chapter

15(1)

Introduction to Managerial Accounting

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

OPENING COMMENTS

Chapter 15(1) introduces students to managerial accounting and the manufacturing process. Students will learn how managerial accounting is used in the management decision process. They will also be exposed to the terminology used to describe costs related to manufacturing.

Students learn how costs flow through a manufacturing system.

After studying the chapter, your students should be able to:

1. Describe managerial accounting including its differences with financial accounting, its place in the organization, and its uses.

2. Describe and illustrate the nature of manufacturing operations, including different types and classifications of costs.

3. Describe sustainable business activities and eco-efficiency measures.

4. Describe and illustrate financial statements for a manufacturing business, including the balance sheet, statement of cost of goods manufactured, and income statement

ADM: Describe and measure utilization in evaluating performance for a service company.

KEY TERMS

continuous process improvement

controller

controlling

conversion costs

cost

cost object

cost of goods manufactured

cost of goods sold

decision making

direct costs

direct labor cost

direct materials cost

directing

eco-efficiency measures

factory burden

factory overhead cost

feedback

financial accounting

finished goods inventory

indirect costs

line department

management by exception

management process

managerial accounting

manufacturing overhead

materials inventory

objectives (goals)

operational planning

period costs

planning

prime costs

product costs

staff department

statement of cost of goods manufactured

strategic planning

strategies

sustainability

Sustainability Accounting Standards Board (SASB)

utilization

work in process inventory

STUDENT FAQS

 Why is conversion cost considered to be direct labor and factory overhead?

 Why is direct and indirect cost so important to understand?

 Why is product and period cost so important to understand?

 Why do we have to maintain all these costs for each specific job?

* Why is direct labor both a prime and a conversion cost? Isn’t that double accounting?

OBJECTIVE 1

Describe managerial accounting, including its differences with financial accounting, its place in the organizations, and its uses.

SYNOPSIS

Managerial accounting provides information to internal users. Managers use this information to control, plan, and evaluate the performance of the business. Managerial accounting information includes historical data to evaluate performance and estimated data to assist in making future decisions. Financial accounting is reported at fixed intervals and provides information to assist external users in making decisions. These external users include shareholders, creditors, government agencies, and the general public.

Departments in a company can be either line or staff departments. Line departments are directly involved in providing goods and services to the company’s customers. Managers in these line positions are responsible for their department’s manufacturing and selling of goods. Staff departments provide services, assistance, and advice to other departments. The controller is the chief management accountant; accounting touches all phases of a company’s operations.

A manager uses planning in developing the company’s objectives and then takes actions to implement these plans. Operational planning develops short-term actions for day-to-day operations. Strategic planning develops long-term actions to achieve goals involving objectives for the next 5 to 10 years. Managers direct the day-to-day operations of the business. Monitoring operating results and comparing these results with the expected results is called controlling. Feedback allows managers to investigate problems and take remedial actions. It may also lead to adjustment of future plans. Feedback is also used to improve employees, business processes, and products in a continuous process improvement. Inherent in all of these processes is decision making in which managers continually decide among alternative actions.

