

## POPULAR SYSTEM OF COSTING

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### ABSTRACT

*A study of costing literature reveals the absence of a concrete definition for systems of costing and for techniques of costing. For instance, Blocker and Weltmer have used the term system while describing the two principal costing methods viz., Job costing and process costing. Wheldon terms standard costing as a method of costing. Bigg discusses the methods of costing under the head types of costing. CIMA, England in its terminology discusses marginal costing, standard costing, direct costing, historical costing, absorption costing and uniform costing under the head types of costing. However, marginal costing may be reckoned as a technique of costing. Further, in the note appended to the definition of marginal costing, CIMA, England states marginal costing as a method of costing. But B.K. Bhar discusses the same marginal costing, standard costing, direct costing historical costing, absorption costing and uniform costing, under the head Techniques of costing. It is for this type of reason that it was opined earlier that there is no clear cut definition for systems of costing and techniques of costing.*

**KEYWORDS:** Costing Methods, Job Costing, Process Costing, Standard Costing, Marginal Costing.

### Introduction

Marginal costing analyses the costs and revenue associated with the alternatives in a very systematic manner. The purpose of these analyses is to assist and help the management group to take the right decisions. Since the managerial decisions play a very crucial role, management has to take correct decisions. Since marginal costing analyses the costs and revenue from the view point of their relevancy to the decisions under consideration, it is capable of furnishing only the relevant information to the management groups. Therefore, corporate sector has been using marginal costing as a technique of costing but not as a system of costing. CIMA, England in its report on marginal costing states that marginal costing is not a system of costing; it is the application of a technique for planned profit earning.

As far as system of costing is concerned, Batty is of the opinion that a system of costing implies that there is a planned and co- ordinate arrangement of all matters relating to costing. This lays emphasis on evolving systematic procedure for collection, classification, accumulation and ascertainment of costs. Costs can be collected and computed either after or before they are being incurred. If the costs are ascertained after their incurrence, it is called historical costing. CIMA, England has therefore defined historical costing as the ascertainment of cost after they have been incurred. It is of not much use for the management for cost control which is one of the important objectives of cost accounting (and cost accountancy). Because a sound cost accounting system must aim at not only ascertaining costs but also control of costs. Of course, in the initial stage of its development, cost accounting was used primarily to ascertain costs. Batty has therefore opined that historical costing, the ascertainment and recording of actual costs when or after, they have been incurred, was one of the first stages in the growth of the cost accountant's work. Therefore, the procedure of ascertaining the costs before they are being incurred

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(called standard costs) has been in vogue in the corporate sector. CIMA, England has therefore defined standard cost as a pre-determined cost which is calculated from management's standards of efficient operation and the relevant necessary expenditure. It may be used as a basis for price fixing and for cost control through variance analysis. Further CIMA, England defined standard costing as the preparation and use of standard costs, their comparison with actual costs and to analysis of variances to their causes and point of incident. By establishing standards for each element of costs, comparing actual with the standards, finding out variances, if any and the reasons for the variance, and recommending to the management to take necessary remedial measures, standard costing helps to exercise control over the costs. Therefore standard costing can rightly be called a system of costing.

### **Standard Costing**

Standard costing is an important tool of modern cost control. In order to exercise effective control over costs of production, management must know the cost of individual product which should have been incurred on them. Thus, standard cost is a pre-determined cost. I.C.W.A., London has defined it as follows:

"The standard cost is a pre-determined cost which is calculated from management's standards of efficient operations and the relevant necessary expenditure." Similarly, Brown and Howard have defined it as follows:

"The standard cost is a pre-determined cost which is determines what each product or service should cost in given circumstances."

### **Marginal Costing**

Marginal costing is defined as "the ascertainment by differentiating between fixed costs and variable costs, of material costs, and of the effect on the profit of changes in volume or type of output." By analyzing the definition it will be observed that the technique of marginal costing lies:

- In differentiating between fixed and variable elements of costs,
- In ascertaining the marginal cost, and also,
- In ascertaining the effect of changes in volume or type of output on profitability of a company.

