GLOBAL EDITION

Horngren's Financial & Managerial Accounting

The Managerial Chapters

SEVENTH EDITION

Tracie L. Miller-Nobles • Brenda L. Mattison

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Financial & Managerial Accounting

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Tracie has received several teaching and professional awards including the AAA J. Michael and Mary Anne Cook Prize, TXCPA Outstanding Accounting Educator, TXCPA Rising Star, and the TXCPA Austin Chapter CPA of the Year. In her spare time, Tracie enjoys spending time with her husband, Kevin, his three kids, Caleb, Josh, and Meggie, her parents, Kipp and Sylvia, and sister, Michelle. She believes that camping and hiking is restorative and calming and that life was meant for good friends and great adventures. Tracie has been mentored by many wonderful colleagues and inspired by her students.

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In her spare time, Brenda enjoys reading and spending time with her family. She is also an active volunteer in the community, serving her church and other organizations.

Brief Contents

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Financial & Managerial Accounting . . . Expanding on Proven Success

What's New to the Edition

UPDATED! End of Chapter exercises and problems have been updated with new years and company financial information.

UPDATED! Chapter openers and Tying It All Together features have been updated with current company financial information.

NEW FEATURE ON DATA ANALYTICS! Data Analytics is becoming critically important in business—specifically in accounting. A new feature called Data Analytics in Accounting has been integrated throughout the narrative. In an increasingly competitive environment, having the ability to harness information to make sound business decisions is becoming crucial. Throughout the chapters, this feature highlights how real companies use Data Analytics to track inventory, monitor cash flow, forecast sales, and maximize profits. This feature also discusses emerging technologies, such as robotic process automation and artificial intelligence, and how they relate to businesses.

NEW DATA ANALYTICS PROJECTS! Each project contains a list of requirements, a dataset, a tutorial video, and instructions for using software such as Excel, Power BI, or Tableau to offer students hands-on practice in analyzing and reporting data. Using these tools, students learn how to extract and examine key information about a company related to its products, operations, and consumer buying habits. With this experience and knowledge, students are able to make smarter business decisions and are better prepared for the workforce.

NEW COVERAGE ON EMPLOYABILITY! The first courses in accounting are a great place to discuss the importance of accounting credentials in today's job market. Throughout the narrative, we highlight the role of accounting in businesses including the most relevant accounting credentials, as well as some new ones for students beginning their study of accounting. When discussing accounting in the business environment, in addition to the traditional career path (CPA), we also provide information about additional certifications available to accounting majors including Certified Management Accounting (CMA), Chartered Global Management Accountant (CGMA), and Certified Financial Planner (CFP).

Chapter 1: Introduction to Managerial Accounting

- Added discussion on professional certifications for management accountants – Certified Management Accountant (CMA) and Chartered Global Management Accountant (CGMA).
- Added discussion on advances in technology, including data analytics, robotic process automation, and artificial intelligence, and how they relate to the work management accountants perform.
- Updated information on the IMA Statement of Ethical Professional Practices (Exhibit M:1-4) to reflect changes made by IMA on July 1, 2017.
- Corrected formula for calculating Cost per Service.

Chapter 2: Job Order Costing

- Added new learning objective for calculating COGM and COGS for easier teaching, learning, and assessing activities.
- Added new exhibit illustrating difference between job order costing and process costing.
- Added Data Analytics in Accounting feature on tracking and reducing environmental incidents.

Chapter 3: Process Costing

- Updated Exhibit M:3-1, process costing vs. job order costing.

Chapter 4: Lean Management Systems: Activity-Based, Just-in-Time, and Quality Management Systems

- Changed name of chapter to emphasize lean management; concept interspersed throughout chapter.
- Added Exhibit M:4-1 to illustrate product costs for Smart Touch Learning—direct costs assigned to products, indirect costs allocated.

- Updated calculations for predetermined manufacturing overhead rates so that more complex methods show the premium model cost more than expected and standard model cost less than expected.
- Added Data Analytics in Accounting feature on quality management software to improve products and customers' experiences.

Chapter 5: Cost-Volume-Profit Analysis

- Added more visuals to help students understand concepts.
- Added Data Analytics in Accounting feature on sales trends.

Chapter 7: Master Budgets

- Changed Tying It All Together feature to discuss how companies are using zero-based budgeting.
- Added Data Analytics in Accounting feature on using data and technology to build profits.

Chapter 8: Flexible Budgets and Standard Cost Systems

- Updated direct materials calculations for direct materials cost variance and direct materials efficiency variance so that inputs do not equal outputs (previously 1 pound of wax per 1 batch of crayons; changed to 5 pounds of wax per 1 batch of crayons).

Solving Learning and Teaching Challenges

Chapter Openers

Chapter openers set up the concepts to be covered in the chapter using stories students can relate to. The implications of those concepts on a company's reporting and decision making processes are then discussed.

Tying It All Together

This feature ties together key concepts from the chapter using the company highlighted in the chapter opener. The in-chapter box feature presents scenarios and questions that the company could face and focuses on the decision-making process. The End of Chapter business case helps students synthesize the concepts of the chapter and reinforce critical thinking.

TYING IT ALL TOGETHER

In the chapter opener, we introduced **Best Buy Co., Inc.** Best Buy is a leading provider of technology products and services. Managers of retail companies like Best Buy have to make decisions about which products to sell, how much to charge customers for those products, and how to control costs so that the company earns a profit that is acceptable to its investors. In 2018, Best Buy incurred $776 million in advertising expenses for digital, print, and television advertisements, and promotional events (Notes to Consolidated Financial Statements, Note 1). The company had $42,151 million in sales in 2018. Therefore, its advertising costs were less than 2% of sales ($776 million / $42,151 million = 1.84%).

When advertising expenses are classified by behavior, are they variable, fixed, or mixed costs?

Advertising expenses are fixed costs because they do not vary in total when there is a change in sales volume.

When advertising expenses are classified by function, are they product or period costs?

Advertising expenses are selling costs, part of the Selling and Administrative Expenses, which are period costs.

What would most likely happen if Best Buy increased its advertising?

An increase in advertising will increase costs, which decreases profits. However, if increased digital and personalized advertising also results in increased sales, which will increase profits, then the cost may be justified.