*Key Terms and Definitions*

* **Continuous Process Improvement**—A management philosophy of continually improving employees, business processes, and product.
* **Controller—**The chief management accountant of a division or other segment of a business.
* **Controlling**—A phase in the management process that consists of monitoring the operating results of implemented plans and comparing the actual results with the expected results.
* **Decision Making**—A component inherent in the management processes of planning, directing, controlling, and improving where management must continually decide among alternative actions.
* **Directing**—The process by which managers, given their assigned level of responsibilities, run day-to-day operations.
* **Feedback—**Measures provided to operational employees or managers on the performance of subunits of the organization. These measures allow management to isolate areas for further investigation and possible remedial action.
* **Financial Accounting**—The branch of accounting that is concerned with recording transactions using generally accepted accounting principles (GAAP) for a business or other economic unit and with a periodic preparation of various statements from such records.
* **Line Department**—A unit that is directly involved in the basic objectives of an organization.
* **Management by Exception**—The philosophy of managing which involves monitoring the operating results of implemented plans and comparing the expected results with the actual results. This feedback allows management to isolate significant variations for further investigation and possible remedial action.
* **Management (or Managerial) Accounting**—The branch of accounting that uses both historical and estimated data in providing information that management uses in conducting daily operations, in planning future operations, and in developing overall business strategies.
* **Management Process**—The five basic management functions of (1) planning, (2) directing, (3) controlling, (4) improving, and (5) decision making.
* **Objectives (Goals)**—Developed in the planning stage, these reflect the direction and desired outcomes of certain courses of action.
* **Operational Planning**—The development of short-term plans to achieve goals identified in a business’s strategic plan. Sometimes called tactical planning.
* **Planning**—A phase of the management process whereby objectives are outlined and courses of action determined.
* **Staff Department**—A unit that provides services, assistance, and advice to the departments with line or other staff responsibilities.
* **Strategic Planning**—The development of a long-range course of action to achieve business goals.
* **Strategies**—The means by which business goals and objectives will be achieved.

*Relevant Check Up Corner and Exhibits*

* Exhibit 1—Financial Accounting and Managerial Accounting
* Exhibit 2—Partial Organization Chart for Callaway Golf Company
* Exhibit 3—The Management Process
* Check Up Corner 15-1 – Management Process

SUGGESTED APPROACH—Differences in Financial and Managerial Accounting

Use Transparency Master (TM) 15(1) -1 to review the basic differences between financial and managerial accounting. It is helpful to point out that financial accounting stresses stewardship of assets (a historical orientation), while managerial accounting stresses the best alternative uses of assets (a future orientation).

CLASS DISCUSSION—Managerial Accounting Reports

Ask students whether they receive or prepare any financial reports in their jobs, other than the financial accounting reports discussed in previous chapters. Ask them to describe these reports and comment on how management uses them to run the business.

WRITING EXERCISE—Managerial Accounting

Instruct your students to write an answer to the following question [TM 15(1)-2]:

Why is it permissible to violate generally accepted accounting principles when preparing reports used strictly by company management?

**Possible response**: Since these reports are for internal use only, they should not provide any influence to investors about decisions to invest in the company. These reports are for management to aid in the decision-making process. It should be clear to all users that these reports may not follow GAAP.

CLASS DISCUSSION—Management Accountants

The role of the management accountant is to provide management with information needed to plan and control the operations of a business. The Group Learning Activity below will ask your students to assume the role of a manager in a variety of business situations. In this role, they must request information from their company’s management accounting department to assist them in their management functions. This exercise allows students to experience how management accountants participate in the management process.

This section also introduces your students to the controller’s position in the typical organizational chart. This is an opportune time to expose students to the Certificate in Management Accounting (CMA) program. TM 15(1)-3 outlines the requirements for obtaining this credential. The following website is also helpful in determining the CMA requirements: www.imanet.org/cma-certification.

GROUP LEARNING ACTIVITY—Managerial Accounting in the Management Process

Divide the class into small groups. Handouts 15(1)-1 through 15(1)-5 each presents a manager who needs information that can be supplied by managerial accounting. Assign each of the groups one of these scenarios. Ask them to read the scenario and list the information that the manager should request from the management accounting department.

**Possible responses:**

**Handout 15(1)-1:** One possible explanation is a recent change in supplier. If this is the case, the accounting department can supply cost per yard of material from old supplier verses new supplier. They can then factor in the increased scrap cost to determine if overall costs are more or less than the previous supplier. It could be that the new supplier is cheaper per yard up front, but increased scrap cost results in overall higher cost.

**Handout 15(1)-2:** Credit cards and ATM cards come with a processing fee that cash does not require. This additional expense will cut into the bottom line. However, increased cost might be overcome with increased sales to customers who will spend more with the convenience of shopping with a card. Accounting can provide an analysis of processing fees to determine the level to which sales must increase in order to break even.

