

Course: Cost Accounting (5410)

Semester: Spring, 2021

ASSIGNMENT No. 1

Q.1

a) 'Cost accounting is an aid to management'. Discuss the main points in support of this statement.

Cost accounting is a form of managerial accounting that aims to capture a company's total cost of production by assessing the variable costs of each step of production as well as fixed costs, such as a lease expense.

- Cost accounting is used internally by management in order to make fully informed business decisions.
- Unlike financial accounting, which provides information to external financial statement users, cost accounting is not required to adhere to set standards and can be flexible to meet the needs of management.
- Cost accounting considers all input costs associated with production, including both variable and fixed costs.
- Types of cost accounting include standard costing, activity-based costing, lean accounting, and marginal costing.

Understanding Cost Accounting

Cost accounting is used by a company's internal management team to identify all variable and fixed costs associated with the production process. It will first measure and record these costs individually, then compare input costs to output results to aid in measuring financial performance and making future business decisions. There are many types of costs involved in cost accounting, which are defined below.

Types of Costs

- Fixed costs are costs that don't vary depending on the level of production. These are usually things like the mortgage or lease payment on a building or a piece of equipment that is depreciated at a fixed monthly rate. An increase or decrease in production levels would cause no change in these costs.
- Variable costs are costs tied to a company's level of production. For example, a floral shop ramping up its floral arrangement inventory for Valentine's Day will incur higher costs when it purchases an increased number of flowers from the local nursery or garden center.
- Operating costs are costs associated with the day-to-day operations of a business. These costs can be either fixed or variable depending on the unique situation.
- Direct costs are costs specifically related to producing a product. If a coffee roaster spends five hours roasting coffee, the direct costs of the finished product include the labor hours of the roaster and the cost of the coffee beans.
- Indirect costs are costs that cannot be directly linked to a product. In the coffee roaster example, the energy cost to heat the roaster would be indirect because it is inexact and difficult to trace to individual products.

Cost Accounting vs. Financial Accounting

While cost accounting is often used by management within a company to aid in decision-making, financial accounting is what outside investors or creditors typically see. Financial accounting presents a company's financial position and performance to external sources through financial statements, which include information about its revenues, expenses, assets, and liabilities. Cost accounting can be most beneficial as a tool for management in budgeting and in setting up cost control programs, which can improve net margins for the company in the future.

One key difference between cost accounting and financial accounting is that, while in financial accounting the cost is classified depending on the type of transaction, cost accounting classifies costs according to the information needs of the management. Cost accounting, because it is used as an internal tool by management, does not have to meet any specific standard such as generally accepted accounting principles (GAAP) and, as a result, varies in use from company to company or department to department.

Types of Cost Accounting

Standard Costing

Standard costing assigns "standard" costs, rather than actual costs, to its cost of goods sold (COGS) and inventory. The standard costs are based on an efficient use of labor and materials to produce the good or service under standard operating conditions, and they are essentially the budgeted amount. Even though standard costs are assigned to the goods, the company still has to pay actual costs. Assessing the difference between the standard (efficient) cost and actual cost incurred is called variance analysis.

If the variance analysis determines that actual costs are higher than expected, the variance is unfavorable. If it determines the actual costs are lower than expected, the variance is favorable. Two factors can contribute to a favorable or unfavorable variance. There is the cost of the input, such as the cost of labor and materials. This is considered to be a rate variance. Additionally, there is the efficiency or quantity of the input used. This is considered to be a volume variance. If, for example, XYZ company expected to produce 400 widgets in a period but ended up producing 500 widgets, the cost of materials would be higher due to the total quantity produced.

Activity-Based Costing

Activity-based costing (ABC) identifies overhead costs from each department and assigns them to specific cost objects, such as goods or services. The ABC system of cost accounting is based on activities, which is any event, unit of work, or task with a specific goal, such as setting up machines for production, designing products, distributing finished goods, or operating machines. These activities are also considered to be cost drivers, and they are the measures used as the basis for allocating overhead costs.

