

## Chapter-01: Cost terms, Concepts and Classifications

### **1. Cost and Management Accounting :**

# Cost Accounting: Cost Accounting is a branch of accounting that provide information to help the management of a firm to evaluate production cost and efficiency .It includes the presentation of information derived therefrom the purpose of managerial decision making.

# Management Accounting: Management accounting is an area of accounting concerned with reporting results to managers and others who are internal employee to an organization.

### **2. Cost:**

Cost is the actual expenditure incurred on or attributable to a given process, product or service.

### **3. Cost Unit:**

A cost unit is a defined as “a unit of quantity of product ,service or time(or a combination of these) in relation to which costs may be ascertained or expresses”. In other words, **a cost unit is a standard or unit of measurement of the goods manufactured or service rendered.**

### **4. General Cost Classifications:**

For overall reason, we will consider in our discussion the cost characteristics of a variety of organizations-

a. Manufacturing Cost.

b. Non-Manufacturing Cost.

**a. Manufacturing Cost:** Most manufacturing companies separate manufacturing costs into three broad categories:

- Direct Materials: Direct materials are those materials that become an integral part of the finished product and whose costs can be conveniently traced to the finished product.
- Direct Labor: Direct labor consists of labor costs that can be easily (i.e., physically and conveniently) traced to individual units of product.
- Manufacturing Overhead: Manufacturing overhead, the third element of manufacturing cost, includes all costs of manufacturing except direct materials and direct labor. Manufacturing overhead includes items such as indirect materials; indirect labor; maintenance and repairs on production equipment; and heat and light, property taxes, depreciation, and insurance on manufacturing facilities.

## Chapter-01: Cost terms, Concepts and Classifications

**b. Non-Manufacturing Cost:** Nonmanufacturing costs are often divided into two categories:

- **Selling Cost:** Selling costs include all costs that are incurred to secure customer orders and get the finished product to the customer. These costs are sometimes called order-getting and order-filling costs. Examples of selling costs include advertising, shipping, sales travel, sales commissions, sales salaries, and costs of finished goods warehouses.
- **Administrative Cost:** Administrative costs include all executive, organizational, and clerical costs associated with the general management of an organization rather than with manufacturing or selling. Examples of administrative costs include executive compensation, general accounting, secretarial, public relations, and similar costs involved in the overall, general administration of the organization as a whole.

Two more cost categories are often used in discussions of manufacturing costs-

- **Prime Cost:** The sum of direct labor cost and direct materials cost.
- **Conversion Cost:** The sum of direct labor cost and manufacturing overhead cost.

In addition to classifying costs as manufacturing or nonmanufacturing costs, there are other ways to look at costs. For instance, they can also be classified as either:

- Product cost.
- Period cost.

### 5. Product costs vs Period costs:

Product Cost	Period Cost
1. The product cost is apportioned to the products as they are directly related to the production of goods and products	1. Period cost are not apportioned as they cannot be assigned to any products, but they are charged as an expense
2. The basis of this cost is a volume	2. The basis of this cost is time
3. The cost comprises of manufacturing or production cost	3. The cost comprises of office and administrative, selling and distribution etc.
4. The product cost is often a part of the cost of production	4. A period cost is not a part of the cost of production
5. Product cost is generally variable in nature as it depends on the products of	5. A period cost is generally fixed as a cost like salaries rent are fixed in nature and are

## Chapter-01: Cost terms, Concepts and Classifications

goods.	revised yearly.
6. Examples of Product Cost are Raw material, Direct labor, rent of the factory, inventory etc.	6. Examples of Period Cost are audit fees, sales fees, rent of the office building etc.

### 6. Purpose of cost classification:

- Preparing external financial statements.
- Predicting cost behavior in response to changes in activity.
- Assigning costs to cost objects such as departments or products.
- Making decisions.
- Cost of quality.

### 7. Cost Classifications on Financial Statements:

We compare the cost classification used on the financial statements of manufacturing and merchandising companies. The financial statements prepared by a manufacturing company are more complex than the statements prepared by a merchandising company because a manufacturing company must produce its goods as well as market them.

In this topic we define here two terms:

- **Balance Sheet:** The balance sheet is a statement of unexpired assets and equities.
- **Income Statement:** The income statement is a statement of revenues and expired costs (expenses and losses).