**Handout 15(1)-3:** As the new sales manager focusing on Buddy at this time, I would want to know the following information for the company and for each sales representative individually:

Total sales  
Sales returns  
Uncollectable accounts  
Selling expenses

Focusing on uncollectable accounts, sales returns as a percentage of total sales, I would want to examine if Buddy’s numbers are significantly different from the company and how these ratios look compared to other high performing sales reps.

**Handout 15(1)-4:** The manager will need to know what costs are included in the overhead reporting. Additionally, it would be beneficial to have historical data on these costs, as well as production numbers for these same time periods. It would also be beneficial to have sales projections for the quarter in question to match demand with cost.

**Handout 15(1)-5:** The manager will need to know what materials go into the manufacturing process, the average amount used in each unit, the average cost for direct materials, the average time to manufacture the product, average wages for direct labor in the manufacturing process, projected sales for the period, and the desired ending inventory of finished goods, as well as current finished goods inventory. These will be a good starting point for discussion of the manufacturing process.

GROUP LEARNING ACTIVITY—Organizational Chart

Ask your students to work in groups to construct an organizational chart for your college. You may want to give them a list of major departments/divisions within the organization. Once the chart is complete, instruct students to identify staff and line functions.

SUGGESTED APPROACH—Management Process

Cover the five basic phases of the management process:

a. Planning—used by management to develop the organization’s objectives (goals) and to translate these objectives into courses of action.

1. Strategic planning—long-term courses of action to achieve goals usually in five to ten years

2. Operational planning—short-term courses of action.

b. Directing—the process by which managers run day-to-day operations.

c. Controlling—consists of monitoring the operating results of implemented plans and comparing the actual results with the expected results.

d. Improving—uses process information to eliminate the *source* of problems in a process, so that the process delivers the right products (services) in the right quantities at the right time.

e. Decision making—part of each of the four management processes above, developing a future plan to respond to unfavorable performances.

INTERNET ACTIVITY—Resources for Management Accountants

Direct your students to visit the Institute of Management Accountants’ (IMA) Web site at http://www.imanet.org. The IMA is the professional organization supporting management accountants. To familiarize students with the resources available to management accountants through the IMA, instruct your students to print out one or more of the following: the IMA’s mission, information on the IMA Ethics Center, the IMA’s Statement of Ethical Professional Practice, or information on the CMA certification.

OBJECTIVE 2

Describe and illustrate the nature of manufacturing operations, including different types and classifications of costs.

SYNOPSIS

Manufacturing businesses use unique terminology to describe their accounting process. The payment of cash or the commitment to pay cash in the future is called cost. Direct costs can be directly connected to a specific cost object. Indirect costs are those that cannot be traced conveniently to the product. Manufacturing costs can be divided into three categories: direct materials, direct labor, and factory overhead. Direct materials must be an integral part of the final product. Direct labor refers to the costs of employees who change the fit, form, or function of the product. Factory overhead costs are those that are incurred in the manufacturing process. Factory overhead can also include materials and labor costs that cannot be traced conveniently to the product. Costs can be divided into product and period costs. Product costs consist of manufacturing costs, direct materials, direct labor, and factory overhead. Periods costs are selling and administrative costs.

*Key Terms and Definitions*

* **Conversion Costs**—The combination of direct labor and factory overhead costs used to convert the materials into a finished product.
* **Cost**—A payment of cash (or a commitment to pay cash in the future) for the purpose of generating revenues.
* **Cost Object**—The object or segment of operations to which costs are related for management’s use, such as a product or department.
* **Direct Costs**—Costs that can be traced directly to a cost object.
* **Direct Labor Cost**—The wages of factory workers who are directly involved in converting materials into a finished product.
* **Direct Materials Cost**—The cost of materials that are an integral part of the finished product.
* **Factory Burden**—Another term for manufacturing overhead or factory overhead.
* **Factory Overhead Cost**—All of the costs of producing a product except for direct materials and direct labor.
* **Indirect Costs**—Costs that cannot be traced directly to a cost object.
* **Manufacturing Overhead**—Costs, other than direct materials and direct labor costs, that are incurred in the manufacturing process.
* **Period Costs**—Those costs that are used up in generating revenue during the current period and that are not involved in manufacturing a product, such as selling, general, and administrative expenses.
* **Prime Costs**—The combination of direct materials and direct labor costs.
* **Product Costs**—The three components of manufacturing cost: direct materials, direct labor, and factory overhead costs.

