're in a highly competitive environment. We have to control costs while providing our customer with the best food offering.

The Changing Roles of Management Accountants

Technology has changed the roles of management accountants. Management accountants no longer perform routine mechanical accounting tasks; computer programs perform those tasks. Yet management accountants are in more demand than ever. Company managers used to view management accountants as “scorekeepers” or “bean counters” because they spent most of their time recording historical transactions. Now, they view management accountants as internal consultants or business advisors.

Management accountants must still ensure that the company's financial records adequately capture economic events. They do this by helping design the information systems that capture and record transactions, and they make sure that the information system generates accurate data. Management accountants still need to know what transactions to record and how to record them, but they let technology do most of the routine work and use professional judgment to address non-routine transactions.

Freed from the routine mechanical work, management accountants spend more of their time planning, analyzing, and interpreting accounting data and providing decision support. Because their role is changing, management accountants rarely bear the job title “management accountant” anymore; they may be referred to as business management

Why is this important?

Management **accountants** act as internal business advisors. They provide the **financial** information and in-depth **analysis** that managers need to make good business **decisions**.

³Excerpt from Certified Management Accountant (CMA). www.creativeaccountants.org

support, financial advisors, business partners, analysts, or simply managers. Here is what two management accountants have said about their jobs:⁴

We are looked upon more as business advisors than just accountants, which has a lot to do with the additional analysis and forward-looking goals that we are setting. We spend more of our time analyzing and understanding our margins, our prices, and the markets in which we do business. People have a sense of purpose; they have a real sense of “I’m adding value to the company.” (Caterpillar, Inc.)

Accounting is changing. You are no longer sitting behind a desk just working on a computer, just crunching the numbers. You are actually getting to be a part of the day-to-day functions of the business. (Abbott Laboratories)

The Skills Required of Management Accountants

Because computers now do the routine “number crunching,” do management accountants need to know as much as they did 20 years ago? The fact is, management accountants now need to know *more!* They have to understand what information management needs and how to generate that information accurately. Therefore, management accountants must be able to communicate with the computer/IT system programmers to create an effective information system. Once the information system generates the data, management accountants interpret and analyze the raw data and turn them into *useful* information management can use.⁵

Twenty years ago we would say, “Here are the costs and you guys need to figure out what you want to do with them.” Now we are expected to say, “Here are the costs and this is why the costs are what they are, and this is how they compare to other things, and here are some suggestions where we could possibly improve.” (Caterpillar, Inc.)

Today’s management accountants need the following skills:⁶

- Solid knowledge of both financial and managerial accounting
- Problem-solving and decision-making skills
- Knowledge of how a business functions
- Ability to lead and to work on a team
- Professionalism and ethical standards
- Oral *and* written communication skills

The skills shown in Exhibit 1-4 are crucial to these management accountants:⁷

We’re making more presentations that are seen across the division. So you have to summarize the numbers...you have to have people in sales understand what those numbers mean. If you can’t communicate information to the individuals, then the information is never out there; it’s lost. So, your communication skills are very important. (Abbott Laboratories)

Usually when a nonfinancial person comes to you with financial questions, they don’t really ask the right things so that you can give them the correct answer. If they ask you for cost, well, you have to work with them and say, “Well, do you want total plant cost, a variable cost, or an accountable cost?” Then, “What is the reason for those costs?” Whatever they’re using this cost for determines what type of cost you will provide them with. (Caterpillar, Inc.)

Chapter 2 explains these cost terms. The point here is that management accountants need to have a solid understanding of managerial accounting, including how different types of costs are relevant to different situations. Additionally, they must be able to communicate that information to employees from different business functions.