### 8. Schedule of Cost of Goods Manufactured:-

The schedule of cost of goods manufactured contains the following elements:

Particulars	Amount(\$)	Amount(\$)
<u>Direct materials:</u>		
Beginning raw materials inventory	XXX	
Add: Purchases of raw materials	<u>XXX</u>	
<b>Raw materials are available</b>		<b>XXX</b>
Deduct: Ending raw materials inventory		<u>XXX</u>
<b>Raw materials used in production</b>		<b>XXX</b>
Direct Labor		XXX

## Chapter-01: Cost terms, Concepts and Classifications

<u>Manufacturing overhead:</u>		
Insurance ,factory	XXX	
Indirect labor	XXX	
Machine rental	XXX	
Utilities ,factory	XXX	
Supplies	XXX	
Depreciation ,factory	XXX	
Property taxes ,factory	<u>XXX</u>	
<b>Total manufacturing overhead cost</b>		<b><u>XXX</u></b>
<b>Total manufacturing cost</b>		<b>XXX</b>
Add: Beginning work in process inventory		XXX
Deduct: Ending work in process inventory		(XXX)
<b>Cost of goods manufactured</b>		<b><u>XXX</u></b>

### 9. Cost Classifications for Predicting Cost Behavior:

Cost behavior refers to how a cost reacts to changes in the level of activity. To help make such distinctions, costs are often categorized as:

- Variable Cost: A variable cost is a cost that varies, in total, in direct proportion to changes in the level of activity. The activity can be expressed in many ways, such as units produced, units sold, miles driven, beds occupied, lines of print, hours worked, and so forth. A good example of a variable cost is direct materials.
- Fixed Cost: A fixed cost is a cost that remains constant, in total, regardless of changes in the level of activity. Unlike variable costs, fixed costs are not affected by changes in activity. Consequently, as the activity level rises and falls, total fixed costs remain constant unless influenced by some outside force, such as a price change. Rent is a good example of a fixed cost.

### 10. Cost Classifications for Assigning Costs to Cost Objects:

A cost object is anything for which cost data are desired- including products, customers, jobs and organizational subunits. For purposes of assigning costs are classified as either:

- Direct Cost: A direct cost is a cost that can be easily and conveniently traced to a specified cost object. The concept of direct cost extends beyond just direct materials and direct labor.

## Chapter-01: Cost terms, Concepts and Classifications

- **Indirect Cost:** An indirect cost is a cost that cannot be easily and conveniently traced to a specified cost object.

### **11. Cost classification for decision making:**

Costs are an important feature of many business decisions. In making decisions, it is essential to have a firm grasp of the concepts about this term of costs:

- **Opportunity Cost:** Opportunity cost is the potential benefit that is given up when one alternative is selected over another. To illustrate this important concept, consider the following examples:

Example-1: Vicki has a part-time job that pays \$200 per week while attending college. She would like to spend a week at the beach during spring break, and her employer has agreed to give her the time off, but without pay. The \$200 in lost wages would be an opportunity cost of taking the week off to be at the beach.

Example-2: Suppose that Neiman Marcus is considering investing a large sum of money in land that may be a site for a future store. Rather than invest the funds in land, the company could invest the funds in high-grade securities. If the land is acquired, the opportunity cost is the investment income that could have been realized by purchasing the securities instead.

Example-3: Steve is employed by a company that pays him a salary of \$38,000 per year. He is thinking about leaving the company and returning to school. Since returning to school would require that he give up his \$38,000 salary, the forgone salary would be an opportunity cost of seeking further education.

Opportunity costs are not usually found in the accounting records of an organization, but they are costs that must be explicitly considered in every decision a manager makes. Virtually every alternative involves an opportunity cost.

- **Sunk Cost:** A sunk cost is a cost that has already been incurred and that cannot be changed by any decision made now or in the future. Because sunk costs cannot be changed by any decision, they are not differential costs. And because only differential costs are relevant in a decision, sunk costs can and should be ignored.

To illustrate a sunk cost, assume that a company paid \$50,000 several years ago for a special-purpose machine. The machine was used to make a product that is now obsolete and is no longer being sold. Even though in hindsight purchasing the machine may have been unwise, the \$50,000 cost has already been incurred and cannot be undone. And it

## Chapter-01: Cost terms, Concepts and Classifications

would be folly to continue making the obsolete product in a misguided attempt to “recover” the original cost of the machine. In short, the \$50,000 originally paid for the machine is a sunk cost that should be ignored in current decisions.

### 12. Comparison of financial and management accounting :

Financial accounting	Management Accounting
1. Financial Accounting is an accounting system that focuses on the preparation of financial statement of an organization to provide the financial information to the interested parties.	1. The accounting system which provides relevant information to the managers to make policies, plans and strategies for running the business effectively is known as Management Accounting.
2. Monetary information only.	2. Monetary and non-monetary information
3. To provide financial information to outsiders.	3. To assist the management in planning and decision making process by providing detailed information on various matters.
4. Format is specified.	4. Format is not specified.
5. Financial Statements are prepared at the end of the accounting period which is usually one year	5. The reports are prepared as per the need and requirements of the organization.
6. Summarized Reports about the financial position of the organization	6. Complete and Detailed reports regarding various information.
7. Required to be published and audited by statutory auditors	7. Neither published nor audited by statutory auditors.