How might a marketing manager use CVP analysis to make decisions about increasing or decreasing advertising costs?

The marketing manager will have to predict how increased advertising will affect sales volume and complete a CVP analysis to determine if the benefit resulting from the increased advertising will be greater than the cost. A decrease in advertising will most likely result in a decrease in sales. If customers are not as exposed to the Best Buy brand and are not as aware of special deals, they may shop elsewhere. Also, if Best Buy decreases its advertising, and its competitors do not, then customers may become more aware of the competitors and choose to shop there. As with the decision to increase advertising, the marketing manager will complete a CVP analysis to determine if the cost savings outweighs the profits lost due to the decrease in sales.

> Tying It All Together Case M:5-1

Before you begin this assignment, review the Tying It All Together feature in the chapter.

Best Buy Co., Inc. is a leading provider of technology products. Customers can shop at more than 1,500 stores or online. The company is also known for its Geek Squad for technology services. Suppose Best Buy is considering a particular HDTV for a major sales item for Black Friday, the day after Thanksgiving, known as one of the busiest shopping days of the year. Assume the HDTV has a regular sales price of $900, a cost of $500, and a Black Friday proposed discounted sales price of $650. Best Buy's 2018 Annual Report states that failure to effectively manage costs could have a material adverse effect on its profitability and that certain elements in its cost structure are largely fixed in nature and subject to multi-year contracts. Best Buy, like most companies, wishes to maintain price competitiveness while achieving acceptable levels of profitability. (Item 1A. Risk Factors.)

Requirements

1. Calculate the gross profit of the HDTV at the regular sales price and at the discounted sales price.
2. Assume that during the November/December holiday season last year, Best Buy sold an average of 150 of this particular HDTV per store. If the HDTVs are marked down to $650, how many would each store have to sell this year to make the same total gross profit as last year?
3. Relative to Sales Revenue, what type of costs would Best Buy have that are fixed? What type of costs would be variable?
4. Because Best Buy stated that its cost structure is largely fixed in nature, what might be the impact on operating income if sales decreased? Does having a cost structure that is largely fixed in nature increase the financial risk to a company? Why or why not?
5. In the Tying It All Together feature in the chapter, we looked at the cost of advertising. Is advertising a fixed or variable cost? If the company has a small margin of safety, how would increasing advertising costs affect Best Buy's operating income? What would be the effect of decreasing advertising costs?

Effect on the Accounting Equation

Next to every journal entry in both financial and managerial chapters, these illustrations help reinforce the connections between recording transactions and the effect those transactions have on the accounting equation.

Date	Accounts and Explanation	Debit	Credit
Trans. 8	Work-in-Process Inventory	67,600	
	Manufacturing Overhead		67,600
	***Allocated** overhead to WIP.*		

$$\left.\begin{array}{c}\underline{\mathrm{A}\uparrow}\\ \mathrm{WIP}\uparrow\end{array}\right\}=\left\{\begin{array}{ccc}\underline{\mathrm{L}} & + & \underline{\mathrm{E}\uparrow}\\ & & \mathrm{MOH}\downarrow\end{array}\right.$$

Instructor Tips & Tricks

Found throughout the text, these handwritten notes mimic the experience of having an experienced teacher walk a student through concepts on the "board." Many include mnemonic devices or examples to help students remember the rules of accounting.

Date	Accounts and Explanation	Debit	Credit
Trans. 9	Manufacturing Overhead	500	
	Cost of Goods Sold		500
	Adjusted MOH *for overallocated overhead.*		

A	=	L	+	E↑↓
				COGS↓ MOH↑

The adjusting entry for overallocated or underallocated manufacturing overhead is usually prepared at the end of the year. We are showing it here at the end of the month so we can illustrate all journal entries for a process costing system.

Common Questions, Answered

Our authors have spent years in the classroom answering students' questions and have found patterns in the concepts or rules that consistently confuse students. These commonly asked questions are located in the margin of the text next to where the answer or clarification can be found highlighted in purple text.

Why would the company use a subsidiary ledger for raw materials?

The raw materials subsidiary ledger includes a separate record for each type of material, so there is a separate ledger account (or record) for the batteries, processors, cases, and other materials used in producing the tablets. The subsidiary ledger records show the raw materials purchased (received), used in production (issued), and balance on hand (balance) at all times. **The use of a subsidiary ledger allows for better control of inventory because it helps track each type of material used in production.** Exhibit M:2-4 shows the subsidiary ledger of one type of battery that Smart Touch Learning uses. The balance of the Raw Materials Inventory account in the general ledger should always equal the sum of the balances in the raw materials subsidiary ledger.

Decision Boxes

This feature provides common questions and potential solutions business owners face. Students are asked to determine the course of action they would take based on concepts covered in the chapter and are then given potential solutions.

DECISIONS

What should the company charge?

Refer to the information for the service company example, Walsh Associates. Assume Jacob Walsh desires a profit equal to 50% of the firm's cost. Should Walsh consider only the direct costs when making pricing decisions? How much should the firm bill Client 367?

Solution

Walsh should consider more than just the direct labor costs when determining the amount to charge his clients. Client 367 incurred $700 in direct costs. At a 50% markup, Walsh would add $350 ($700 × 50%) and charge the client $1,050 ($700 + $350). That means Walsh would not cover the full cost of providing service to the client. The loss on the job would be $70 ($1,050 − $1,120). He left out the indirect costs. The markup should be 50% of the total cost, $560 ($1,120 × 50%). The amount charged to the client would be $1,680, which would generate a profit of $560 ($1,680 − $1,120).

Things You Should Know

Provides students with a brief review of each learning objective presented in a question and answer format.

> ### > Things You Should Know
>
> **1. How do costs behave when there is a change in volume?**
>
> - Total variable costs change in direct proportion to changes in volume, but the variable cost per unit remains unchanged.
> - Total fixed costs remain unchanged with changes in volume, but the fixed cost per unit changes inversely.
> - Mixed costs have a variable and fixed component.
> - Mixed costs can be separated into their variable and fixed components using the high-low method.
>
> **2. What is contribution margin, and how is it used to compute operating income?**
>
> - Contribution margin = Net sales revenue − Variable costs.
> - Contribution margin ratio = Contribution margin / Net sales revenue.
> - The traditional income statement separates costs by function: product costs and period costs.
> - The contribution margin income statement separates costs by behavior—fixed and variable—and highlights contribution margin.

