COST ACCOUNTING

UNIT 2

COST OBJECT

Cost object may be defined as anything for which a separate measurement of cost is desired. The following examples will further enhance the understanding:

Examples of cost object are:

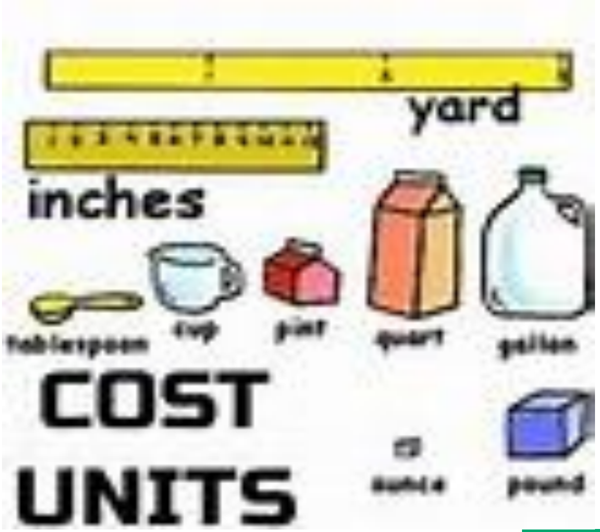
Product	Smart phone, Tablet computer, SUV Car, Book etc.
Service	An airline flight from Delhi to Mumbai, Concurrent audit assignment, Utility bill payment facility etc.
Project	Metro Rail project, Road projects etc.
Activity	Quality inspection of materials, Placing of orders etc.
Process	Refinement of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

COST DRIVER

Chartered Institute of Management Accountants defines cost driver as an activity which generates cost. A cost driver triggers a change in the cost of an activity and is generally used to assign overhead costs to the number of produced units.

An activity can have more than one cost driver attached to it. For example, a production activity may have a machine, machine operator(s), floor space occupied, power consumed as the associated cost-drivers.

EXAMPLES OF COST DRIVERS		
• Machine Set-ups	• Purchase Orders	• Quality Inspections
• Production Orders	• Shipments	• Maintenance Requests
Power Consumed	Kilometers Driven	Projects or Working Hours
Advertisements or Sales Volume		Product Hours



- A unit of quantity of product, service or time in relation to which costs may be ascertained or expressed.

Industry or Product	Cost Unit Basis
Automobile	Number
Cement	Ton/ per bag etc.
Chemicals	Litre, gallon, kilogram, ton etc.
Power	Kilo-watt hour (kWh)
Steel	Ton
Transport	Passenger- kilometer
Gas	Cubic feet

- Location, person or item of equipment for which cost may be ascertained and used for the purpose of cost control.

Cost centers are primarily of two types:

Personal cost centre

which consists of a person or a group of persons.

Impersonal cost centre

which consists of a location or an item of equipment or group of these.

From functional point of view, cost centres may be of following two types:

Service cost centre

This is that cost centre which are ancillary to and render services to production cost centres. Examples of service cost centres are power house, tool-room, stores department, repair shop, canteen.

Production cost centre

Actual production work takes place. Examples are melting shop, machine department, welding department, finishing shop, etc.

A profit center is a business unit or department within an organization that generates revenues and profits or losses.

Cost estimation

- Value of the cost incurred in the manufacturing of finished goods.
- Helps in fixing the selling price
- Helps in Inventory Reports

cost ascertainment

- Process of collection of expenses
- The production of various products at their different stages of production with such expenses.

cost allocation

- Cost are identifiable directly with some products
- Wages paid to workers of service department can be allocated to the particular department.
- Indirect materials used by a particular department can also be allocated to the department.
- Two basic factors –

(i) Concerned department/product should have caused the cost to be incurred, and

(ii) exact amount of cost should be computable.

cost apportionment

- Cost cannot directly charge to or accurately identifiable with any cost centres.
- The predetermination of suitable basis of apportionment is very important and usually following principles are adopted –