### 13. Comparison of financial and cost accounting :

Financial Accounting	Cost Accounting
1. Financial Accounting is an accounting system that captures the records of financial information about the business to show the correct financial position of the company at a particular date.	1. Cost Accounting is an accounting system, through which an organization keeps the track of various costs incurred in the business in production activities.

## Chapter-01: Cost terms, Concepts and Classifications

2. Records the information which is in monetary terms.	2. Records the information related to material, labor and overhead, which are used in the production process.
3. Only historical cost.	3. Both historical and pre-determined cost
4. Keeping complete record of the financial transactions.	4. Reducing and controlling costs.
5. Income, expenditure and profit are analyzed together for a particular period of the whole entity.	5. Generally, the profit is analyzed for a particular product, job, batch or process.

### Mathematical Problem

**Review Problem-01:** Many new cost terms have been introduced in this chapter. It will take you some time to learn what each term means and how to properly classify costs in an organization. Consider the following example: Chippen Corporation manufactures furniture, including tables. Selected costs are given below:

- a. The tables are made of wood that costs \$100 per table.
- b. The tables are assembled by workers, at a wage cost of \$40 per table.
- c. Workers making tables are supervised by a factory supervisor who is paid \$38,000 per year.
- d. Electrical costs are \$2 per machine-hour. Four machine-hours are required to produce a table.
- e. The depreciation on the machines used to make the tables totals \$10,000 per year. The machines have no resale value and do not wear out through use.
- f. The salary of the president of the company is \$100,000 per year.
- g. The company spends \$250,000 per year to advertise its products.
- h. Salespersons are paid a commission of \$30 for each table sold.
- i. Instead of producing the tables, the company could rent its factory space for \$50,000 per year.

**Required:**

Classify these costs according to the various costs. The terms variable cost and fixed cost refer to how costs behave with respect to the number of tables produced in a year.

**Solution:**

- a) **Variable Costs, Direct Materials**
- b) **Variable Costs, Direct Labors**
- c) **Fixed Cost, Manufacturing Overhead**
- d) **Variable Costs, Manufacturing Overhead**
- e) **Fixed Cost, Manufacturing Overhead, Sunk Cost**
- f) **Fixed Cost, Selling and Administrative Cost (Period cost)**

## Chapter-01: Cost terms, Concepts and Classifications

- g) **Fixed Cost, Selling and Administrative Cost (Period cost)**
- h) **Variable Costs, Selling and Administrative Cost (Period cost)**
- i) **Opportunity Cost**

**Review Problem-02:** The following information has been taken from the accounting records of Klear-Seal Corporation for last year:

Particulars	Amount(\$)
Selling expenses	1,40,000
Raw materials inventory, January 1	90,000
Raw materials inventory, December 31	60,000
Utilities, factory	36,000
Direct labor cost	1,50,000
Depreciation, factory	1,62,000
Purchases of raw materials	7,50,000
Sales	25,00,000
Insurance, factory	40,000
Supplies, factory	15,000
Administrative expenses	2,70,000
Indirect labor	3,00,000
Maintenance, factory	87,000
Work in process inventory, January 1	1,80,000
Work in process inventory, December 31	1,00,000
Finished goods inventory, January 1	2,60,000
Finished goods inventory, December 31	2,10,000

**Required:**

- a. Prepare a schedule of cost of goods manufactured.
- b. Compute the cost of goods sold.
- c. Prepare an income statement.

**Solution:**

**Required: a**

Klear - Seal Corporation  
Schedule of cost of Goods Manufactured  
For the year ended December 31,2019

Particulars	Amount(\$)	Amount(\$)
Raw materials ,beginning	90,000	
(+) RM Purchase	<u>7,50,000</u>	
<b>RM available for use</b>		<b>8,40,000</b>
(-) Raw Materials ,ending		<u>(60,000)</u>
<b>RM used in production</b>		<b>7,80,000</b>



