CA. Pranav Popat

→ A commerce graduate and first attempt Chartered Accountant, Pranav is one the youngest CA Faculties in India. He loves Public Speaking and motivating students. His unique approach of teaching helps commerce students to get rid of “MATHS PHOBIA”.

→ Currently, he teaches Mathematics, Statistics & Logical Reasoning (Foundation Level CA/CS) and Cost/Management Accounting (CA Inter). Students admire him for creating very interactive learning environment in the classroom which helps them to get more connected to the subject practically.

→ He worked with Wipro Limited for 2 years in the area of cost control and deal pricing. In his 3 years practical training, he earned exposure in the field of Auditing, Industrial Implementation and other Financial Services for various corporate as well as PSU clients.

→ His Motto in Life: When life puts you in trouble, don’t say WHY ME? Just say TRY ME!!!!

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Elements of Cost

(i) **Direct Materials:** Materials which are present in the finished product (cost object) or can be economically identified in the product are called direct materials. For example, cloth in dress making; materials purchased for a specific job etc. However, in some cases a material may be direct but it is treated as indirect, because it is used in small quantities, it is not economically feasible to identify that quantity and those materials which are used for purposes ancillary to the business.

(ii) **Direct Labour:** Labour which can be economically identified or attributed wholly to a cost object is called direct labour. For example, employee engaged on the actual production of the product or in carrying out the necessary operations for converting the raw materials into finished product.

(iii) **Direct Expenses:** It includes all expenses other than direct material or direct labour which are specially incurred for a particular cost object and can be identified in an economically feasible way. For example, hire charges for some special machinery, cost of defective work.

(iv) **Indirect Materials:** Materials which do not normally form part of the finished product (cost object) are known as indirect materials. These are —
   a. Stores used for maintaining machines and buildings (lubricants, cotton waste, bricks etc.)
   b. Stores used by service departments like power house, boiler house, canteen etc.

(v) **Indirect Labour:** Labour costs which cannot be allocated but can be apportioned to or absorbed by cost units or cost centres is known as indirect labour. Examples of indirect employees includes foreman and supervisors; maintenance workers; etc.

(vi) **Indirect Expenses:** Expenses other than direct expenses are known as indirect expenses, that cannot be directly, conveniently and wholly allocated to cost centres. Factory rent and rates, insurance of plant and machinery, power, light, heating, repairing, telephone etc., are some examples of indirect expenses.

(vii) **Overheads:** It is the aggregate of indirect material costs, indirect labour costs and indirect expenses. The main groups into which overheads may be subdivided are the following:
   a. **Production or Works Overheads:** Indirect expenses which are incurred in the factory and for the running of the factory. E.g.: rent, power etc.
b. **Administration Overheads**: Indirect expenses related to management and administration of business. E.g.: office rent, lighting, telephone etc.

c. **Selling Overheads**: Indirect expense incurred for marketing of a commodity. E.g.: Advertisement expenses, commission to sales persons etc.

d. **Distribution Overheads**: Indirect expense incurred for dispatch of the goods E.g.: warehouse charges, packing(secondary) and loading charges.

**Scope of Costing**

(i) **Costing**: Costing is the technique and process of ascertaining costs of products or services. The cost ascertainment procedure is governed by some cost accounting principles and rules. Generally, cost is ascertained using some arithmetical process.

(ii) **Cost Accounting**: This is a process of accounting for cost which begins with the recording of expenditure and ends with the preparation of periodical statement and reports for ascertaining and controlling cost. Cost Accounting is a formal mechanism of cost ascertainment.

(iii) **Cost Analysis**: It involves the process of finding out the factors responsible for variance in actual costs from the budgeted costs and accordingly fixation of responsibility for cost differences. This also helps in better cost management and strategic decisions.

(iv) **Cost Comparisons**: Cost accounting also includes comparisons of cost from alternative courses of action such as use of different technology for production, cost of making different products and activities, and cost of same product/service over a period of time.