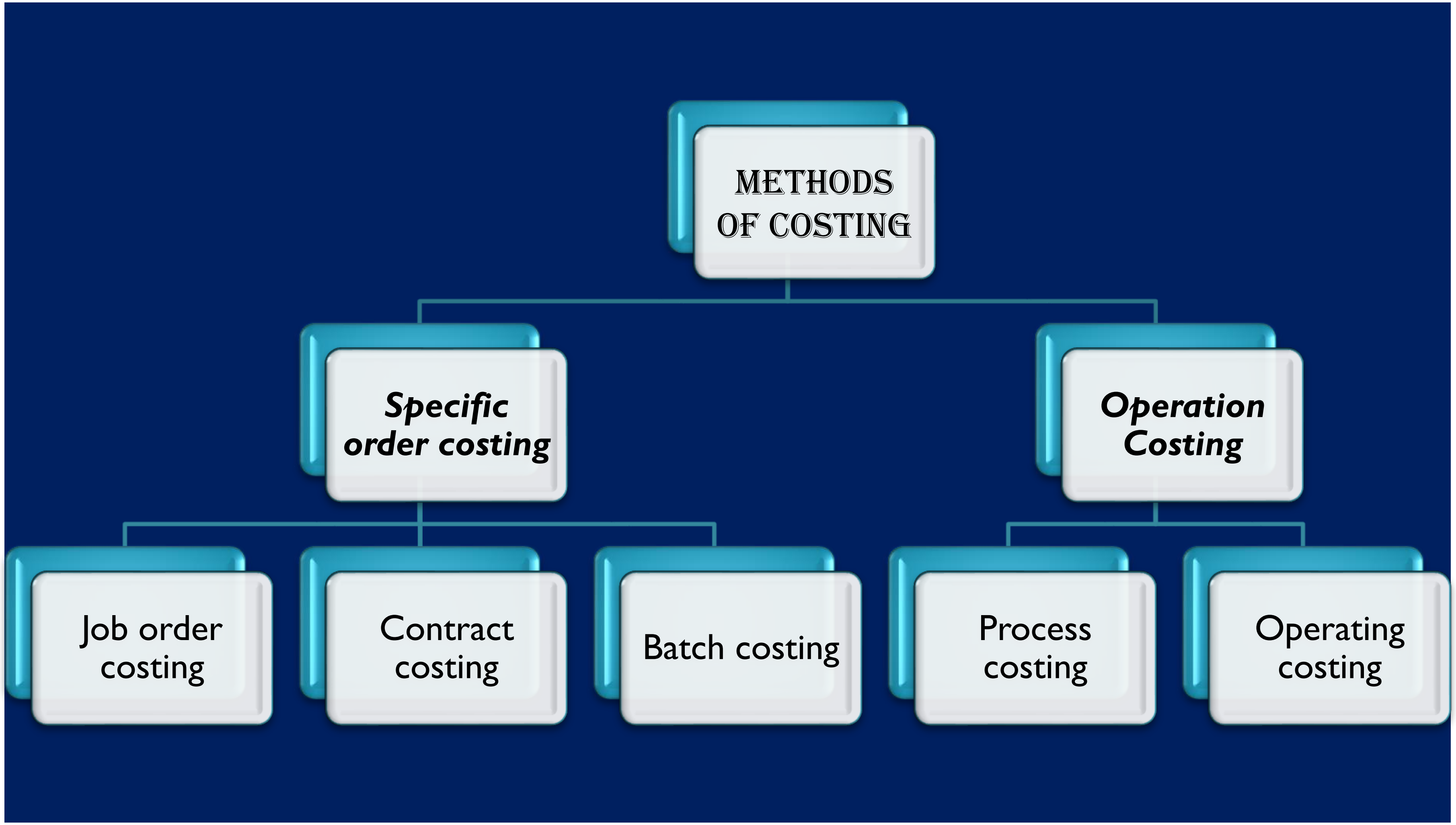
(i) Service or use (ii) Survey method (iii) Ability to bear.

- Reviewed at periodic intervals to improve upon the accuracy of apportionment.

cost reduction and cost control

- Cost Control is defined as the regulation by executive action of the costs of operating an undertaking, particularly where such action is guided by Cost Accounting.
- Cost reduction may be defined as the real and permanent reduction in the unit costs of goods manufactured or services rendered without impairing their suitability for the use intended.
- Reductions due to windfalls, changes in government policy like reduction in taxes or duties, or due to temporary measures taken for tiding over the financial difficulties do not strictly come under the purview of cost reduction.
- At the same time a programme of cost reduction should in no way affect the quality of the products nor should it lower the standards of performance of the business.

CLASSIFICATIONS OF THE COSTING



Methods of the Costing

Job order costing

- useful to analyse the cost of the job not only alone but also to compare with other kind of jobs.
- It paves way through job card to conduct an analysis in the angle of cost factor influence.

Contract costing

- longer gestation period to complete i-e by the civil engineers and mechanical engineers

Methods of the costing (cont..)

Batch costing

- small orders costs are ascertained.
- mostly preferred by the companies or factories
- the manufacture of small articles in the form of batch.
- Each batch considered as a unit cost and exclusively costed.
  - Cost per unit = Cost of the batch divided by Number of units in a batch

METHODS OF THE COSTING (CONT..)

Process costing

- suited for the continuous process of manufacturing of a finished product.
- the inputs for one process from the output of another process.
- highlights the cost of the specific process, known as finally continuous costing.

Operation costing

- suitable method of costing for the industries, which manufacture the standard or identical products.

METHODS OF THE COSTING (CONT..)

Service costing

- suitable method for the industries
- applied in the case of service industries viz. transport corporations, municipalities, power supply organisation and so on
- suited to ascertain the cost of rendering service.

TECHNIQUES OF COSTING

Uniform costing

- undertakings for common control and comparison of costs

Marginal costing

- studying the difference in between the fixed and variable cost
- to determine the influence of change in the level of output on the cost per unit.