Traditionally, overhead costs are assigned based on one generic measure, such as machine hours. Under ABC, an activity analysis is performed where appropriate measures are identified as the cost drivers. As a result, ABC

tends to be much more accurate and helpful when it comes to managers reviewing the cost and profitability of their company's specific services or products.

For example, cost accountants using ABC might pass out a survey to production line employees who will then account for the amount of time they spend on different tasks. The costs of these specific activities are only assigned to the goods or services that used the activity. This gives management a better idea of where exactly time and money is being spent.

To illustrate this, assume a company produces both trinkets and widgets. The trinkets are very labor-intensive and require quite a bit of hands-on effort from the production staff. The production of widgets is automated, and it mostly consists of putting the raw material in a machine and waiting many hours for the finished good. It would not make sense to use machine hours to allocate overhead to both items, because the trinkets hardly used any machine hours. Under ABC, the trinkets are assigned more overhead related to labor and the widgets are assigned more overhead related to machine use.

Lean Accounting

The main goal of lean accounting is to improve financial management practices within an organization. Lean accounting is an extension of the philosophy of lean manufacturing and production, which has the stated intention of minimizing waste while optimizing productivity. For example, if an accounting department is able to cut down on wasted time, employees can focus that saved time more productively on value-added tasks.

When using lean accounting, traditional costing methods are replaced by value-based pricing and lean-focused performance measurements. Financial decision-making is based on the impact on the company's total value stream profitability. Value streams are the profit centers of a company, which is any branch or division that directly adds to its bottom-line profitability.

Marginal Costing

Marginal costing (sometimes called cost-volume-profit analysis) is the impact on the cost of a product by adding one additional unit into production. It is useful for short-term economic decisions. Marginal costing can help management identify the impact of varying levels of costs and volume on operating profit. This type of analysis can be used by management to gain insight into potentially profitable new products, sales prices to establish for existing products, and the impact of marketing campaigns.

The break-even point, which is the production level where total revenue for a product equals total expense, is calculated as the total fixed costs of a company divided by its contribution margin. The contribution margin, calculated as the sales revenue minus variable costs, can also be calculated on a per-unit basis in order to determine the extent to which a specific product contributes to the overall profit of the company.

History of Cost Accounting

Scholars believe that cost accounting was first developed during the industrial revolution when the emerging economics of industrial supply and demand forced manufacturers to start tracking their fixed and variable expenses in order to optimize their production processes.¹ Cost accounting allowed railroad and steel companies

to control costs and become more efficient. By the beginning of the 20th century, cost accounting had become a widely covered topic in the literature of business management.

b) Define the following key terms:

(i) Cost Driver

An activity cost driver is an accounting term. A cost driver affects the cost of specific business activities. In activity-based costing (ABC), an activity cost driver influences the costs of labor, maintenance, or other variable costs. Cost drivers are essential in ABC, a branch of managerial accounting that allocates the indirect costs, or overheads, of an activity.

(ii) Value added Costs

A value-added cost is one that improves the quality of a product or service, or enhances customers' perception of that product or service. Another way to think of a value-added cost is **an expense that customers are willing to pay for**.

(iii) Multiple Costing

Multiple costing, also known as **composite costing**, is a type of accounting method used when goods are sold that contain several other processed parts, and these parts are costed differently. ... This is called costing. Each component or part can be, and usually is, costed using a different practice.

(iv) Direct Cost

Direct costs are costs which are directly accountable to a cost object. Some overhead costs which can be directly attributed to a project may also be classified as a direct cost. Initial delivery are not included in direct attributable cost Direct costs are directly attributable to the object.

(v) Differential Cost

Differential cost is **the difference between the cost of two alternative decisions, or of a change in output levels**. The concept is used when there are multiple possible options to pursue, and a choice must be made to select one option and drop the others.

Q.2 The book and record of the Fazal Khan Manufacturing Co. presents the following data for the months April:

Direct labour cost Rs. 15,000 (150% of FOD)

Cost of Goods Sold Rs. 56,000; Sales Rs. 75,000.

Inventory accounts showed the following balances:

Inventories	April	April 30
Finished	14,000	Rs. 18,000
Goods Rs		

Work	in	8,000	12,000
Process			
Materials		10,000	8,600

Marketing expenditure Rs. 3,200, General and Administrative expenses Rs. 2,400.