## Chapter-01: Cost terms, Concepts and Classifications

Direct labor		1,50,000
<u>Manufacturing overhead:</u>		
Indirect labor	30,0000	
Maintenance ,factory	87,000	
Insurance ,factory	40,000	
Utilities ,factory	36,000	
Supplies	15,000	
Depreciation ,factory	<u>1,62,000</u>	
<b>Total manufacturing overhead cost</b>		<b><u>6,40,000</u></b>
<b>Total manufacturing cost</b>		<b><u>15,70,000</u></b>
(+) work in process, beginning		<u>1,80,000</u>
		17,50,000
(-) work in process, ending		(1,00,000)
<b>Cost of good manufactured</b>		<b><u>\$16,50,000</u></b>

### Required: b

Klear\_Seal Corporation  
Schedule of cost of Goods Sold  
For the year ended December 31,2019

Particulars	Amount(\$)	Amount(\$)
Finished goods inventory, January 1	2,60,000	
(+)Cost of goods manufactured	<u>1,650,000</u>	
Goods available for sale		19,10,000
(-)Finished goods inventory, December 31		<u>(2,10,000)</u>
<b>Cost of goods sold</b>		<b><u>\$17,00,000</u></b>

### Required: c

Klear\_Seal Corporation  
Schedule of Income Statement  
For the year ended December 31,2019

Particulars	Amount(\$)	Amount(\$)
Sales		25,00,000
(-)Cost of goods sold(above)		<u>(17,00,000)</u>
Gross margin		8,00,000
(-)Selling and Administrative expenses:		
Selling expenses	1,40,000	
Administrative expenses	<u>2,70,000</u>	
Total selling and administrative expenses		<u>(4,10,000)</u>
<b>Net Operating Income</b>		<b><u>\$3,90,000</u></b>

## Chapter-01: Cost terms, Concepts and Classifications

**Exercise-01:** Your Boat, Inc., assembles custom sailboats from components supplied by various manufacturers. The company is very small and its assembly shop and retail sales store are housed in a Gig Harbor, Washington, boathouse. Below are listed some of the costs that are incurred at the company.

**Required:**

For each cost, indicate whether it would most likely be classified as direct labor, direct materials, manufacturing overhead, selling, or an administrative cost.

- a. The wages of employees who build the sailboats.
- b. The cost of advertising in the local newspapers.
- c. The cost of an aluminum mast installed in a sailboat.
- d. The wages of the assembly shop's supervisor.
- e. Rent on the boathouse.
- f. The wages of the company's bookkeeper.
- g. Sales commissions paid to the company's salespeople.
- h. Depreciation on power tools.

**Exercise-2:** Suppose that you have been given a summer job at Fairwings Avionics, a company that manufactures sophisticated radar sets for commercial aircraft. The company, which is privately owned, has approached a bank for a loan to help finance its tremendous growth. The bank requires financial statements before approving such a loan. You have been asked to help prepare the financial statements and were given the following list of costs:

- a. The cost of the memory chips used in a radar set.
- b. Factory heating costs.
- c. Factory equipment maintenance costs.
- d. Training costs for new administrative employees.
- e. The cost of the solder that is used in assembling the radar sets.
- f. The travel costs of the company's salespersons.
- g. Wages and salaries of factory security personnel.
- h. The cost of air-conditioning executive offices.
- i. Wages and salaries in the department that handles billing customers.
- j. Depreciation on the equipment in the fitness room used by factory workers.
- k. Telephone expenses incurred by factory management.
- l. The costs of shipping completed radar sets to customers.
- m. The wages of the workers who assemble the radar sets.
- n. The president's salary.
- o. Health insurance premiums for factory personnel.

**Required:**

Classify the above costs as either product (inventoriable) costs or period (noninventoriable).

## Chapter-01: Cost terms, Concepts and Classifications

**Exercise-3:** The following cost and inventory data for the just completed year are taken from the accounting records of Eccles Company:

**Costs incurred:**

Advertising expense . . . . .	\$1,00,000
Direct labor cost . . . . .	\$90,000
Purchases of raw materials . . . . .	\$1,32,000
Rent, factory building . . . . .	\$80,000
Indirect labor . . . . .	\$56,300
Sales commissions . . . . .	\$35,000
Utilities, factory . . . . .	\$9,000
Maintenance, factory equipment . . . . .	\$24,000
Supplies, factory . . . . .	\$700
Depreciation, office equipment . . . . .	\$8,000
Depreciation, factory equipment . . . . .	\$40,000

	Beginning of Year	End of Year
<b>Inventories:</b>		
Raw materials . . . . .	\$8,000	\$10,000
Work in process . . . . .	\$5,000	\$20,000
Finished goods . . . . .	\$70,000	\$25,000

**Required:**

- a. Prepare a schedule of cost of goods manufactured.
- b. Prepare the cost of goods sold section of Eccles Company's income statement for the year.