Historical costing

- the costs of the yester horizon are ascertained

TECHNIQUES OF COSTING (CONT..)

Direct costing	• charging all direct variable and fixed costs which are in relation with the operations, processes or products
Absorption costing	• includes the fixed cost of operations along with the variable cost of production.
Standard costing	• facilitates the firm to determine the deviation in between the actual and standards • to exercise the control of deviations through corrective measures.

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COST CLASSIFICATION

- By nature or Element or Analytical segmentation
- Direct and Indirect cost
- By variability
- By functions
- By controllability
- By normality
- By time
- According to planning and control
- According to Managerial Decisions

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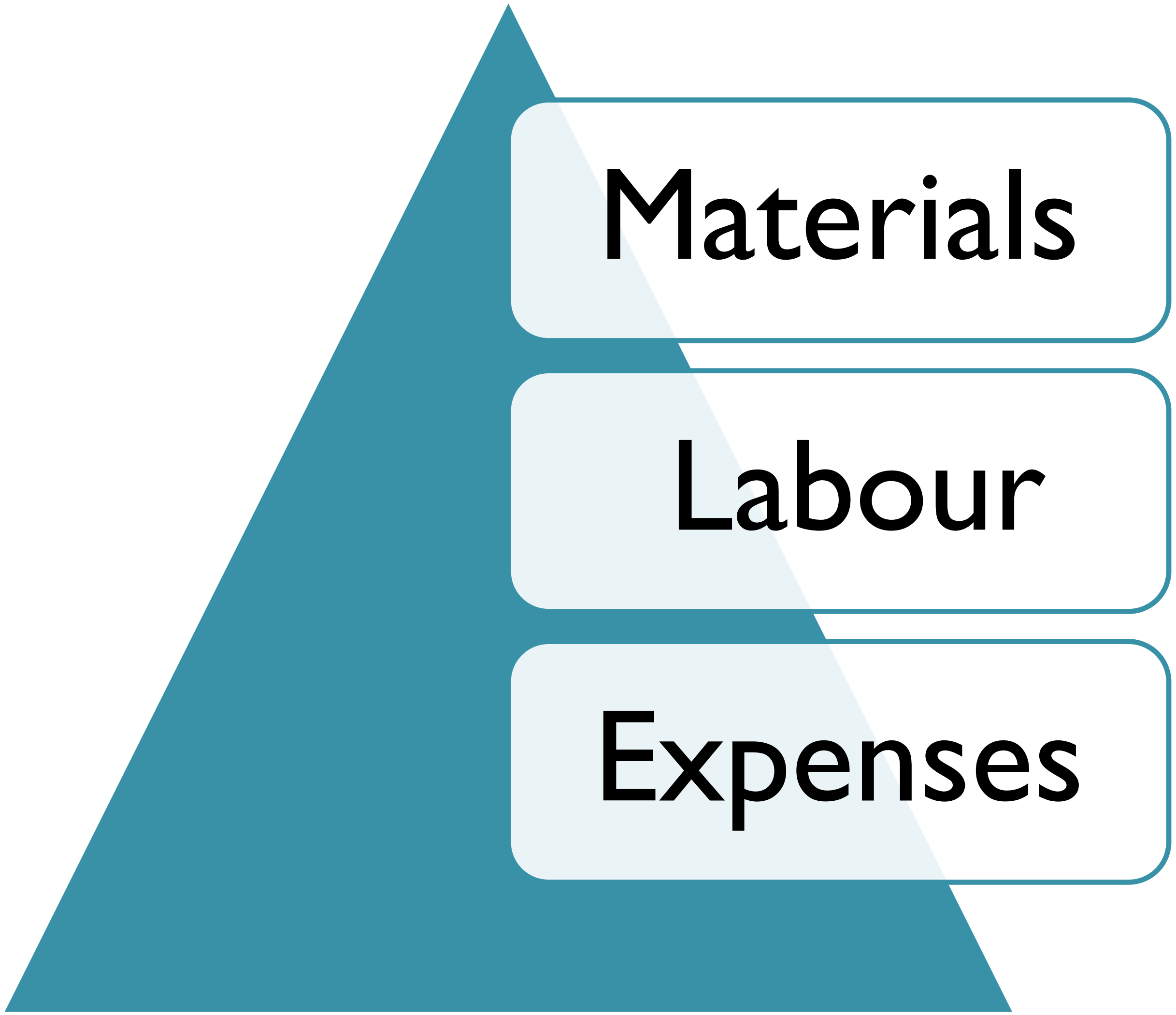
By Nature or Element or Analytical Segmentation



BY NATURE OR ELEMENT OR ANALYTICAL SEGMENTATION:

MATERIAL COST

- Cost of materials used for the manufacture of a product, a particular work order, or provision of a service.
- Example: Cloth for making a dress, stores used for maintaining machines and buildings such as lubricants, cotton waste, bricks etc.