(v) **Cost Control**: It involves a detailed examination of each cost in the light of advantage received from the incurrence of the cost. Thus, we can state that cost is analyzed to know whether cost is not exceeding its budgeted cost and whether further cost reduction is possible or not.

(vi) **Cost Reports**: This is the ultimate function of cost accounting. These reports are primarily prepared for use by the management at different levels. Cost Reports helps in planning and control, performance appraisal and managerial decision making.
(vii) **Statutory Compliances:** Maintaining cost accounting records as per the rules prescribed by the statute to maintain cost records relating to utilization of materials, labour and other items of cost as applicable to the production of goods or provision of services as provided in the Act and these rules.

**Cost Objects**

Cost object is anything for which a separate measurement of cost is required. Cost object may be a product, a service, a project, a customer, a brand category, an activity, a department or a programme etc.

**Examples of Cost Object are**

<table>
<thead>
<tr>
<th>Product</th>
<th>Smart phone, Tablet computer, SUV Car, Book etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>An airline flight from Delhi to Mumbai, Concurrent audit assignment, Utility bill payment facility etc.</td>
</tr>
<tr>
<td>Project</td>
<td>Metro Rail project, Road projects etc.</td>
</tr>
<tr>
<td>Activity</td>
<td>Quality inspection of materials, Placing of orders etc</td>
</tr>
<tr>
<td>Process</td>
<td>Refinement of crudes in oil refineries, melting of billets or ingots in rolling mills etc.</td>
</tr>
<tr>
<td>Department</td>
<td>Production department, Finance &amp; Accounts, Safety etc.</td>
</tr>
</tbody>
</table>

**Cost Units**

It is a unit of product, service or time (or combination of these) in relation to which costs may be ascertained or expressed.

Cost units are usually the units of physical measurement like number, weight, area, volume, length, time and value

**Examples**

<table>
<thead>
<tr>
<th>Industry or Product</th>
<th>Cost Unit Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>Number</td>
</tr>
<tr>
<td>Cement</td>
<td>Ton/ per bag etc.</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Litre, gallon, kilogram, ton etc.</td>
</tr>
<tr>
<td>Power</td>
<td>Kilo-watt hour (kWh)</td>
</tr>
<tr>
<td>Steel</td>
<td>Ton</td>
</tr>
<tr>
<td>Transport</td>
<td>Passenger- kilometer</td>
</tr>
<tr>
<td>Gas</td>
<td>Cubic feet</td>
</tr>
</tbody>
</table>
Users of Cost and Management Accounting

Internal users:

(i) **Managers** - The managers use the information
   a. to know the cost of a cost object and cost centre
   b. to price for the product or service
   c. to measure and evaluate performance of responsibility centres
   d. to the know the profitability - product-wise, department-wise, customer-wise etc.
   e. to evaluate the strategic options and to make decisions

(ii) **Operational level staffs** - The operational level staffs like supervisors, foreman, team leaders are requiring information
   a. to know the objectives and performance goals for them
   b. to know product and service specifications like volume, quality and process etc.
   c. to know the performance parameters against which their performance is measured and evaluated.
   d. to know divisional (responsibility centre) profitability etc.

(iii) **Employees** - Employees are concerned with the information related with time and attendance, incentives for work, performance standards etc.

External Users:

(i) **Regulatory Authorities** - Regulatory Authorities are concerned with cost accounting data and information for different purpose which includes tariff determination, providing subsidies, rate fixation etc. To do this the regulatory bodies require information on the basis of some standards and format in this regard.

(ii) **Auditors** - The auditors while conducting audit of financial accounts or for some other special purpose audit like cost audit etc. requires information related with costing and reports reviewed by management etc.

(iii) **Shareholders** - Shareholders are concerned with information that effect their investment in the entity. Management communicate the shareholders through periodic communiqué, annual reports etc. regarding new orders received, product expansion, market share for products etc.

(iv) **Creditors and Lenders** - Creditor and lenders are concerned with data and information which affects an entity’s ability to serve lenders or creditors. For example, any financial institutions which provides loan to an entity against book debts and stocks are more concerned with regular reporting on net debt position and stock balances.
Objectives of cost and management accounting

(i) Ascertainment of Cost: The main objective of cost accounting is accumulation and ascertainment of cost. Costs are accumulated, assigned and ascertained for each cost object.