*Relevant Check Up Corner and Exhibits*

* Exhibit 4—Guitar-Making Operations of Legend Guitars
* Exhibit 5—Direct Costs of Legend Guitars
* Exhibit 6—Indirect Costs of Legend Guitars
* Exhibit 7—Classifying Direct and Indirect Costs
* Exhibit 8—Manufacturing Costs of Legend Guitars
* Exhibit 9—Prime Costs and Conversion Costs
* Exhibit 10—Examples of Product Costs and Period Costs—Legend Guitars
* Exhibit 11—Product Costs, Period Costs, and the Financial Statements
* Check Up Corner 15-2 – Manufacturing Operations

SUGGESTED APPROACH

Begin by contrasting merchandising and manufacturing operations. Remind students that merchandisers purchase a product and sell it. Manufacturers purchase parts and raw materials, make a product, and sell it. You may want to ask your students to list examples of service, merchandising, and manufacturing companies.

TMs 15(1)-4 and 15(1)-5 provide information to assist you in reviewing the major categories of manufacturing costs: direct materials, direct labor, and factory overhead. After explaining these categories, check your students’ understanding by asking them to complete the writing exercise below.

WRITING EXERCISE—Manufacturing Costs

Ask your students to write the headings of two large columns: title the first column “Product Costs” and the second column “Period Costs.” Under the “Product Costs” column, divide into three subheadings, naming them Direct Materials, Direct Labor, and Factory Overhead. “Period Cost” can be divided into two subheadings of Administrative Cost and Selling Cost. Point out an item in the classroom (such as a chair, table, or textbook) and instruct students to list the costs necessary to manufacture the item. These costs should be listed under the appropriate heading.

LECTURE AID—Period Costs

Objective 2 also introduces the term “period costs.” These costs are selling and administrative expenses. TM 15(1)-6 adds these costs to the diagram previously shown on TM 15(1)-5.

GROUP LEARNING ACTIVITY—Concepts and Terminology

Divide the class into groups of three with one in the middle as a recorder. Give two minutes of working time on each exercise. You must push them to get them to work each in two minutes. This is important so they learn that they must know how to classify these costs very quickly. Work each of the Exercises 15(1) -1 through 15(1)-7 at the end of Chapter 15(1) in the textbook.

Use the Instructor’s Resource CD to show correct answers as you progress quickly through these. Again, stress to the students at the end that they must know how to classify these costs or they will miss many answers in the future.

OBJECTIVE 3

Describe sustainable business activities and eco-efficiency measures.

SYNOPSIS

Business managers understand the need to consider not only the financial performance of a firm, but the social and environmental impact as well. As such, managers are looking for techniques and activities to maximize profits while attempting to preserve the environment, economy, and needs of future generations. Exhibit 12 provides examples of sustainable business activities. Exhibit 13 provides examples of eco-efficiency measures. This type of information regarding sustainability can provide important feedback to guide a company’s strategic and operational decisions as well as provide important information for external users.

*Key Terms and Definitions*

* **Eco-efficiency measures**—A form of managerial accounting information that helps managers evaluate the savings generated by using fewer natural resources in a company’s operations. .
* **Sustainability**—The practice of operating a business to maximize profits while attempting to preserve the environment, economy, and needs of future generations.
* **Sustainability Accounting Standards Board (SASB)**—The organization that provides accounting standards that help companies report decision-useful sustainability information to external financial statement users. These standards are not required but are designed to provide sustainability information that complements required financial statement information.