LABOUR COST

- Labour cost is defined as the total expenditure borne by employers in order to employ workers.
- direct costs linked to remuneration for work carried out such as direct remuneration, bonuses
- indirect costs linked to employees, independently of the remuneration paid by the employer, such as direct social benefits, vocational training costs and so on.

EXPENSES

Expense is defined as money expended or cost incurred in a firm's efforts to generate revenue, representing cost of doing business.

They may be in the form of actual cash payments (such as wages and salaries), a computed 'expired' portion (depreciation) of an asset, or an amount taken out of the firm's earnings (such as bad debts).

2. BY FUNCTIONS

1. Production Cost
2. Selling Cost
3. Distribution Cost
4. Administrative Cost
5. Research Cost
6. Development Cost
7. Pre-production Cost
8. Conversion Cost
9. Product Cost

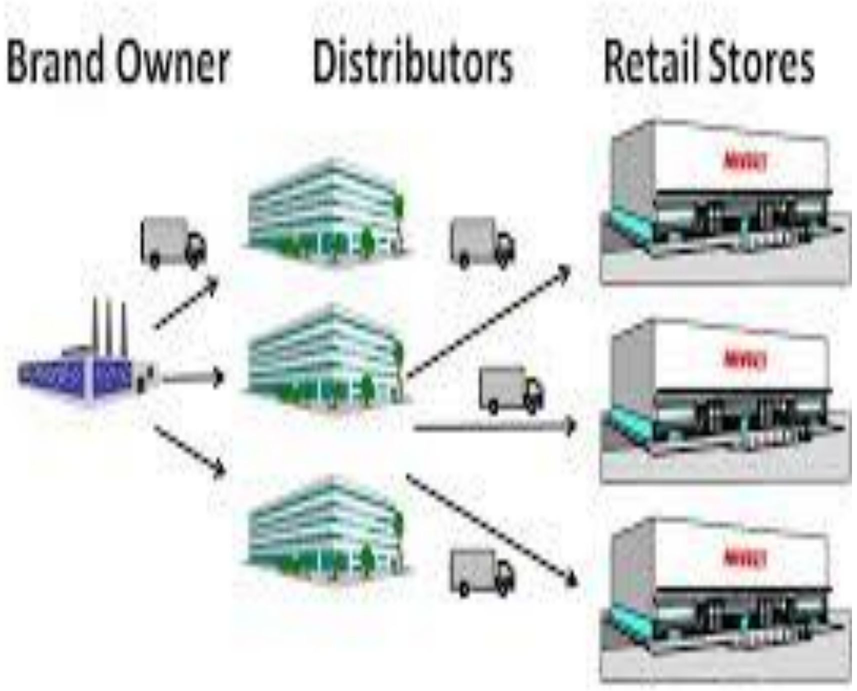
PRODUCTION COST

- the sequence of operations
- supplying materials, labour and services
- primary packing of the product.

SELLING COST

- to create and stimulate demand
- securing orders.

DISTRIBUTION COST



- the sequence of operations
- the packed product available moving articles to and from prospective customers.
- For example: gas, electricity and water industry distribution

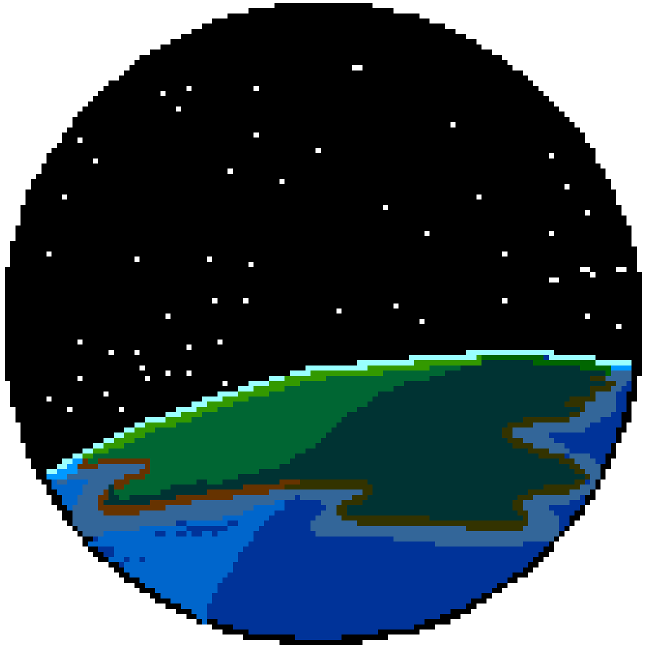
ADMINISTRATIVE COST

- formulating the policy
- directing the organization
- controlling the operations of an undertaking

Research Cost

- researching for new products
- improved products
- new applications of materials, or improved methods.

DEVELOPMENT COST



- the implementation of a decision
- improved product
- to employ a new product
- improved method and ends with commencement of formal production of that product.