Required: Prepare income statement with supporting schedule showing cost of goods manufactured and sold statement.

	Opening inventory material	18000
Add	Material Purchased	<u>56000</u>
	Material available for use	74000
Less	Ending Inventory material	<u>8600</u>
	Cost of Material Used	65400
Add	Direct Labor cost	<u>15000</u>
	Prime Cost	80400
Add	Applied Factory Overhead (15000 x 150%)	<u>22500</u>
	Total factory cost	102900
Add	Opening Work in Process Inventory	12000
	Cost of Goods Available for Manufacturing	3200
Less	Ending Work in Process Inventory	2400
Add	Opening finished goods inventory	<u>75000</u>
	Cost of goods available for sale at normal	190700
Less	Ending finished goods inventory	<u>75000</u>
	Cost of goods sold at normal	265700
	Cost of goods sold at actual	<u>265700</u>

Q.3 Saleem Manufacturing Company uses a job order cost system, and compiled the following data for the month ended on 30th June, 2014;

Material and Supplies Purchased	242,000
Direct Material Used	190,000
Supplies Used	20,000
Direct Labour	150,000
Other Labour	35,000
Utility Costs for year	65,000
Miscellaneous Overhead	40,000
Depreciation Equipment	22,000

Depreciation Building	8,000
Applied factory Overhead (20% of direct labour costs)	
Cost of Goods completed (material, Rs. 170,000; labour Rs. 130,000)	326,000
Sales	500,000
Selling and Administrative Expenses	110,000

Required: Pass Appropriate Journal entries to record the above given information and calculate the net income.

Particulars	Dr.	Cr.
Material Account	242000	
Payable Account		242000
Work in Process Account	190000	
Factory Overhead Control Account	30000	
Material Account		220000
Supply Used	20000	
Work in Process		20000
Utility Cost	65000	
Misc. Overhead	40000	
Payable		105000
Material Account	170000	
Labour Account	130000	
Cost of Goods		300000

Sales	500000	
Cost of Goods Sold	<u>300000</u>	
Gross Profit	200000	
<u>Operating Expenses</u>		
Marketing Expenses	110000	
Office Expenses	<u>70000</u>	<u>180000</u>
Net Income	20000	

Q.4 What is the difference between Job order costing and Process costing? Describe the components of Process costing.

There are various cost accounting techniques used to measure the cost of the product. When the goods are produced only against special orders, **job costing** is used by firms. On the other hand, when a product passes

through several processes or stages, the output of one process becomes the input of next process, and to determine the cost of each process, **process costing** method is applied. It is generally used when like units are to be manufactured, that too in a continuous flow.

In other words, the former is used to calculate the cost of jobs or contracts which are distinct in nature, while the latter used to compute the cost charged to each process. So, here in this article excerpt, we present all the differences between Job Costing and Process Costing, in a tabular form.

Job Costing

A method of costing in which cost of each 'job' is determined is known as Job Costing. Here job refers to a specific work or assignment or a contract where the work is performed according to the customer's instructions and requirements. The output of each job consists of normally one or less of units. In this method, each job is considered as a distinct entity, for which cost is ascertained. Job Costing is applied when:

- The execution of the jobs is on the basis of client's specification.
- All the jobs heterogeneous in many respects and each job require separate treatment.
- There is a difference in WIP (Work in progress), of each period.

Job Costing is best suited for the industries where specialized products are manufactured as per customer needs and demands. Some examples of those industries are Furniture, Ship Building, Printing Press, Interior Decoration, etc.

Process Costing

A costing technique, which is used to calculate the cost of each process is known as Process Costing. Here process refers to a separate stage where production is performed to convert the raw material into an another identifiable form. Process Costing is used in the industry where identical products are produced in huge quantities.

In Process costing, the plant is divided into some processes where the production is performed either sequentially, parallelly or selectively. The output of the former process becomes the input of the latter process, and at the end, the output of the last process is the final product. The individual process account is prepared for each process.