Thus, marginal cost is defined as "the amount of any given volume of output by which the aggregate cost are changed if the volume of output is increased or decreased by one unit.

### **Budgetary Control**

Budgetary Control is defined as, "the establishment of budgets relating the responsibilities of the executives to the requirements of a policy, and the continuous comparison of actual with budgeted results either to secure by individual action the objective of that policy or to provide a basis for its revision."

### **Cost-Behavior Patterns**

Costing system record the cost of resources acquired and track their subsequent use. Recording these costs allows managers to see how these costs behave. Take an example of two basic types of cost-behavior patterns found in many accounting systems. A variable cost changes in total in proportion to changes in the related level of total activity or volume. A fixed cost remains unchanged in total for a given time period despite wide changes in the related level of total activity or volume. Costs are defined as variable or fixed with respect to a specific cost specific cost object and for a given time. We study these two basic types of costs with a manufacturing-sector example.

- **Variable Costs:** If Maruti Car Company buys a steering wheel at Rs.600 for each of its Maruti Car Company, and then the total cost of steering wheels should be Rs.600 times the number of cars assembled. Total steering wheel costs in an example of a variable cost. a cost that changes in total in proportion to changes in the number of cars assembled. A second example of a variable cost is a sales commission of 5% of each sales revenue in rupees. Variable costs are represented by a straight line. The phrases "strictly variable" or "proportionately variable" are some times used to describe the variable costs. In both the cases, the cost per unit of a variable cost remains the same. For example the steering wheel costs Rs.60 for each car assembled.
- **Fixed costs:** Maruti Car Company may incur Rs.200 million in a given year for the leasing and insurance for its Delhi Plant. Both these costs are unchanged in total over a designated range of the number of cars assembled during a given time span. Fixed costs become progressively

smaller on a per unit basis as the number of cars assembled increases. For example, if Maruti Car Company assembles 10,000 cars at Delhi factory in a year, the fixed cost for leasing and insurance per car would be Rs20,000 ( $\text{Rs.}200,000,000 \div 10,000$ ). If 50,000 cars are assembled, the fixed cost per car would be Rs.4000 ( $\text{Rs.}200,000,000 \div 50,000$ ).

Do not assume that individual cost items are inherently variable or fixed. Consider labour costs. An example of labour costs being purely variable is when workers are paid on a piece-unit (piece-rate) basis. Some textile workers are paid on a per shirt sewed basis. In contrast, Labour costs at a factory in the coming year are appropriately classified as fixed, where a labour union agreement has a set annual salary and conditions, contains a no-layoff clause, and severely restricts a company's flexibility to assign workers to any other plant that has demand for labour.

### Cost Drivers

A cost driver is a factor, such as the level of activity or volume, that causally affects costs (over a given time span). That is, a cause-and-effect relationship exists between a change in the level of activity or volume and a change in the level of the total costs of that cost object.

The cost driver of variable costs is the level of activity or volume whose change causes the (variable) costs to change proportionately. For example, the number of vehicles assembled is a cost driver of the cost of steering wheels.

### Relationships of Types of Costs

We have studied two major classifications of costs: direct/indirect and variable/fixed. Costs may simultaneously be:

- *Direct and variable*
- *Direct and fixed*
- *Indirect and variable*
- *Indirect and fixed*

### Manufacturing, Merchandising, and Service-Sector Companies

Companies in the manufacturing, merchandising, and service sectors of the economy are frequently referenced by cost accountants.

- Manufacturing companies purchase materials and components and convert them into different finished goods. Example is automotive companies, food processing companies, and textile companies.
- Merchandising companies purchase and then sell tangible goods without changing their basis form. This sector includes companies engaged in retailing (such as book stores or department stores), distribution, or wholesaling.
- Service companies provide services or intangible goods to their customer-for example, legal advice or audits. Examples are law firms, accounting firms, banks, insurance companies, and Internet-based companies.

The distinction between inventorial costs and period costs is now studied. This distinction is important in both the manufacturing and merchandising sectors of the economy.

### Inventorial Costs and Period Costs

The distinction between inventorial costs and period cost is a key one in the generally accepted accounting principles that govern financial reporting. We know very well different types of inventories that companies hold and some commonly used classifications of manufacturing costs.