Using Excel Problems

This End-of-Chapter problem introduces students to Excel to solve common accounting problems as they would in the business environment. Students will work from a template that will aid them in solving the problem related to accounting concepts taught in the chapter. Each chapter focuses on different Excel skills.

End-of-Chapter Continuing and Comprehensive Problems

> Continuing Problem

P-M:1-42

This is the first problem in a sequence of problems for Piedmont Computer Company, a manufacturer of personal computers and tablets. During its first month of manufacturing, Piedmont Computer Company incurred the following manufacturing costs:

Balances:	Beginning	Ending
Direct Materials	$ 10,500	$ 9,700
Work-in-Process Inventory	0	17,000
Finished Goods Inventory	0	31,000
Other information:		
Direct materials purchases		$ 16,000
Plant janitorial services		500
Sales salaries expense		10,000
Delivery expense		1,600
Sales revenue		1,100,000
Utilities for plant		16,000
Rent on plant		9,000
Customer service hotline costs		19,000
Direct labor		210,000

Prepare a schedule of cost of goods manufactured for Piedmont Computer Company for the month ended January 31, 2024.

Continuing Problem—Starts in Chapter M:1 and runs through the managerial chapters, emphasizing the relevant topics for that chapter using a continuous company.

Comprehensive Problem for Chapters M:1–M:5—Covers fundamental managerial accounting concepts: job order costing, process costing, cost management systems, and cost-volume-profit analysis.

Comprehensive Problem for Chapters M:7–M:9—Covers planning and control decisions for a manufacturing company, including a master budget, flexible budget, variance analysis, and performance evaluation.

Comprehensive Problem for Chapters M:10 and M:11—Covers decision making, both short-term business decisions and capital budgeting decisions.

Dear Colleague,

Thank you for taking the time to review *Horngren's Financial and Managerial Accounting*. We are excited to share our most recent changes and innovations with you as we expand on the proven success of the Horngren family of textbooks. Using what we learned from market feedback, our colleagues, and our students, we've designed this edition to focus on several goals.

This edition we again focus on ensuring that we produce a textbook that provides students with the content and resources they need to be successful. We continually update our pedagogy and content to represent the leading methods and topics necessary for student success. As authors, we reviewed each and every component to ensure the textbook, student resources, and instructor supplements are clear, consistent, and accurate. We value our ongoing conversations with our colleagues and our time engaged at professional conferences to confirm that our textbook is up-to-date and we are providing resources for professors to create an active and engaging classroom.

We are excited to share with you some new features and changes in this latest edition. First, we have added a new Data Analytics in Accounting feature that highlights how companies used data analytics in the business environment. We also offer accompanying Data Analytics projects in MyLab Accounting for your students to learn how to apply data analytics to accounting problems. All chapters went through a significant review with a focus of clarifying current coverage and expanding on content areas that needed more explanation.

We look forward to hearing from you and welcome your feedback and comments. Please do not hesitate to contact us at HorngrensAccounting@pearson.com or through our editor, Michael Trinchetto, Michael.Trinchetto@pearson.com.

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Brenda Mattison appreciates the loving support of her family, especially from her husband, Grant. She also appreciates the support she receives from so many colleagues who share their experiences and encouragement. This book is dedicated to her students, who work hard to achieve their dreams, are a constant reminder of what's really important in our lives, and inspire her to continuously seek ways to improve her craft of teaching.

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Introduction to Managerial Accounting

1

Which One Will They Buy?

Gerald is enjoying working at Starwood Campers, a recreational vehicle (RV) manufacturer, as a sales representative. He has met a lot of people who are looking at the various motor homes and camping trailers on display. He met one young couple who wants to purchase an RV to use during the summers as they explore the country while on break from their teaching jobs. He met a family looking for a way to spend quality time together on the weekends. He has also met a couple ready to retire, sell their home, and hit the road for a few years. The RV showroom has lots of models on display to meet all of these needs. There are many choices with different designs that make the small living spaces efficient and comfortable.

Gerald realizes that these potential customers are not just interested in comfort, however. They also want quality-built RVs that can be used for many years and travel many miles. As Gerald talks to the customers, he also shares information about the construction materials and manufacturing processes his company uses. He even invites interested parties to schedule a factory tour to get a better understanding of the manufacturing process.

Why Managerial Accounting?

Have you ever wondered how companies like **Winnebago Industries, Inc.** make their products? Winnebago is a leading manufacturer of recreational vehicles (RVs), including motorized and towable products. The company designs, develops, manufactures, and markets RVs, as well as supporting products and services. The RVs are sold to consumers through a dealer network. RV manufacturers begin with raw materials, such as steel, aluminum, and fiberglass, but motor homes include much more than the basic structure. If you purchase a Winnebago motor home, it may have a **Ford** engine, an **Amana** range, a **Sleep Number** mattress, and a **Sony** sound system. There are so many components that go into the finished product that managers at Winnebago have to keep detailed records of inventory used and other costs incurred to build the RVs. In 2018, Winnebago reported net revenues of $2,017 million, and cost of goods sold was $1,717 million. Cost of goods sold represented 85% of net revenues. How was the cost of goods sold calculated? Cost of goods sold includes not only the materials used in the manufacturing process, but also the costs of the labor of the men and women who built the RVs and the costs of operating the factory, such as utilities, insurance, and depreciation. Determining cost of goods sold for a manufacturer can be complicated. These companies use *managerial accounting* to help track costs and make decisions about production. Let's begin our study of managerial accounting to see how successful companies use accounting information to make good internal business decisions.

Chapter 1 Learning Objectives

1. Define managerial accounting and understand how it is used
2. Classify costs used in managerial accounting
3. Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured
4. Describe business trends affecting managerial accounting
5. Describe how managerial accounting is used in service and merchandising companies

WHY IS MANAGERIAL ACCOUNTING IMPORTANT?

Learning Objective 1
Define managerial accounting and understand how it is used

Managerial Accounting
The field of accounting that focuses on providing information for internal decision makers.

Financial Accounting
The field of accounting that focuses on providing information for external decision makers.