Process Costing is best suited for large-scale production is done as well as where there are multiple levels of producing a product. Some example of such industries is steel, soap, paper, cold drink, paints, etc.

The following are the major differences between job costing and process costing:

1. The costing method which is used for the ascertainment of the cost of each job is known as Job Costing. Conversely, by process costing, we mean the costing technique used to determine the cost of each process.
2. Job Costing is performed where the products produced of a specialized nature, whereas Process Costing is used where standardized products are produced.
3. In Job Costing, the cost is calculated for each job, but in Process Costing first of all the cost of each process is calculated which is then dispersed over the number of units produced.

4. In job costing the cost center is the job itself while the process is the cost center in case of process costing.
5. In job costing each job requires special treatment. On the other hand, no such special treatment is required for each process in process costing.
6. There is no transfer of cost in job costing, from one job to another. However, the cost of the last process is transferred to the next process in the process costing.
7. The possibility of cost reduction is very less in Job Costing. In contrast to Process Costing, the scope of cost reduction is comparatively high.
8. In Job Costing, the cost is ascertained after the completion of the job, but in Process Costing, the cost of each job is determined.
9. In job costing, losses are not bifurcated. On the contrary, in process costing normal losses are ascertained carefully, while the abnormal losses are bifurcated.
10. In job costing, WIP may or may not be present at the end of the financial year. As against this, WIP will always be present, irrespective of the quantity, in the beginning, or at the end of the accounting period, in process costing.

Q.5 During July 2014, the Assembly Department received 60,000 units from the Cutting Department at a unit cost of Rs. 3.54. Costs added in the Assembly Department were: materials, Rs. 41,650; labour, Rs. 101,700; and factory overhead, Rs. 56,500. There was no beginning inventory. Of the 60,000 units received, 50,000 were transferred out; 9,000 units were in process at the end of the month (all materials, 2/3 converted), 1,000 lost units were ½ complete as to materials and conversion costs. The entire loss is considered abnormal and is to be charged to factory overhead.

Required: Prepare a cost of production report of Assembly Department for July 2014.

Assembly Department

Cost of Production Report

For the month of July, 2014

Quantity Schedule

Units received from preceding department		60,000
		=====
Units transferred to next department	50,000	
Units still in process (All materials - 2/3 labor and overhead)	9,000	
Units lost in process (Abnormal loss - 1/2 materials, labor, and overhead)	1,000	60,000
	-----	=====

Cost Charged to the Department:	Total Cost	Unit Cost
Cost from preceding department:		
Transferred in during the month (60,000 units)	\$212,400	\$3.54
	-----	-----
Cost added by the department:		
Materials	\$41,650	\$1.70
Labor	\$101,700	\$1.80
Factory overhead	\$56,500	\$1.00
	-----	-----
Total cost added	\$199,850	\$3.50
	-----	-----
Total cost to be accounted for	\$412,250	\$7.04
	=====	=====
Cost Accounted for as Follows:		
Transferred to next department (50,000 × \$7.04)		\$352,000
Transferred to Factory Overhead:		
From preceding department (1,000 × \$3.54)	\$3,540	
Materials (1,000 × 1/2 × \$0.70)	350	
Labor (1,000 × 1/2 × \$1.80)	900	
Factory overhead (1,000 × 1/2 × \$1.00)	500	5,290

Work in process - ending inventory:		
Cost from preceding department (9000 × \$3.54)	\$31,860	
Materials (9,000 × 0.70)	6,300	
Labor (9,000 × 2/3 × 1.80)	10,800	
Factory overhead (9,000 × 2/3 × 1.00)	6,000	54,960
	-----	-----
Total cost accounted for		\$412,250
		=====

Additional Computations

Equivalent Production:

Materials = 50,000 + 9,000 + 1,000/2 lost units = 59,500 units

Labor and factory overhead = $50,000 + (9,000 \times 2/3) + 1,000/2$ lost units = 56,500

Unit Cost:

Materials = $\$41,650 / 59,500 = \0.70 per unit

Labor = $\$101,700 / 56,500 = \1.80 per unit

Factory overhead = $\$56,500 / 56,500 = \1.00 per unit