PRE-PRODUCTION COST

- trial production run preliminary to formal product.
- to cover all activities prior to production including Research & Development

CONVERSION COST

- Cost of converting raw materials to the finished stage or converting a material from one stage of production to the next.
- any excess material cost or loss of material incurred at the particular stage of production.
- Conversion cost = Total cost – material cost

PRODUCT COST

- inventoriable cost.
- costs which are assigned to the product.
- Direct Materials, Direct Labour and Direct Expenses

DIFFERENCE BETWEEN PRODUCT COST AND PERIOD COST

BASIS FOR COMPARISON	PRODUCT COST	PERIOD COST
Meaning	The cost that can be apportioned to the product is known as Product Cost.	The cost that cannot be assigned to the product, but charged as an expense is known as Period cost.
Basis	Volume	Time
Which cost is regarded as Product / Period Cost?	Variable Cost	Fixed Cost
Are these costs included in inventory valuation?	Yes	No
Comprises of	Manufacturing or Production cost	Non-manufacturing cost, i.e. office & administration, selling & distribution, etc.
Part of Cost of Production	Yes	No
Examples	Cost of raw material, production overheads, depreciation on machinery, wages to labor, etc.	Salary, rent, audit fees, depreciation on office assets etc.

3. By Identifiably

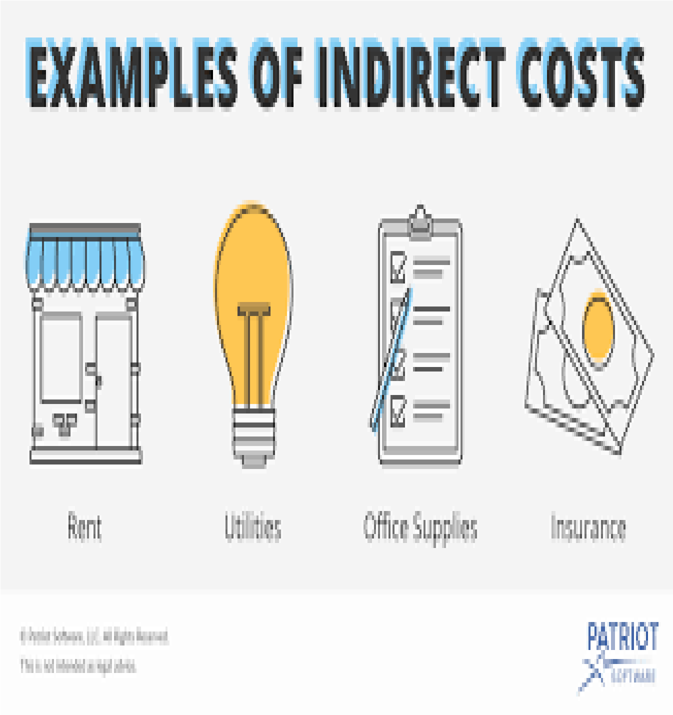
Direct Cost

Indirect Cost

Direct Cost

- direct part in the manufacture of a particular commodity.
- Example: Cost of wood in furniture, cloth in a shirt

INDIRECT COST

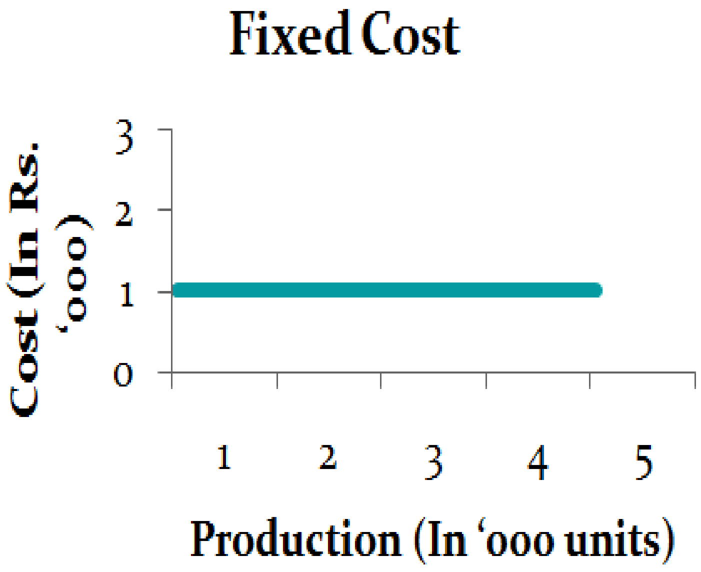


- items which are not directly chargeable to production are known as indirect costs.
- Example: In production, salaries of timekeepers, storekeepers, foremen are paid, certain expenses for running the administration are incurred.

4. By Variability

- Fixed Cost
- Variable Cost
- Semi-variable Cost
- Step Cost

FIXED COST



- The cost remains constant within a given period of time.
- Example: rent, insurance of factory buildings etc. remain the same for different levels of production.