### Types of Inventories

Manufacturing companies purchase materials and components and convert them into different finished goods. They typically have one or more of the following three types of inventor:

- *Direct materials inventory*: Direct materials in stock and awaiting use in the manufacturing process.
- *Work-in-process inventory*: Goods partially worked on but not yet fully completed. Also called work-in-progress.
- *Finished goods inventory*: Goods fully completed but not yet sold.

Merchandising companies purchase and then sell tangible goods without changing their basic form. They hold only one type of inventory, which is the product in its original purchased form. Service providing companies provide only services or intangible goods to their customers and, hence, do not hold inventories of tangible goods for sale.

### **Classifications of Manufacturing Costs**

Three terms with widespread use when describing manufacturing costs are direct materials costs, direct manufacturing labour costs, and indirect manufacturing costs<sup>16</sup>.

- Direct materials costs are the acquisition costs of all materials that eventually become part of the cost object ('work in process' or finished goods) and that can be traced to the cost object in an economically feasible way. Acquisition costs of direct materials include freight- in (inward delivery) charges, sales taxes, and custom duties.
- Direct manufacturing labour costs include the compensation of all manufacturing labour that can be traced to the cost object in an economically feasible way. Examples include wages and fringe benefits paid to machine operators and assembly line workers.
- Indirect manufacturing costs are all manufacturing costs that are considered part of the cost object units finished or in process, but that cannot be traced to that cost object in an economically feasible way. Examples include power, supplies, indirect materials, indirect manufacturing labour, plant rent, plant insurance and property taxes on plants, plant depreciation, and the compensation of plant managers. Other terms for this cost category include manufacturing overhead costs. We use indirect manufacturing costs and manufacturing overhead costs interchangeably in this research work.

### **Inventorial Costs**

Inventorial costs are all costs of goods that are regarded as an asset when they are incurred and then become cost of goods sold when the product is sold. For manufacturing companies, all manufacturing costs are inventorial costs. Cost incurred for direct materials, direct manufacturing labour and indirect manufacturing costs create new assets, first work- in- process and then finished goods. Hence, manufacturing costs are included in work- in- process and finished goods inventory (they are "inventoried") to accumulate the costs of creating these assets. When finished goods are sold the cost of the goods sold is recognized as an expense to be matched against the revenues from the sale. We know that the cost of goods sold includes all manufacturing costs (direct materials, direct manufacturing labour, and indirect manufacturing costs) incurred to produce the good sold. Sales may occur in a different accounting period than the period in which the goods were manufactured. Thus, inventorying manufacturing costs during manufacturing process and expensing the manufacturing cost of goods sold later when revenues are recognized achieves better matching of revenues and expenses.

For merchandising companies, inventorial costs are the costs of purchasing the goods that are resold in their same form. These costs are the costs of the goods themselves and any incoming freight costs for those goods. For service providing companies, the absence of inventories means there are no inventorial costs.

### **Period Costs**

Period Costs are all costs in the income statement other than cost of goods sold. These costs are treated as expenses of the period in which they are incurred because they are presumed not to benefit future periods or because there is not sufficient evidence to conclude that such benefit exists.

For manufacturing companies, period costs include all no manufacturing costs for example, research and development costs and distribution costs. For merchandising companies, period costs include all costs not related to the cost of goods purchased for resale in their same form, for example, labour cost of sales floor personnel and marketing costs. The absence of inventorial costs for service providing companies means that all their costs are period costs.

### **Cost Centers**

For the purposes of administrative control, the whole business organization is divided into a number of sub-units which may be in the form of departments, branches, processes ascertaining and controlling costs. The costs incurred will be charged initially to these sub-units which are known as cost centers. A cost centre is therefore a sub-unit of the organization for which costs may be collected separately and used for cost ascertainment and control. CIMA, England has therefore defined cost centre

as, a location, person, or item of equipment (or group of these) for which costs may be ascertained and used for the purposes of cost control. An analysis of this definition reveals that a cost centre may be in the form of (a) a location (such as, a department, division, section or process) or (b) an item of equipment (like, machine) or (c) a person (e.g., sales man) or a group of these. However, costs incurred are identified with the cost centers initially (for distribution later amongst cost units). It helps to ascertain the cost centre-wise costs. Division of business organization into a number of cost centres, therefore, assumes importance. The number and size of cost centers differ from one business organization to another depending upon the nature of production activities, size of the organization, management's informational needs, etc. The cost centre may broadly be classified into two following categories as personal cost centers and impersonal cost centers.