Managerial accounting focuses on providing information for internal decision makers. This type of accounting concentrates on both financial and nonfinancial information for managers and other business users, such as supervisors, foremen, and directors. **Financial accounting** focuses on providing information for external decision makers. While managers use financial accounting to report monetary transactions and prepare financial statements, managerial accounting helps managers make decisions needed to be successful. Individuals in management roles, such as department heads, division managers, chief executive officers, and vice presidents, rely on managerial accounting to help them plan, direct, control, and make decisions about the business. Exhibit M:1-1 illustrates the major differences between managerial and financial accounting.

Exhibit M:1-1 | **Financial Accounting Versus Managerial Accounting**

	Financial Accounting	Managerial Accounting
Primary users	External—investors, creditors, and government authorities	Internal—the company's managers and employees
Purpose of information	Help investors and creditors make investment and credit decisions	Help managers and employees plan, direct, and control operations
Focus and time dimension of the information	Relevant and faithfully representative information and focus on the past Example: 2023 actual performance reported in 2024	Relevant information and focus on the future Example: 2024 budget prepared in 2023
Rules and restrictions	Required to follow Generally Accepted Accounting Principles (GAAP); public companies required to be audited by an independent CPA	Not required to follow GAAP
Scope of information	Summary reports prepared primarily on the company as a whole, usually on a quarterly or annual basis	Detailed reports prepared on parts of the company (products, departments, territories), often on a daily or weekly basis
Behavioral	Concern about adequacy of disclosures; behavioral implications are secondary	Concern about how reports will affect employee behavior

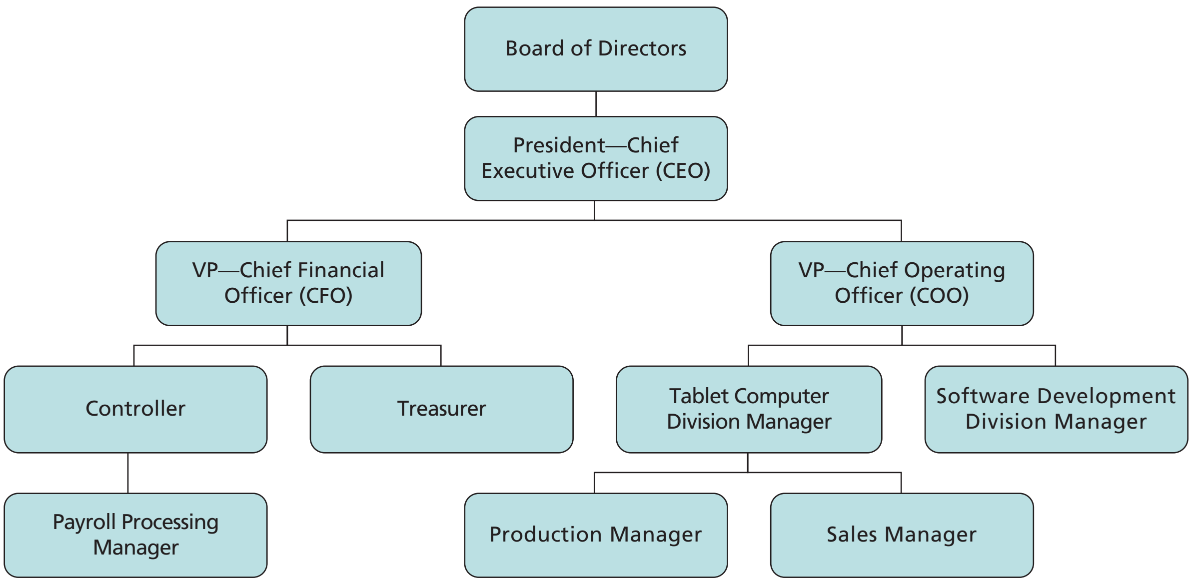
Managers' Role in the Organization

Managers occur in all different parts of a company's structure. Most companies structure their organization along departments or divisions. A company's **organizational chart** helps show the relationship between departments and divisions and the managers who are responsible for each section.

Organizational Chart
Shows the relationship between departments and divisions and managers responsible for each section.

Exhibit M:1-2 provides a partial organizational chart for Smart Touch Learning, a fictional company that we use to illustrate the concepts in each chapter. Smart Touch Learning began operations as a service company that specialized in providing online courses in accounting, economics, marketing, and management. The company later evolved into a merchandising company selling tablet computers that are preloaded with its e-learning software programs. The demand for Smart Touch Learning's tablets has grown because customers like the online courses offered as part of their tablet computer purchase. Smart Touch Learning has done well, but the competition is requiring Smart Touch Learning to once again look at its strategy. Smart Touch Learning has decided that in order to maintain its market share and to stay competitive, the company will begin manufacturing its own tablets rather than purchasing them. Smart Touch Learning believes that the company can manufacture a tablet at a cost lower than the current purchase cost and still offer customers the value they have come to expect. Later in this chapter, we will determine if this strategy did indeed pay off.

Exhibit M:1-2 | **Organizational Chart for Smart Touch Learning (Partial)**



The decision to change Smart Touch Learning's business model is made by the board of directors. Notice that the board of directors is listed at the top of Smart Touch Learning's organizational chart. The **board of directors** is elected by the stockholders, the owners of Smart Touch Learning, and is responsible for developing the strategic goals of the corporation. The board also selects the president—chief executive officer.

Board of Directors
Elected by the stockholders and responsible for developing the strategic goals of a corporation.

The President—**chief executive officer (CEO)** of Smart Touch Learning is ultimately responsible for developing a plan to meet the company's short- and long-term strategies as well as overseeing the implementation of the plans. The CEO is the liaison between the board of directors and the management of the company, and delegates the responsibility of implementing the plans to the vice presidents of the organization. The vice presidents of Smart Touch Learning are each responsible for a different area, such as

Chief Executive Officer (CEO)
Officer of a company that has ultimate responsibility for implementing the company's short- and long-term plans.

finance and operations. Each position in a company can be classified as either a line or staff position. **Line positions** are directly involved in providing goods or services to customers. Examples of line positions for Smart Touch Learning are vice president—chief operating officer (COO), tablet computer division manager, software development division manager, production manager, and sales manager. **Staff positions** support the line positions. Vice president—chief financial officer (CFO), controller, treasurer, and payroll processing manager are examples of staff positions.

Line Position
Job that is directly involved in providing goods or services to customers.