CLASSIFICATION OF FIXED COSTS

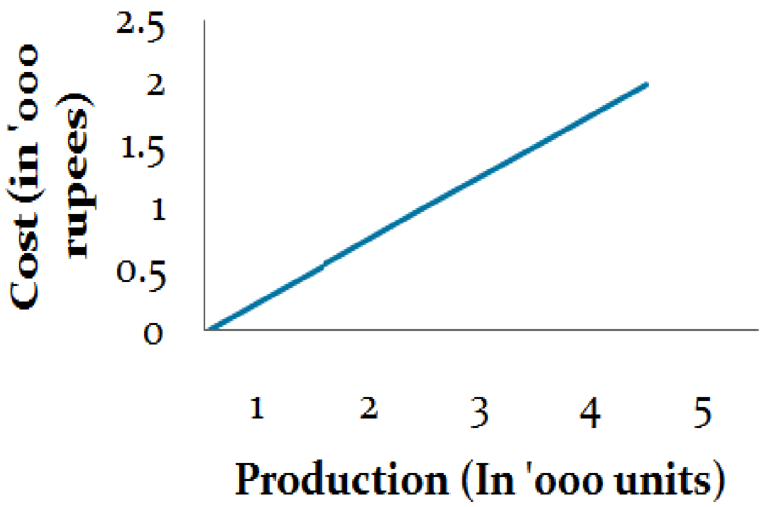
Committed fixed costs

- unavoidable in the short term if the organization has to function. Examples are depreciation, rent etc

Discretionary fixed costs

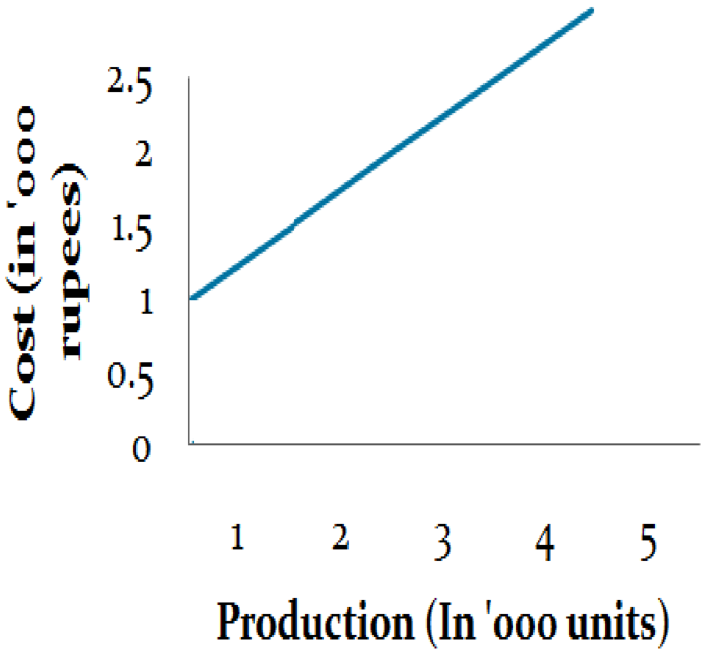
- set at a fixed amount for specific time periods by management . Examples are research and development costs, advertisement and market research expenses.

Variable Cost



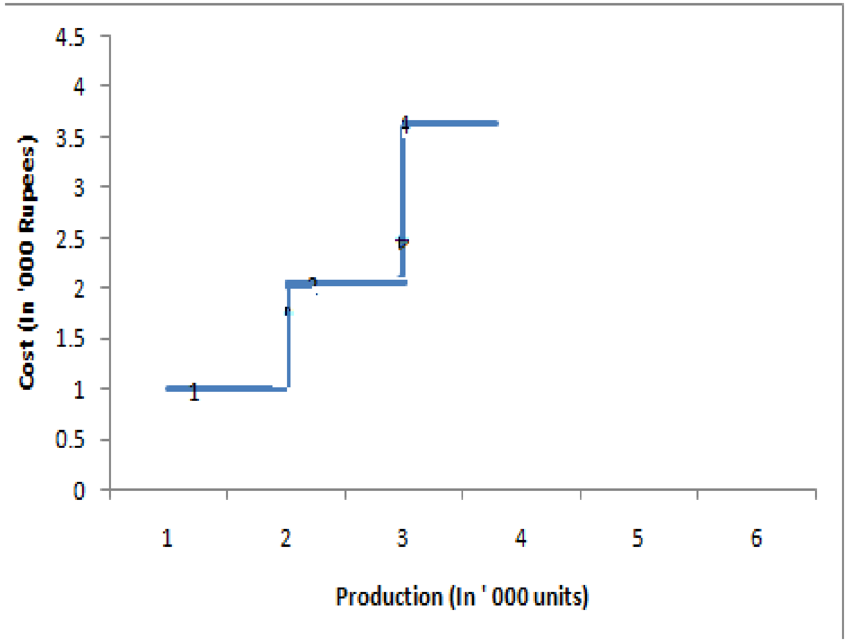
- Costs tend to vary with the volume of output.
- Any increase in the volume of production results in an increase in the variable cost and vice versa.
- Example: cost of material, cost of labour etc.