(ii) Determination of Selling Price and Profitability: The cost accounting system helps in determination of selling price and thus profitability of a cost object. Though in a competitive business environment selling prices are determined by external factors but cost accounting system provides a basis for price fixation and rate negotiation.

(iii) Cost Control: Maintaining discipline in expenditure is one of the main objectives of a good cost accounting system. It ensures that expenditures are in consonance with predetermined set standard and any variation from these set standards is noted and reported on continuous basis. To exercise control over cost, following steps are followed:

   a. Determination of pre-determined standard or results: Standard cost or performance targets for a cost object or a cost centre is set before initiation of production or service activity. These are desired cost or result that needs to be achieved.

   b. Measurement of actual performance: Actual cost or result of the cost object or cost centre is measured. Performance should be measured in the same manner in which the targets are set i.e. if the targets are set up operation-wise, and then the actual costs should also be collected and measured operation-wise to have a common basis for comparison.

   c. Comparison of actual performance with set standard or target: The actual performance so measured is compared against the set standard and desired target. Any deviation (variance) between the two is noted and reported to the appropriate person or authority.

   d. Analysis of variance and action: The variance in results so noted are further analyzed to know the reasons for variance and appropriate action is taken to ensure compliance in future. If necessary, the standards are further amended to take developments into account.

(iv) Cost Reduction: It may be defined "as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for the use intended or diminution in the quality of the product."

Cost reduction is an approach of management where cost of an object is believed to be further reduced. No cost is termed as lowest and every possibility of cost reduction is explored. To do cost reduction, the following action is taken:

   a. Each activity within an entity is segmented to analyze and identify value added and non-value added activities. All non-value added activities are eliminated without affecting the
essential characteristics of the product or process. Value chain Analysis, a strategic tool, developed by Michael Porter, is one of the methods to do value analysis.

b. Conducting continuous research and study to know better way to do anything

The three-fold assumptions involved in the definition of cost reduction may be summarized as under:

a. There is a saving in unit cost.
b. Such saving is of permanent nature.
c. The utility and quality of the goods and services remain unaffected, if not improved.

(v) Assisting management in decision making: Cost and Management accounting by providing relevant information, assist management in planning, implementing, measuring, controlling and evaluation of various activities. A robust cost and management accounting system not only provides information internal to industry but external also.

(vi) Difference between Cost Control and Cost Reduction

<table>
<thead>
<tr>
<th></th>
<th>Cost Control</th>
<th>Cost Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost control aims at</td>
<td>maintaining the costs in accordance with the established standards.</td>
<td>Cost reduction is concerned with reducing costs. It challenges all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>standards and endeavors to better them continuously</td>
</tr>
<tr>
<td>Cost control seeks to</td>
<td>attain(^2) lowest possible cost under existing conditions</td>
<td>Cost reduction recognizes no condition as permanent, since a change</td>
</tr>
<tr>
<td>In case of cost control, emphasis is on past and present</td>
<td></td>
<td>will result in lower cost.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In case of cost reduction, it is on present and future.</td>
</tr>
<tr>
<td></td>
<td>Cost control is a preventive Function</td>
<td>Cost reduction is a corrective function. It operates even when an</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficient cost control system exists.</td>
</tr>
<tr>
<td></td>
<td>Cost control ends when targets are achieved.</td>
<td>Cost reduction has no visible end</td>
</tr>
</tbody>
</table>

\(^1\) Try hard to do or achieve something.
\(^2\) Attain means to reach
Responsibility Centres:

Management delegates its responsibility and authority to various departments or persons to have a better control over the organization. These departments or persons are known as responsibility centres and are held responsible for performance in terms of expenditure, revenue, profitability and return on investment.

