

## Unit 4: Cost Analysis and Decision Making

### Chapter 10

#### Classification of Costs

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Classification of Costs essentially means the grouping of costs according to their similar characteristics. In costing there are several ways to classify costs as per their nature, functions, traceability etc. Here we will be discussing on various forms of classifications.

##### **I. Classification by Nature**

This is the analytical classification of costs. There are three broad categories as per this classification, namely Labor Cost, Materials Cost and Expenses. These heads make it easier to classify the costs in a cost sheet. They help ascertain the total cost and determine the cost of the work-in-progress.

1. **Material Costs:** Material costs are the costs of materials used in the production of goods. Material costs is further divided into raw material costs, spare parts, costs of packaging material etc.
2. **Labor Costs:** Labor costs consists of the salary and wages paid to permanent and temporary employees in the pursuit of the manufacturing of the goods
3. **Expenses:** All other expenses associated with making and selling the goods or services.

##### **II. Classification by Functions**

This is the functional classification of costs. This classification follows the pattern of basic managerial activities of the organization. The grouping of costs is according to the broad divisions of functions such as production, administration, selling etc.

- **Production Costs:** All costs concerned with actual manufacturing or construction of the goods
- **Commercial Costs:** Total costs of the operation of an enterprise other than the manufacturing costs. It includes the administration costs, selling and distribution costs etc.

##### **III. Classification by Traceability**

This is one of the most important classification of costs, into direct costs and indirect costs. This classification is based on the degree of traceability to the final product of the concern.

- **Direct Costs:** Direct costs are easily identified with a specific cost unit or cost centers. Some of the most basic examples are the materials used in the manufacturing of a product or the labor involved with the production process.
- **Indirect Costs:** These costs are incurred for various purposes, i.e. between many cost centers or units. Hence, it cannot be easily identified to one particular cost center. Take for example the rent of the building or the salary of the manager which may not be able to accurately determine how to ascertain such costs to a particular cost unit.

#### **IV. Classification by Normality**

This classification determines the costs as normal costs and abnormal costs. The norms of normal costs are the costs that usually occur at a given level of output, under the same set of conditions in which this level of output happens.

- Normal Costs: This is a part of the cost of production and a part of the costing profit and loss. These are the costs that the firm incurs at the normal level of output in standard conditions.
- Abnormal Costs: These costs are not normally incurred at a given level of output in conditions in which normal levels of output occur. These costs are charged to the profit and loss account, they are not a part of the cost of production.

#### **V. Classification by Managerial Decision Making**

**Marginal Cost:** Marginal cost is the aggregate of variable costs, i.e. prime cost plus variable overhead. Marginal cost per unit is the change in the amount at any given volume of output by which the aggregate cost changes if the volume of output is increased or decreased by one unit. For determining marginal cost, semi-variable costs, if any, are segregated into fixed and variable cost. Then, variable costs plus the variable part of semi-variable costs is the total marginal cost for the volume of production in consideration.

**Differential Cost:** Differential Cost is determined by using the principle which highlights the points of differences in costs by adoption of various alternatives. This technique is used in export pricing, new products and pricing goods sought to be promoted in new markets, either within the country or outside. The algebraic difference between the relevant costs at two levels of activities is the differential cost. When the level of activity is increased, the differential cost is known as incremental cost and when the level of activity is decreased, the decrease in cost is known as decremental cost.

**Opportunity Cost:** Opportunity Cost is the value of the alternatives foregone by adopting a particular strategy or employing resources in specific manner. It is the return expected from an investment other than the present one. The opportunity cost is considered for selection of a project or justification of investments, studying viability of an investment option.

**Replacement Costs:** Replacement Cost is the cost of an asset in the current market for the purpose of replacement. Replacement cost is generally used for determining the optimum time of replacement of an equipment or machine in consideration of maintenance cost of the existing one and its productive capacity. Relevant Costs are costs relevant for a specific purpose or situation. In the context of decision making relating to a specific issue, only those costs which are relevant are considered. A particular cost item may be relevant in a decision making and may be irrelevant in some other decision making situation. For example, present depreciated cost of machine is relevant in case of decision of its sale but it is irrelevant in case of decision of its replacement.