Personal Cost Centre has been defined by CIMA, England as a cost centre which consists of a person or group of persons. For example, a salesman may be considered as a cost centre. By doing so, the company is able to identify a number of items of costs with the salesman and therefore charged to him. Cost of goods sold by the salesman, his commission, his traveling expense, his remuneration, etc. are some of the items of expenses which can be charged to the personal cost centre. On the other hand, impersonal cost centre has been defined by CIMA, England as a cost centre which consists of a location or item of equipment (or group of these). For example, production department may be reckoned as a cost centre.

Here, material costs, labour cost and other overhead expenses incurred to produce a commodity may be identified with, and charged to, the production department which is an impersonal cost centre. A machine may also be considered as a cost centre. Because, repairs and maintenance of the machine, depreciation charge of the machine, wages of the operator operating the machine, a share in the rent and insurance of the factory building as the machine occupies a part of the factory building, etc. can be identified with, and charged to, the machine which is an impersonal cost centre.

Besides, two more types of cost centers can also be found in a business organization. They are operation cost centre and process cost centre. CIMA, England defines operation cost centre as a cost centre which consist of those machines and/or persons carrying out similar operations. That means, all machines and/or persons engaged in the carrying out of similar operations are brought together under one cost centre for the purposes of cost accumulation, ascertainment and control. Process cost centre has been defined by CIMA, England as a cost centre which consists of a specific process or a continuous sequence of operations. As is known, in processing industries raw materials pass through different manufacturing processes before being converted into finished product. In this case, each process is considered as a cost centre.

This way, the business organization is to be divided into a number of cost centers for cost accumulation, ascertainment and control. Normally, one can find all the four forms of cost centers in a business organization. However, both the number and the type of cost centers depend upon a number of factors as already identified. But care should be taken while forming cost centers, to ensure that costs can easily be identified with, and charged to, the cost centers. Otherwise, the very purpose of having a number of cost centers in a business entity will be defeated.

### **Cost Audit**

Cost audit is defined as the verification of the correctness of cost accounts and of the adherence to the cost accounting principles, plans and procedures. The important purposes of cost audit are:

- To verify that cost accounts are maintained in accordance with the cost accounting Principles,
- To ensure that the prescribed routines and procedures are being adhered to,
- To protect management against errors of principles, fraud misappropriation, and negligence of duty.

### **Cost Reporting**

Cost reporting is a formal communication which moves upward. The word "cost report" is used for the factual communication by a lower level to higher level of authority. The term cost reporting to management refers to the formal system whereby through reports relevant information is constantly fed to the management. Cost reporting has now become a specialized function. Cost reporting is an important output of cost accounting function. Cost accountant is a custodian of factual data regarding cost of materials, labour, overhead, etc., and therefore, cost accountant provides a useful information

services. Depending on the size of business, cost information may be collected and communicated to the management by cost accountant himself or the cost information manager.

### Cost Analysis

Cost analysis provides a method for assessing the financial strengths and weakness of the company using information found in its cost accounts and cost statements. Such an analysis can be performed by analysts who work for the company. The objective of cost analysis is to gain an understanding of the company's different types of cost in detailed manner, which in turn, can serve as a the basis for decision making.

The importance of cost analysis can hardly need any emphasis. In developing countries like India, which is striving for rapid socio economic transformation through the effective utilization of available resources, the cost analysis gets added significance. The cost analysis not only helps in pin-pointing the deviations from goal achievements but also guides in ensuring the effective and efficient utilization of available resources. It helps in diagnosing the economic health of a company from the point of view of both internal and external parties, who are one way or other, have their stake in the company.

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