Staff Position
Job that provides support for line positions.

Managerial Accounting Functions

Business managers need information that will help them plan, direct, and control operations as they lead the business. This includes managing the company's plant, equipment, and human resources.

Planning
Choosing goals and deciding how to achieve them.

Strategic Planning
Involves developing long-term strategies to achieve a company's goals.

Operational Planning
Focuses on short-term actions dealing with a company's day-to-day operations.

- **Planning** means choosing goals and deciding how to achieve them. Planning requires managers to look to the future and establish goals for the business. A business's goals could be varied. For example, a common goal of all businesses is to increase operating income. Another goal might be to develop a new product or begin operations in a new territory. Planning can be classified as strategic or operational. **Strategic planning** involves developing long-term strategies to achieve a company's goals. Strategic plans often span 3 to 10 years. **Operational planning**, on the other hand, focuses on short-term actions dealing with a company's day-to-day operations. Operational plans are most often one year in length, but may also span only a week, a month, or a quarter.

Directing
Running the day-to-day operations of a business.

- **Directing** involves running the day-to-day operations of a business. Managers are responsible for coordinating the company's activities including purchasing, manufacturing, and selling. For example, a division manager must ensure that a company has enough materials on hand to meet the customers' demand. Managers are also responsible for motivating employees. A marketing manager's responsibilities might include coordinating the marketing plan and training sales representatives on the sale of a new product.

Controlling
Monitoring operations and keeping the company on track.

- **Controlling** is the process of monitoring day-to-day operations and keeping the company on track. Controlling involves comparing actual results to expected results. For example, managers can compare actual costs to expected costs to evaluate their performance. If actual costs fall below budgeted costs, that is usually good news. However, if actual costs exceed the expected costs, managers will evaluate why the results were different and if modifications or changes need to be made.

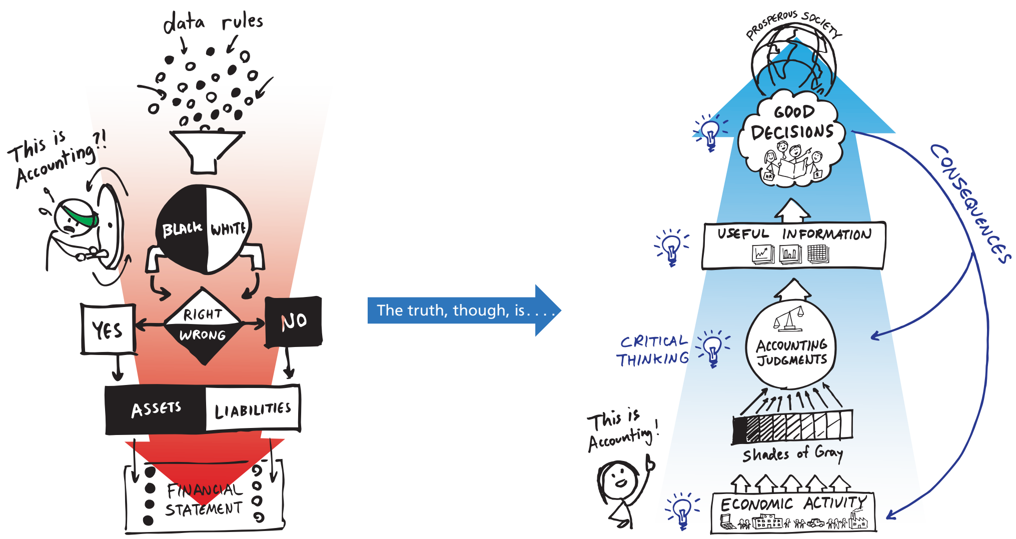
Businesses rely on managers to make decisions and managerial accountants assist by providing financial and nonfinancial data needed to make good decisions. Many accountants obtain professional certifications, which have education, experience, and examination requirements. Managerial accountants may become certified as a **Certified Management Accountant (CMA)**. CMAs have demonstrated specialized knowledge in budgeting and forecasting, planning and analysis, risk management and internal controls, and performance management. You can learn more about becoming a CMA on the Institute of Management Accountants (IMA) Web site (**http://www.imanet.org**). Another professional certification is the **Chartered Global Management Accountant (CGMA)**, which distinguishes accountants as professionals with advanced knowledge in finance, operations, strategy, and management. You can learn more about becoming a CGMA on their Web site (**https://www.cgma.org/aboutcgma.html**).

Certified Management Accountant (CMA)
Professional accountant who specializes in accounting and financial management knowledge.

Chartered Global Management Accountant (CGMA)
Professional accountant with advanced knowledge in finance, operations, strategy, and management.

Decision making is a part of all three functions (planning, directing, and controlling) and good decision making results in a prosperous company. Accounting plays an important role in a manager's decision making. The Pathways Vision Model (see Exhibit M:1-3) provides a visual way to understand the role of managerial accounting in making good decisions. Managers review information about economic activities and then use critical thinking and accounting judgment to create useful information. This useful information helps managers make good decisions that in turn have an impact on society and future economic activity, thus creating a circular flow of cause and effect.

Exhibit M:1-3 | **Pathways Vision Model**



We tend to think of accountants as boring and dry.

Accountants are instrumental in helping to create a prosperous society.

This work is by The Pathways Commission. The Pathways Vision Model: AI artwork: AAA Commons. American Accounting Association.

Ethical Standards of Managers

Managers often face ethical challenges. The Institute of Management Accountants (IMA) has developed standards that managerial accountants are expected to uphold when faced with ethical challenges. The IMA standards remind us that society expects professional accountants to exhibit the highest level of ethical behavior. An excerpt from the IMA's Statement of Ethical Professional Practice, effective July 1, 2017, appears in Exhibit M:1-4 (on the next page). These standards require managerial accountants to do the following:

- Maintain their professional competence.
- Preserve the confidentiality of the information they handle.
- Act with integrity and credibility.

To resolve ethical dilemmas, the IMA suggests following organizationally established policies. If the policies do not result in a resolution, the IMA recommends discussing the ethical situation with: (1) an immediate supervisor; (2) an objective adviser; and, if necessary, (3) an attorney.