Performance of these responsibility centres are measured against some set standards (input-output ratio, budgets etc.) and evaluated against organisational goal and performance targets. There are four types of responsibility centres:

(i) **Cost Centres**: The responsibility centre which is held accountable (answerable) for incurrence of costs which are under its control. The performance of this responsibility centre is measured against pre-determined standards or budgets.

Example: Purchasing Department

The cost centres are of two types:

- **Standards Cost Centres**: Cost Centre where input-output ratio is clearly identifiable. The actual cost for inputs is compared with the standard cost [cost that should be incurred for the given output]. Example: Raw Material cost in Production department.

- **Discretionary Cost Centre**: The cost centre whose output cannot be measured in financial terms, thus input-output ratio cannot be defined. The cost of input is compared with allocated budget for the activity. Example: Research & Development department, Advertisement department where output of these departments cannot be measured with certainty and co-related with cost incurred on inputs.

(ii) **Revenue Centres**: The responsibility centres which are accountable for generation of revenue for the entity. Sales Department for example, is responsible for achievement of sales target and revenue generation. Though, revenue centres does not have control on expenditures it incurs but some time expenditures related with selling activities like commission to sales person etc. are incurred by revenue centres.

(iii) **Profit Centres**: These are the responsibility centres which have both responsibility of generation of revenue and incurrence of expenditures. Since, managers of profit centres are accountable for both costs as well as revenue, profitability is the basis for measurement of
performance of these responsibility centres. Examples of profit centres are decentralised branches of an organisation.

(iv) **Investment Centres:** These are the responsibility centres which are not only responsible for profitability but also have the authority to make capital investment decisions. The performance of these responsibility centres are measured on the basis of Return on Investment (ROI) besides profit. Examples: SBU (strategic business unit) for an MNC (multinational company), PSUs for Governments.

**Classification of Costs:**

- **By Functions:**
  - Direct Materials
  - Direct Employees (Labor)
  - Direct Expenses
  - Indirect Material
  - Indirect Labour
  - Indirect Expenses
  - Factory Overheads
  - Administration Overheads
  - Selling and Distribution Overheads
  - Prime Cost
  - Factory Cost or Works Cost
  - Cost of Goods Sold
  - Cost of Sales

(i) **By Elements**

   Already Studied

(ii) **By Variability and Behavior:**

   a. **Fixed costs:** These are the costs which are incurred for a period, and which, within certain output and turnover limits, tend to be unaffected by fluctuations in the levels of activity (output or turnover). They do not tend to increase or decrease with the changes in output. For example, rent, insurance of factory building etc., remain the same for different levels of production.
b. **Variable Costs:** These costs tend to vary with the volume of activity. Any increase in the activity results in an increase in the variable cost and vice-versa. For example, cost of direct labor, etc.

![Variable Cost Graph](image)

![Semi-variable Cost Graph](image)

c. **Semi-variable costs**— These costs contain both fixed and variable components and are thus partly affected by fluctuations in the level of activity. Examples of semi-variable costs are telephone bills, gas and electricity etc. Such costs are depicted graphically as follows:

(iii) **By Controllability:**

a. **Controllable Costs:** - Cost that can be controlled, typically by a cost, profit or investment centre manager is called controllable cost. Controllable costs incurred in a particular responsibility centre can be influenced by the action of the executive heading that responsibility centre. For example, direct costs comprising direct labour, direct material, direct expenses and some of the overheads are generally controllable by the shop level management.

b. **Uncontrollable Costs** - Costs which cannot be influenced by the action of a specified member of an undertaking are known as uncontrollable costs. For example, expenditure incurred by, say, the tool room is controllable by the foreman in-charge of that section but the share of the tool-room expenditure which is apportioned to a machine shop is not to be controlled by the machine shop foreman. **NOTE:** no cost is uncontrollable, it is only in relation to a particular individual that we may specify a particular cost to be either controllable or uncontrollable.
(iv) By Normality:

a. Normal Cost - It is the cost which is normally incurred at a given level of output under the conditions in which that level of output is normally attained.

b. Abnormal Cost - It is the cost which is not normally incurred at a given level of output in the conditions in which that level of output is normally attained.