**Imputed Costs:** Imputed Costs are hypothetical or notional costs, not involving cash outlay, computed only for the purpose of decision making. Imputed costs are similar to opportunity costs. Interest on internally generated fund, which is not actually paid is an example of imputed cost.

**Sunk Costs:** Sunk Costs are historical costs which are incurred i.e. 'sunk' in the past and are not relevant to the particular decision making problem being considered. Sunk costs are those that have been incurred for a project and which will not be recovered if the project is terminated.

**Normal Costs:** Normal Cost is a cost that is normally incurred at a given level of output in the conditions in which that level of output is achieved. Normal cost includes those items of cost which occur in the normal condition of production process or in the normal environment of the business. The normal idle time is to be included in the ascertainment of normal cost.

**Abnormal Costs:** Abnormal Cost is an unusual or a typical cost whose occurrence is usually irregular and unexpected and due to some abnormal situation of the production. Abnormal cost arises due to idle time for some heavy break down or abnormal process loss. They are not considered in the cost of production for decision making and charged to profit & loss account.

**Avoidable Costs:** Avoidable Costs are those costs which under given conditions of performance efficiency should not have been incurred. Avoidable costs are logically associated with some activity or situation and are ascertained by the difference of actual cost with the happening of the situation and the normal cost. When spoilage occurs in manufacture in excess of normal limit, the resulting cost of spoilage is avoidable cost. Cost variances which are controllable may be termed as avoidable cost.

**Unavoidable Costs:** Unavoidable Costs are inescapable costs which are essentially to be incurred, within the limits or norms provided for. It is the cost that must be incurred under a programme of business restriction. It is fixed in nature and inescapable.

## **VI. Classification by nature of production process**

**Batch Costs:** Batch Cost is the aggregate cost related to a cost unit which consist of a group of similar articles which maintain its identity throughout one or more stages of production.

**Process costs:** When the production process is such that goods are produced from a sequence of continuous or repetitive operations or processes, the cost incurred during a period is considered as process cost. The process cost per unit is derived by dividing the process costs by number of units produced in the process during the period. Accounts are maintained for cost of a process for a period. The average cost per unit produced during the period is process cost per unit.

**Operation Costs:** Operation Cost is the cost a specific operation involved in a production process or business activity. When there are distinctly separate operations involved in a process, cost for each operation is found out for effective control mechanism.

**Operating Costs:** Operating Cost is the cost incurred in conducting a business activity. Operating costs refer to the cost of undertakings which do not manufacture any product but which provide services.

**Contract Costs:** Contract cost is the cost of a contract with some terms and condition of adjustment agreed upon between the contractee and the contractor.

**Joint Costs:** Joint Costs are the common cost of facilities or services employed in the output of two or more simultaneously produced or otherwise closely related operations, commodities or services. When a production process is such that from a set of same input, two or more

distinguishably different products are produced together, products of greater importance are termed as joint products and products of minor importance are termed as by-products and the costs incurred prior to the point of separation of the products are termed as Joint Costs. For example, in a petroleum refinery industry, petrol, diesel oil, kerosene oil, naphtha, tar etc are produced jointly in the refinery process.

**By-Product Costs:** By-Product Cost is the cost assigned to the by-products.

## **VII. Classification by time**

**Historical Costs:** Historical Costs are the actual costs of acquiring assets or producing goods or services. They are 'postmortem' costs ascertained after they have been incurred and they represent the cost of actual operational performance. Historical costing system follows a system of accounting to which all values (in revenue and capital accounts) are based on costs actually incurred or as relevant from time to time.

**Pre-determined Costs:** Pre-determined Costs for a product are determined in advance of production, on the basis of a specification of all the factors affecting cost and cost data. Pre-determined costs may be either standard or estimated.

**Standard Costs:** A predetermined norm applied as a scale of reference for assessing actual cost, whether these are more or less. The standard cost serves as a basis of cost control and as a measure of productive efficiency when ultimately posed with an actual cost. Standard costs are used to compare the actual costs with the standard cost with a view to determine the variances, if any, and analyse the causes of variances and take proper measure to control them.

**Estimated Costs:** Estimated Costs of a product are prepared in advance prior to the performance of operations or even before the acceptance of sale orders. Estimated cost is found with specific reference to product in question, and activity level of the plant. It has no link with actual and hence it is assumed to be less accurate than the standard cost.