Exhibit M:1-4 | **IMA Statement of Ethical Professional Practice (Excerpt)**

IMA's overarching principles include: Honesty, Fairness, Objectivity, and Responsibility. The standards of ethical practice include the following:

I. COMPETENCE

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

II. CONFIDENTIALITY

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

III. INTEGRITY

1. Mitigate actual conflicts of interest. Regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
2. Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
3. Abstain from engaging in or supporting any activity that might discredit the profession.
4. Contribute to a positive ethical culture and place integrity of the profession above personal interests.

IV. CREDIBILITY

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

Source: Institute of Management Accounts. (2017). *IMA statement of ethical professional practice*. Retrieved from https://www.imanet.org/-/media/635508439d8848b89e544a4ac2888f88.ashx?la=en

ETHICS

Where do you draw the line?

As the staff accountant of Casey Computer Co., Sam Butler is aware of the company's weak financial condition. The company is close to signing a lucrative contract that should ensure its future. The controller, who is Sam's supervisor, states that the company *must* report a profit this year. He suggests: "Two customers have placed orders that are scheduled to be shipped on January 3, when production of those orders is completed. Let's record the goods as finished and bill the customer on December 31 so we can show the profit from those orders in the current year."

What should Sam do? What would you do?

Solution

Sam could consider working with the production manager to get the orders completed and shipped in December. The orders could then be recorded in December, and the profits would be reflected in the current year's financial statements. However, if that is not possible, Sam should convince the controller that the income manipulation is not ethical and violates the revenue recognition principle—and that the company should not record these transactions in December. If Sam is unable to convince the controller, he has an obligation to report the situation to the controller's supervisor.

Try It!

Identify the following characteristics as primarily related to financial accounting (FA) or managerial accounting (MA):

1. Helps creditors make lending decisions.
2. Helps in planning, directing, and controlling operations.
3. Is not required to follow GAAP.
4. Has a focus on the future.
5. Summary reports prepared quarterly or annually.

Check your answers online in MyLab Accounting or at http://www.pearsonglobaleditions.com/Horngren.

For more practice, see Short Exercises S-M:1-1 and S-M:1-2. MyLab Accounting

HOW ARE COSTS CLASSIFIED?

Learning Objective 2
Classify costs used in managerial accounting

How costs are classified depends on the type of business the company engages in. Businesses are generally classified as service, merchandising, or manufacturing companies. **Service companies** sell their time, skills, and knowledge. Examples of service companies include accounting firms such as Ernst & Young and law offices such as Baker & McKenzie. **Merchandising companies** resell products they buy from suppliers. Merchandisers keep an inventory of products, and managers are accountable for the purchase, storage, and sale of the products. Companies such as Home Depot and Lowe's are examples of merchandising companies.

Service Company
A company that sells services—time, skills, and knowledge—instead of products.

Merchandising Company
A company that resells products previously bought from suppliers.

Manufacturing Companies

Unlike service and merchandising companies, **manufacturing companies** use labor, equipment, supplies, and facilities to convert raw materials into finished products. Managers in manufacturing companies must use these resources to create a product that customers want at a price customers are willing to pay. Honda Motor Co., Ltd., The Coca-Cola Company, and The Boeing Company are all examples of manufacturing companies.

Manufacturing Company
A company that uses labor, equipment, supplies, and facilities to convert raw materials into finished products.

In contrast with service and merchandising companies, manufacturing companies track costs using three kinds of inventory:

1. **Raw Materials Inventory (RM)** includes materials used to make a product. For example, Smart Touch Learning's raw materials include the processor, screen, tablet case, and glue.
2. **Work-in-Process Inventory (WIP)** includes goods that are in the manufacturing process but are not yet complete. Some production activities have taken place that transformed the materials, but the product is not yet finished and ready for sale. Smart Touch Learning's Work-in-Process Inventory could include tablets that only include the electronic components but not the screen.
3. **Finished Goods Inventory (FG)** includes completed goods that have not yet been sold. Finished goods are the products that the manufacturer sells, such as Smart Touch Learning's finished tablet.

Raw Materials Inventory (RM)
Materials converted through the manufacturing process into a finished product.

Work-in-Process Inventory (WIP)
Goods that have been started in the manufacturing process but are not yet complete.

Finished Goods Inventory (FG)
Completed goods that have not yet been sold.

Direct and Indirect Costs

Direct Cost
Cost that can be easily and cost-effectively traced to a cost object.

Cost Object
Anything for which managers want a separate measurement of cost.

Manufacturing companies classify costs in many different ways. For example, costs can be classified as direct or indirect. A **direct cost** is a cost that can be easily and cost-effectively traced to a cost object. A **cost object** is anything for which managers want a separate measurement of cost and may be a product, department, sales territory, or activity. For example, the cost object for Smart Touch Learning would be the tablet, and a direct cost of the tablet would be the cost of materials used, such as the processor, screen, and case.

> *Don't confuse prices with costs. Price (or sales price) is the amount the company charges the customer for the goods or services provided. Cost is the amount the company incurs to acquire the goods or services. If a company purchases an item for $4 and sells it for $10, the cost is $4 and the price is $10.*

Indirect Cost
Cost that cannot be easily or cost-effectively traced to a cost object.

Costs that cannot be easily or cost-effectively traced directly to a cost object are **indirect costs**. For Smart Touch Learning, indirect costs might include the salary of the production supervisor. Although the production supervisor is involved in the factory, he or she is not directly responsible for producing the product.

Manufacturing Costs

In a manufacturing company, such as Smart Touch Learning, costs can be classified into three categories.

Direct Materials (DM)
The cost of raw materials that are converted into the finished product and are easily traced to the product.

Direct Labor (DL)
The cost of wages and salaries of employees who convert raw materials into finished products.

Manufacturing Overhead (MOH)
Manufacturing costs that cannot be easily and cost-effectively traced to a cost object. Includes all manufacturing costs except direct materials and direct labor.