(v) Costing Terms used for Decision Makings

a. Pre-determined Cost - A cost which is computed in advance before production or operations start, on the basis of specification of all the factors affecting cost, is known as a pre-determined cost.

b. Standard Cost - A pre-determined cost, which is calculated from management’s ‘expected standard of efficient operation’ and the relevant necessary expenditure. It may be used as a basis for price fixation and for cost control through variance analysis.

c. Marginal Cost - The amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit.

d. Estimated Cost - Kohler defines estimated cost as “the expected cost of manufacture, or acquisition, often in terms of a unit of product computed on the basis of information available in advance of actual production or purchase”. Estimated costs are prospective costs since they refer to prediction of costs.

e. Differential Cost - (Incremental and decremental costs). It represents the change (increase or decrease) in total cost (variable as well as fixed) due to change in activity level, technology, process or method of production, etc. For example, if any change is proposed in the existing level or in the existing method of production, the increase or decrease in total cost or in specific elements of cost as a result of this decision will be known as incremental cost or decremental cost.
f. **Imputed Costs** - These costs are **notional costs** which do not involve any cash outlay. Interest on capital, the payment for which is not actually made, is an example of imputed cost. These costs are similar to opportunity costs.

g. **Capitalized Costs** - These are costs which are similar to expenses but recorded as addition to asset cost. Example, installation expenses on the erection of a machine are added to the cost of a machine.

h. **Product Costs** - These are the costs which are associated with the purchase and sale of goods (in the case of merchandise inventory). In the production scenario, such costs are associated with the acquisition and conversion of materials and all other manufacturing inputs into finished product for sale.

i. **Opportunity Cost** - This cost refers to the value of sacrifice made or benefit of opportunity foregone in accepting an alternative course of action. For example, a firm financing its expansion plans by withdrawing money from its bank deposits. In such a case the loss of interest on the bank deposit is the opportunity cost for carrying out the expansion plan.

j. **Out-of-pocket Cost** - It is that portion of total cost, which involves cash outflow. This cost concept is a short-run concept and is used in decisions relating to fixation of selling price in recession, make or buy, etc. Out-of-pocket costs can be avoided or saved if a particular proposal under consideration is not accepted.

k. **Shut down Costs** - Those costs, which continue to be, incurred even when a plant is temporarily shut-down e.g. rent, rates, depreciation, etc. These costs cannot be eliminated with the closure of the plant. In other words, all fixed costs, which cannot be avoided during the temporary closure of a plant, will be known as shut down costs.

l. **Sunk Costs** - Historical costs incurred in the past are known as sunk costs. They play no role in decision making in the current period. For example, in the case of a decision relating to the replacement of a machine, the written down value of the existing machine is a sunk cost and therefore, not considered.
m. **Absolute Cost** - These costs refer to the cost of any product, process or unit in its totality. When costs are presented in a statement form, various cost components may be shown in absolute amount or as a percentage of total cost or as per unit cost or all together. Here the costs depicted in absolute amount may be called absolute costs and are base costs on which further analysis and decisions are based.

n. **Discretionary Costs** - Such costs are not tied to a clear cause and effect relationship between inputs and outputs. They usually arise from periodic decisions regarding the maximum outlay to be incurred. Examples include advertising, public relations, executive training etc.

o. **Period Costs** - These are the costs, which are not assigned to the products but are charged as expenses against the revenue of the period in which they are incurred. All non-manufacturing costs such as general & administrative expenses, selling and distribution expenses are recognised as period costs.

p. **Engineered Costs** - These are costs that result specifically from a clear cause and effect relationship between inputs and outputs. The relationship is usually personally observable. Examples of inputs are direct material costs, direct labour costs etc. Examples of output are cars, computers etc.

q. **Explicit Costs** - These costs are also known as out of pocket costs and refer to costs involving immediate payment of cash. Salaries, wages, postage and telegram, printing and stationery, interest on loan etc. are some examples of explicit costs involving immediate cash payment.

r. **Implicit Costs** - These costs do not involve any immediate cash payment. They are not recorded in the books of account. They are also known as economic costs.