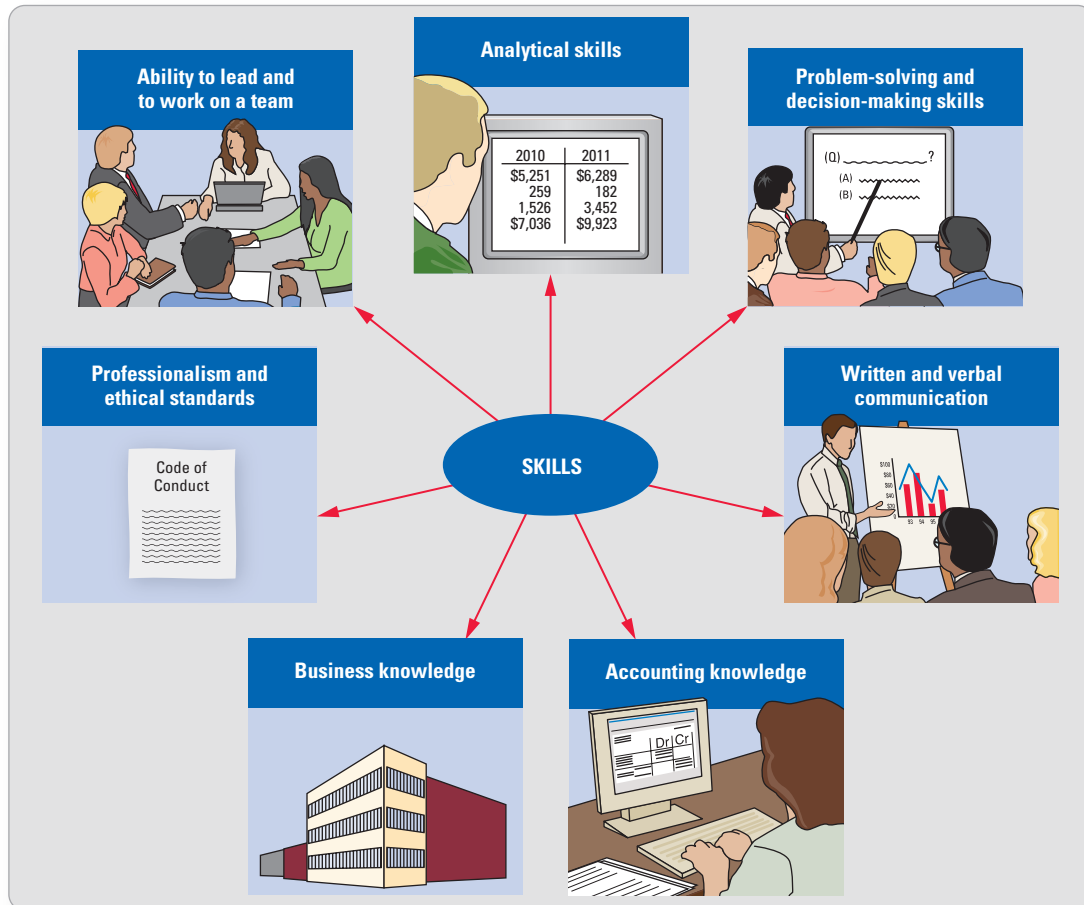
⁴IMA (Institute of Management Accountants, www.imanet.org). Adapted with permission. Adapted From *Counting More, Counting Less: The 1999 Practice Analysis of Management Accounting*, published by Institute of Management Accountants, © 1999.

⁵Institute of Management Accountants, *Counting More, Counting Less: The 1999 Practice Analysis of Management Accounting* © 1999.

⁶Gary Siegel and James Sorenson, *What Corporate America Wants in Entry-Level Accountants*, Institute of Management Accountants, Montvale, NJ, 1994.

⁷Institute of Management Accountants, *Counting More, Counting Less: The 1999 Practice Analysis of Management Accounting*.

EXHIBIT 1-4 The Skills Required for Management Accountants



The Profession of Accounting in Canada

Professional accountants in Canada are represented by the Chartered Professional Accountants of Canada (CPA Canada) in addition to provincial accounting associations (e.g., CPA Ontario). Prior to a multi-year unification process, which began in 2013, there were three professional accounting designations in Canada. The three legacy accounting bodies in Canada were:

- The Society of Management Accountants of Canada, which governed **Certified Management Accountants (CMAs)**;
- The Canadian Institute of Chartered Accountants, which regulated **Chartered Accountants (CAs)**; and
- The Certified General Accountants Association of Canada, which awarded members the **Certified General Accountant (CGA)** designation.

The **Chartered Professional Accountant (CPA)** designation (in French, comptable professionnel agréé) is the designation by which all new accountants will be known following the unification process and the completion of legislation in each of the provinces and territories of Canada. Individuals that held any of the legacy designations will retain their previous credential and also join the new designation (i.e., Bill Smith, CA, will become Bill Smith, CPA, CA).

One of the reasons the accounting profession in Canada pursued unification was to bring together the strength of training, knowledge, and practice into one accounting body to provide the greatest benefit to the public, to the profession, and to businesses in Canada. For management accountants, this means the diverse set of skills required (see Figure 1-4)