1. **Direct materials (DM)** are the cost of raw materials that are converted into the finished product and are easily traced to the product. The cost of such materials are considered direct materials. Smart Touch Learning's direct materials would include the processor, the screen, and the tablet case.
2. **Direct labor (DL)** is the cost of wages and salaries of employees who convert the raw materials into the finished product. Direct labor is also a direct cost that can be easily traced to the finished product. Direct labor for Smart Touch Learning would include the wages of the employees who assemble the tablets.
3. **Manufacturing overhead (MOH)** refers to indirect manufacturing costs that cannot be easily traced to specific products. It includes all manufacturing costs other than direct materials and direct labor. These costs are created by all of the supporting production activities, including storing materials, setting up machines, and cleaning the work areas. Examples include costs of indirect materials, manufacturing factory managers' salaries and other indirect labor, repair and maintenance costs, and depreciation on manufacturing buildings and equipment. Other examples include the following costs for the factory: utilities, rent, insurance, and property taxes. Manufacturing overhead is also called *factory overhead* or *indirect manufacturing costs*.

Let's look at two of the components of manufacturing overhead more closely. It is important to be able to distinguish between direct and indirect materials and direct and indirect labor.

- **Indirect materials** are the cost of raw materials that are difficult or not cost-effective to trace directly to the product. For Smart Touch Learning, it may be the cost of glue used in assembling the tablets. The cost of tracing the drops of glue used on each tablet and then determining the cost of those drops exceeds the benefit of having this information.

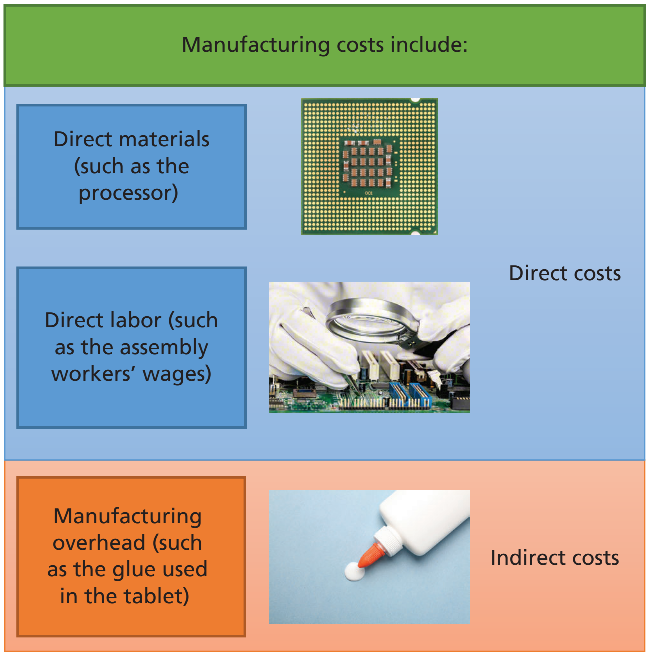
Indirect Materials
The cost of raw materials that cannot be conveniently traced directly to specific finished products or are not large enough to justify tracing to the specific product.

- **Indirect labor** includes the cost of wages and salaries in the factory for persons not directly producing the product. Examples include production supervisors, factory janitors, workers who repair factory equipment, and factory groundskeepers.

Indirect Labor
The cost of wages and salaries in the factory for persons not directly producing the product and cannot be conveniently traced directly to specific finished products or are not large enough to justify tracing to the specific product.

Exhibit M:1-5 illustrates the three different manufacturing costs and the difference between direct and indirect costs.

Exhibit M:1-5 | Manufacturing Costs



Prime and Conversion Costs

The purpose of managerial accounting is to provide useful information to managers. To make cost information more useful, manufacturing costs are sometimes combined in different ways, depending on the managers' needs.

Prime costs combine the direct costs: direct materials and direct labor. In a manufacturing process that is labor-intensive, the direct costs are the *primary* costs. *Labor-intensive* means people do most of the work, not machines. In that type of environment, managers may want to concentrate on these direct, or prime, costs. To be profitable, it is vital for the company to control these costs.

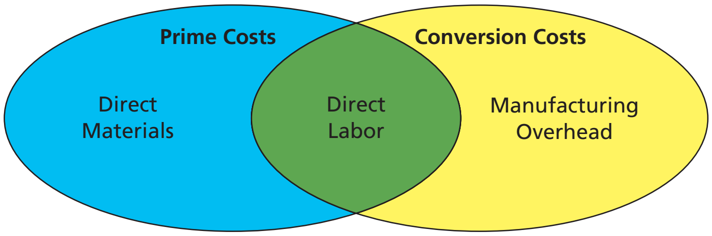
Prime Costs
The direct costs of the manufacturing process: Direct materials plus direct labor.

Conversion costs combine direct labor with manufacturing overhead. These are the costs to *convert* the direct materials into the finished product. In a manufacturing process that is machine-intensive, the cost of direct labor is minimal because machines do most of the work. Employees primarily set up and oversee the machine production. Overhead costs, however, can be substantial, including the cost of utilities and depreciation on the machinery. In that type of environment, managers may want to focus on the total conversion cost rather than tracking direct labor and manufacturing overhead separately.

Conversion Costs
The cost to convert direct materials into finished goods: Direct labor plus manufacturing overhead.

Exhibit M:1-6 (on the next page) illustrates the relationship between prime costs and conversion costs. Notice that direct labor is considered both a prime cost and a conversion cost.

Exhibit M:1-6 | **Prime and Conversion Costs**



Product and Period Costs

Product Cost
The cost of purchasing or making a product. The cost is recorded as an asset (inventory) and then expensed (Cost of Goods Sold) when the product is sold.

Period Cost
Operating cost that is expensed in the accounting period in which it is incurred.

Another way costs can be classified is as product or period costs. This characterization is required when preparing financial statements. **Product costs** include the costs of purchasing or making a product. Direct materials, direct labor, and manufacturing overhead are all examples of product costs. Product costs are recorded as assets in inventory accounts on the balance sheet when they are incurred. The cost does not become an expense until the company has sold the inventory. At that time, the cost is reported as Cost of Goods Sold on the income statement.

Period costs, on the other hand, are non-manufacturing costs. Period costs are selling and administrative expenses and other expenses such as taxes and interest. These costs are matched with the revenue of a specific time period and expensed in the same accounting period. Examples of period costs might include the salaries and wages of the accounting staff, rent for the administrative building, sales commissions paid to sales representatives, or utilities paid for the marketing office. Exhibit M:1-7 illustrates the difference between product and period costs and Exhibit M:1-8 provides some examples of Smart Touch Learning's period and product costs.