*Relevant Exhibits*

* Exhibit 12—Sustainable Business Activity
* Exhibit 13—Eco-Efficiency Measures

OBJECTIVE 4

Describe and illustrate financial statements for a manufacturing business, including the balance sheet, statement of cost of goods manufactured and income statement.

SYNOPSIS

The income statement and balance sheet of a manufacturing business are more complex than service and merchandising businesses. A manufacturing business has three types of inventory accounts. The materials inventory account consists of direct and indirect materials that have not yet entered the manufacturing process. Materials that have entered the manufacturing process but are not yet complete are called the work in process inventory. The finished goods inventory includes products that have gone completely through the manufacturing process but have not yet been sold. The income statement for a manufacturing business primarily differs in the reporting of the goods available for sale. First, the cost of finished goods available for sale is computed as beginning finished goods inventory + cost of goods manufactured during the period = cost of finished goods available for sale. After that number is determined, the cost of goods sold is determined by cost of finished goods available for sale—ending finished goods inventory = cost of goods sold. The cost of goods manufactured is a separate statement that summarizes the cost of goods manufactured during the period. An example of the statement of cost of goods manufactured is illustrated in Exhibit 16 along with its connection to the income statement.

*Key Terms and Definitions*

* **Cost of Goods Manufactured**—The total cost of making and finishing a product.
* **Cost of Goods Sold**—The cost of finished goods available for sale minus the ending finished goods inventory.
* **Finished Goods Inventory**—The direct materials costs, direct labor costs, and factory overhead costs of finished products that have not been sold.
* **Materials Inventory**—The cost of materials that have not yet entered into the manufacturing process.
* **Merchandise Available for Sale**—The cost of merchandise available for sale to customers calculated by adding the beginning merchandise inventory to net purchases.
* **Statement of Cost of Goods Manufactured**—The income statement of manufacturing companies.
* **Work in Process Inventory—**The direct materials costs, the direct labor costs, and the applied factory overhead costs that have entered into the manufacturing process but are associated with products that have not been finished.

*Relevant Check Up Corner and Exhibits*

* Exhibit 14—Balance Sheet Presentation of Inventory in Manufacturing and Merchandising Companies
* Exhibit 15—Income Statements for Merchandising and Manufacturing Businesses
* Exhibit 16—Manufacturing Company—Income Statement with Statement of Cost of Goods Manufactured
* Exhibit 17—Flow of Manufacturing Costs
* Check Up Corner 15-3 – Manufacturing Financial Statements

SUGGESTED APPROACH

Contrast a merchandising and manufacturing business. Use your local gas station as a merchandising business. It buys and then sells students gasoline without doing anything to the product. This type of business will have one type of inventory—gasoline, if they do not sell anything else. For a manufacturing business, use something such as the local sub/sandwich shop at your school; they manufacture or produce different sandwiches from different meats, cheeses, vegetables, and spreads. They start with the direct materials just discussed, add direct labor to make the sandwiches, and toss in some cost for the use of the equipment, building, heat, air conditioner, the oven, the cash register, the indirect labor of the cash register person, etc. You may even make and bake cookies to demonstrate a manufacturing business as a bakery business. You can illustrate beginning inventory, work in process inventory, and finished goods inventory (if you hurry before they eat the cookies) by stopping at various points. This takes a lot of preparation ahead of time.

The income statement is the first statement that needs preparation in any type of business; so it is with a manufacturing-type business. Cost of merchandise sold for a merchandising business is figured as shown below:

Beginning inventory

+ Purchases

= Merchandise available for sale

– Ending inventory

= Cost of merchandise sold

Cost of goods sold is calculated differently for a manufacturing company, due to the flow of costs through three different inventory accounts: raw materials, work in process, and finished goods.

The statement of cost of goods manufactured shows the flow of costs into and out of raw materials inventory, then the flow of costs into work in process, and the work in process inventory into finished goods inventory. [See TM 15(1)-7.]