Semi-Variable Cost



- The cost which does not vary proportionately simultaneously cannot remain stationery at all times
- It can also be called as semi-fixed cost.
- Example: Depreciation, repairs etc.

STEP COSTS



- Certain costs remain fixed over a range of activity
- then jump to a new level as activity changes.
- Example: A foreman is in a position to supervise a given number of employees. Beyond this number it will be necessary to hire a second then a third and so on.

5. BY CONTROLLABILITY

- Controllable Costs
- Uncontrollable costs

CONTROLLABLE COSTS

- The costs which can be influenced by the action of a specified member of an undertaking.
- A business organization is usually divided into a number of responsibility centres and each centre is headed by an executive.
- The executive can thus control the costs incurred in that particular responsibility centre.

UNCONTROLLABLE COSTS

- Costs which cannot be influenced by the action of a specified member of an undertaking.
- Example: Expenditure incurred by the tool room is controllable by the foreman in charge of that section.

6. BY NORMALITY

Normal Costs

Abnormal costs

NORMAL COSTS

- the cost which is normally incurred at a given level of output under the conditions

ABNORMAL COSTS

- the cost which is not normally incurred at a given level of output in the conditions.
- This is charged to Costing P&L A/c

OTHER COSTS

- Product Costs and Period Costs
- Decision making Costs and Accounting Costs
- Relevant and Irrelevant Costs
- Shutdown and Sunk Costs
- Avoidable / Escapable and Unavoidable / Inescapable
- Imputed or Hypothetical Costs
- Differential, Incremental or Decremental Cost
- Out of Pocket Costs
- Opportunity Cost
- Traceable, Untraceable Costs
- Joint Costs and Common Costs

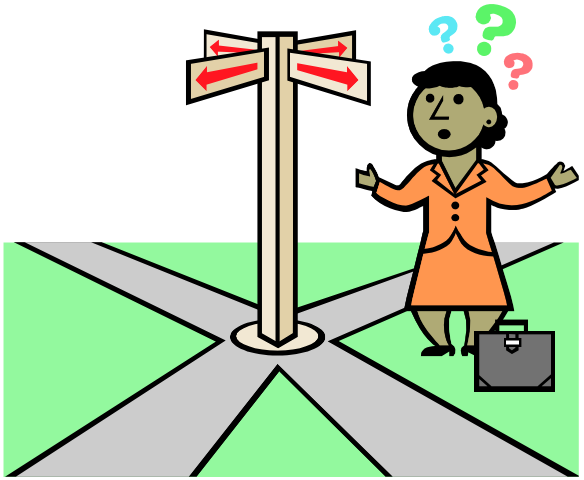
PRODUCT COSTS

Costs which become part of the cost of the product rather than an expense of the period in which they are incurred are called as "Product Costs". In financial statements such costs are treated as assets until the goods they are assigned to are sold. They become an expense at that time. These costs may be fixed as well as variable.

PERIOD COSTS

Costs which are not associated with production are called “Period Costs”. They are treated as an expense of the period in which they are incurred. They may also be fixed as well as variable. Such costs include General Administration costs, Salesman salaries and commission, depreciation on office facilities etc. They are charged against the revenue of the relevant period.

DECISION MAKING COSTS



These are special purpose costs that are applicable only in the situation in which they are compiled. They have no universal application. They need not tie into routine financial accounts. They do not and should not conform to the accounting rules.

ACCOUNTING COSTS

These costs are compiled primarily from financial statements. They have to be altered before they can be used for decision making. Moreover they are historical costs and show what has happened under an existing set of circumstances, while decision making costs are future costs.

Example: Accounting costs may show the cost of the product when the operations are manual, while decision making costs might be calculated to show the costs when the operations are mechanised.

RELEVANT & IRRELEVANT COST

Relevant costs are those costs which would be changed by the managerial decision, while irrelevant costs are those which would not be affected by the decision.

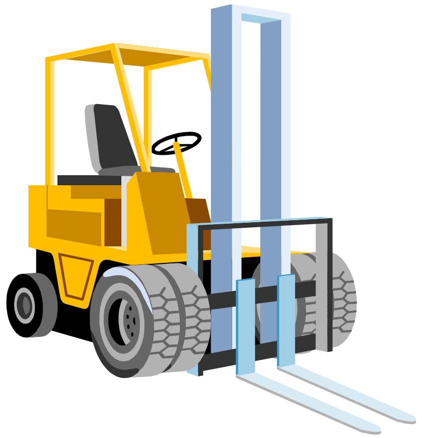
Example: If a manufacturer is considering closing down of an unprofitable retail sales shop, wages payable to the workers of the shop are relevant in this connection since they will disappear on closing down of the shop. But prepaid rent for the shop or unrecovered costs of any equipment which will have to be scrapped, will be irrelevant costs which must be ignored.