Exhibit M:1-7 | **Period Versus Product Costs**

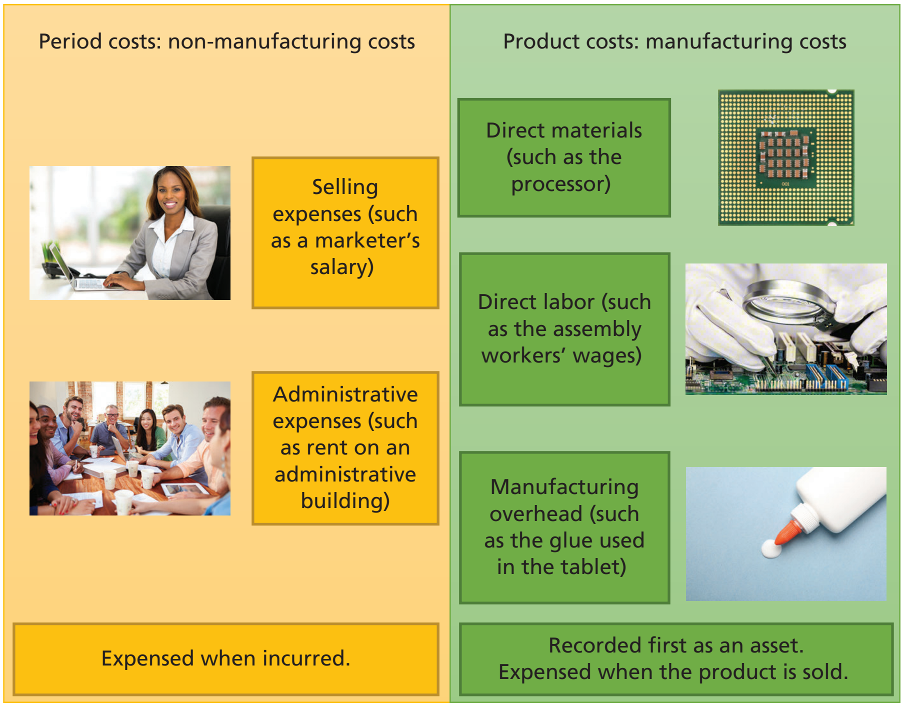


Exhibit M:1-8 | **Period and Product Costs for Smart Touch Learning**

Cost Incurred	Period Costs	Product Costs		
	Selling and Administrative	Direct Materials	Direct Labor	Manufacturing Overhead
Depreciation on manufacturing equipment				X
Depreciation on office equipment	X			
Advertising	X			
Property taxes and insurance on office	X			
Property taxes and insurance on factory				X
Production supervisor's salary				X
CEO's salary	X			
Wages for assembly line workers			X	
Batteries, processors, and other materials used in making tablets		X		
Manufacturing supplies				X
Freight costs on purchase of materials		X		
Delivery expense	X			

Overhead costs can be confusing. For example, for a service or merchandising company, the cost of rent is a period cost and is classified as a selling and administrative expense. For a manufacturing company, you must consider the reason for the cost. If the rent is for the corporate office, it is still a period cost. However, if the rent is for the factory, then it is a product cost because it is a cost incurred in the manufacturing process. Because the rent is neither direct materials nor direct labor, it is classified as manufacturing overhead.

Try It!

Identify each cost as a period cost or a product cost. If it is a product cost, further indicate if the cost is direct materials, direct labor, or manufacturing overhead. Then determine if the product cost is a prime cost and/or a conversion cost.

6. Wages of assembly line workers for a factory
7. Wages of the office receptionist in an administrative office
8. Property taxes on the factory
9. Sugar and flour used to make cookies
10. Salary of the factory maintenance supervisor
11. Salary of the sales manager

Check your answers online in MyLab Accounting or at http://www.pearsonglobaleditions.com/Horngren.

For more practice, see Short Exercises S-M:1-3 through S-M:1-5. MyLab Accounting

HOW DO MANUFACTURING COMPANIES PREPARE FINANCIAL STATEMENTS?

Learning Objective 3
Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured

In financial accounting, you learned about the financial statements for service and merchandising companies. In this chapter, we will focus on how the financial statements are different for manufacturing companies.

Balance Sheet

Let's first begin by concentrating on the balance sheet. Service companies sell their time, skills, and knowledge and therefore carry no inventories on their balance sheet. Merchandising companies resell products they buy from suppliers and record the cost of inventory purchased as an asset, Merchandise Inventory, on their balance sheet. As you learned earlier, manufacturing companies keep track of costs using three inventory accounts, Raw Materials Inventory, Work-in-Process Inventory, and Finished Goods Inventory. On a manufacturing company's balance sheet the three inventory accounts will be listed in the asset section.

Exhibit M:1-9 shows a comparison of balance sheets for service, merchandising, and manufacturing companies. Notice the accounts highlighted in blue, which illustrate the different kinds of inventory accounts used by various types of companies.

Exhibit M:1-9 | Balance Sheet Comparison

Service Company Balance Sheet (Partial) December 31, 2025			**Merchandising Company** Balance Sheet (Partial) December 31, 2025			**Manufacturing Company** Balance Sheet (Partial) December 31, 2025		
Assets			**Assets**			**Assets**		
Cash	$ 10,500		Cash	$ 10,500		Cash	$ 10,500	
Accounts Receivable	8,750		Accounts Receivable	8,750		Accounts Receivable	8,750	
Equipment	60,000		Merchandise Inventory	2,200		Raw Materials Inventory	1,500	
			Equipment	60,000		Work-in-Process Inventory	800	
						Finished Goods Inventory	2,200	
						Equipment	60,000	
Total Assets		**$ 79,250**	Total Assets		**$ 81,450**	Total Assets		**$ 83,750**

Income Statement

On the income statement, because service companies do not have any product costs, they only record period costs such as salaries expense and rent expense. In contrast with service companies, merchandisers' income statements usually report Cost of Goods Sold as the major expense. Cost of Goods Sold represents the business's cost of the merchandise inventory sold. In a manufacturing company, as in a merchandising company, Cost of Goods Sold is usually the largest expense. However, because a manufacturer makes the product it sells, the calculation of cost of goods sold is different. Exhibit M:1-10 illustrates the difference between a merchandising company's calculation of cost of goods sold and a manufacturer's calculation of cost of goods sold. Notice that the differences are highlighted in blue.