The calculations involved are:

Beginning Inventory—Raw Materials

+ Net Purchases

= Total Raw Materials Available for Use

– Ending Inventory—Raw Materials

= Raw Materials Placed in Production

Beginning Work in Process

+ Raw Materials Placed in Production

+ Labor Charged to Work in Process

+ Overhead Charged to Work in Process

– Ending Work In Process

= Cost of Goods Manufactured

The income statement shows the flow of finished goods inventory into the cost of goods sold. [See TM 15-8.]

The calculations are:

Beginning Finished Goods Inventory

+ Cost of Goods Manufactured

= Cost of Finished Goods Available for Sale

– Ending Finished Goods Inventory

= Cost of Goods Sold

.

ADM OBJECTIVE

Describe and measure utilization in evaluating performance for a service company

SYNOPSIS

The service sector makes up nearly 80% of U.S. economic activity (GDP). Exhibit 18 provides some example of service industries and the services they provide. Services are activities that do not result in the transfer, possession, or ownership of goods. As such, accounting measures in service industries differ from those in manufacturing industries. Exhibit 19 breaks down some of the distinctions between Manufacturing and Service companies. An important measurement tool in many services companies is utilization, which can differ among firms.

*Key Terms and Definitions*

* **Utilization—**A measure used in many service companies to measure the use of a fixed assets in serving customers relative to the asset’s capacity.

*Relevant Check Up Corner and Exhibits*

* Exhibit 18 – Examples of Service Industries, Services, and Companies
* Exhibit 19 – Managerial Accounting Distinctions Between Manufacturing and Service Companies
* Make a Decision - Utilization

**Handout 15(1)-1**

**Managerial Accounting Scenario 1**

The manager of a fabric store has noticed a considerable increase in the amount of defective fabric being scrapped by his store. Clerks notice the defects (such as irregularities in the weave or color of fabric) when they cut yardage from bolts of fabric. These defects usually affect only a small portion of the fabric on a bolt. Therefore, when a clerk discovers a defect, the “bad spot” is cut from the bolt. The clerk fills out a defect slip, which includes the amount of defective fabric (in yards), the retail price per yard, and the inventory control number. The defect slip is attached to the fabric and put in a “defects” bin in the storeroom. Once a month, the assistant manager sends the defect slips to the accounting department and packages the bad fabric for sale as scrap material. The accounting department uses the defect slips to write off the defective inventory in the accounting records.

What information could the manager request from the management accounting department that might help in attacking the problem of increasing defects?

**Handout 15(1)-2**

**Managerial Accounting Scenario 2**

The top management of a fast-food hamburger chain is considering installing point-of-sale machines that will allow customers to pay for food with an automated teller-machine card. Previously, the restaurant has accepted only cash.

What information could the management accounting department supply to assist management with this decision?

**Handout 15(1)-3**

**Managerial Accounting Scenario 3**

B Squared Inc. manufactures and sells awnings all over the southeastern United States. Each state has a sales representative who is paid on commissions. Each salesperson is responsible for checking the credit of customers as part of the sales process. Buddy has been the top salesman for the past 5 years in a row. You have been hired as the new sales manager and after meeting with your sales representatives, there are some questions being raised as to why Buddy is the top salesperson and the legitimacy of some of the sales being reported. What information would you request from the accounting department to help confirm or negate these accusations?

**Handout 15(1)-4**

**Managerial Accounting Scenario 4**

You are the newly hired production manager for the XYZ Company manufacturing plant and have been ask by the VP of manufacturing to provide a budget for the next quarter production for overhead cost. What information will you need from accounting to assist in building this report?

**Handout 15(1)-5**

**Managerial Accounting Scenario 5**

You are the newly hired production manager for the XYZ Company manufacturing plant and have been ask by the VP of manufacturing to provide a budget for the next quarter production for prime cost. What information will you need from accounting to assist in building this report?