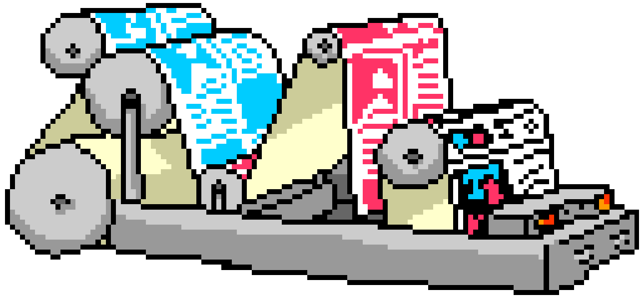
SHUTDOWN COSTS

A manufacturer or an organization rendering service may have to suspend its operations for a period on account of some temporary difficulties such as shortage of raw materials, non availability of labour etc.

During this period though no work is done yet certain fixed costs such as rent and insurance of buildings, depreciation etc. for the entire plant will have to be incurred. Such costs of the idle plant are known as shut down costs.

SUNK COSTS





These are costs which have been created by a decision that was made in the past that cannot be changed by any decision that will be made in the future. Investment in plant & machinery are prime examples of such costs. Since sunk costs cannot be altered by later decisions, they are irrelevant for decision making.

AVOIDABLE AND UNAVOIDABLE

Avoidable costs are those which will be eliminated if a segment of the business with which they are directly related is discontinued. Unavoidable costs are those which will not be eliminated with the segment. Such costs are merely reallocated if the segment is discontinued.

Example: In case a product is discontinued, salary of the factory manager or factory rent cannot be eliminated. It will simply mean that certain other products will have to absorb a higher amount of such overheads. However salary of clerks or bad debts traceable to the product would be eliminated.

AVOIDABLE AND UNAVOIDABLE COST

An **avoidable cost** is a cost that is not incurred if the activity is not performed. For example, supply expenses are avoidable costs. You can simply decide to not buy the supplies, and no expense will be incurred. These costs are often identified as **variable costs**, which vary based on production. If there is no production, there is no cost.

An **unavoidable cost**, on the other hand, is a cost that is still incurred even if the activity is not performed. For example, if a manufacturing plant shuts down, its avoidable costs (i.e. variable costs), like materials or supplies, will be 0, but it still needs to pay for idle equipment, property taxes, lease payments, etc. These costs are often considered **fixed costs**. Fixed costs are expenses that do not depend on production.

IMPUTED OR HYPOTHETICAL COSTS

These are costs which do not involve any cash outlay. They are not included in cost accounts but are important for taking into consideration while making management decisions.

Examples: Interest on internally generated funds, salaries of the proprietor or partner of a partnership firm, rented value of company's own property etc. When two projects require unequal outlays of cash, the management must take into consideration interest on capital for judging the relative profitability of the projects though the company may use internally generated funds for the purpose.

DIFFERENTIAL COSTS

The difference in total costs between two alternatives is termed as 'differential costs'.

In case the choice of an alternative results in increase in total costs, such increase in costs is known as 'incremental costs.'

In case the choice results in decrease in total costs, such decrease in total costs is termed as 'decremental costs'. While assessing the profitability of a proposed change the incremental costs are matched with incremental revenue and vice versa.

OUT-OF-POCKET COST

This means the present or future cash expenditure regarding a certain decision which varies depending upon the nature of decision made.

Example: A company has its own trucks for transporting raw materials and finished products from one place to another. It seeks to replace these trucks by employment of public carrier of goods. In making this decision of course , the depreciation of the trucks is not to be considered, but the management must take into account the present expenditure on fuel, salary to drivers and maintenance. Such costs are termed as out-of-pocket expenses.

OPPORTUNITY COST

This cost refers to the advantage, in measurable terms, which has been foregone on account of not using the facilities in the manner originally planned.

Example: If an owned building is proposed to be utilized for housing a new project plant, the likely revenue which the building could fetch if rented out is the opportunity cost which should be taken into account while evaluating the profitability of the project.

TRACEABLE OR UNTRACEABLE COSTS

Costs which can be easily identified with a department, process or product are termed as traceable costs. Example: the cost of direct material, direct labour etc. Costs which cannot be so identified are termed as untraceable or common costs.

In other words common costs are costs incurred collectively for a number of cost centres and are to be suitably apportioned for determining the cost of individual cost centres. Example: overheads incurred for a factory as a whole etc.

JOINT COSTS

These are a sort of common costs. When two or more products are produced out of one and the same material or process, the costs of such material or process are called joint costs.

Example: When cotton seeds and cotton fibre are produced from the same raw materials, the cost incurred till split off or separation point will be joint costs.

COMMON COSTS

Common costs are those which are incurred for more than one product, job, territory or any other specific costing unit. They are not capable of being identified with individual product, and are therefore apportioned on a suitable basis.

Example: Rent, lighting and supervision costs are common costs to all departments located in the factory.