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POST GRADUATE DEPARTMENT OF COMMERCE – COMPUTER APPLICATIONS
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COST ACCOUNTING
BY

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COST

Cost is the amount of **actual expenditure** incurred on a given thing and **notional expenditure** attributable to a given thing, whether paid or payable.

COSTING

Costing is the **technique and process** of **ascertaining costs**.

The ICMA defined costing as the ascertainment of costs. "It refers to the techniques and processes of ascertaining costs and studies the principles and rules concerning the determination of cost of products and services."

COST ACCOUNTING

The **process of recording and accounting** for all elements of cost is called cost accounting.

Cost Accounting is defined as "the **process of accounting for cost** which **begins** with the recording of **income and expenditure** or the bases on which they are calculated and **ends** with the preparation of periodical statements and reports for ascertaining and controlling costs."

COST ACCOUNTANCY

Cost Accountancy has been defined as "the **application of costing and cost accounting principles, methods and techniques** to the science, art and practice of cost control and the ascertainment of profitability."

OBJECTIVES OF COST ACCOUNTING

- Cost finding or cost ascertainment
- Control of cost

- ❖ Reduction of cost
- ❖ Fixation of selling price
- ❖ Providing information for framing business policy

COST CENTRE - "A location, person or items of equipment or group of these for which costs may be ascertained and used for the purpose of cost control." – ICMA

PROFIT CENTRE - Profit centre is responsible for revenues and costs. A profit centre is a centre where the manager has the responsibility of generation and **maximising profits**.

INVESTMENT CENTRE - Investmentcentres concerned with earning an adequate **return on investment**.

RESPONSIBILITY CENTRE - Responsibilitycentre can be categorised into **three types** i.e., Cost centres, Profit centres and Investment centres.

COST UNIT

Cost unit is defined as unit of quantity of product, service or time in relation to which costs may be ascertained. Cost units are of two types. 1. Single unit 2. Composite unit

METHODS OF COSTING

A. SPECIFIC ORDER COSTING

This method of costing is applicable where the work consists of **specific orders**.

- **Job costing** – Costs are collected and accumulated for **each job**, work order or project separately. It is applicable to **printers, machine tool manufacturers and general engineering workshop**.
- **Batch costing** – This is an extension of job costing. A batch may represent a number of **small orders** passed through the factory in **batch**. The cost per unit is determined by dividing the cost of batch by number of units' product in a batch. This method is applied in **Biscuits manufacture, garments manufacture and spare parts** etc.
- **Contract costing** – When the job is **big and spread over long periods** of time, this method is used. A separate account is kept for each individual contract. This method is used by **builders, civil engineering contractors** etc.,

B. OPERATION COSTING

This method of costing is applicable where standardised goods or services result from a sequence of **continuous operations**.

- **Process costing** – Where production is carried on through **different stages or processes** before becoming a finished product. It is followed in **Sugar industries, textile industries, chemical industries** etc.,
- **Single or Unit or Output costing** – This method is applied in industries like **mines, quarries, oil, cement works, brick works** etc.,
- **Service costing (Operating costing)** – This is suitable for industries which render **services rather than manufacturing goods**. This is used to ascertain the cost of services rendered. This is applied in **transport, power supply companies, hospitals, hotels, cinema** etc.,
- **Farm costing** – It helps in calculation of total cost and per unit cost of various activities covered under farming. Farming activities cover agriculture, horticulture, poultry farming, dairy, sericulture etc.,

- **Multiple costing** – It represents in the application of **more than one method of costing** in respect of the same product. This is suitable for industries where a number of component parts are separately produced and subsequently assembled into a final product. It is used in **manufacturing cycles, automobiles, radios, typewriters** etc.,

TYPES OR TECHNIQUES OF COSTING

- **Uniform Costing** – It is the use of **same costing principles** and practices by several undertakings for common control or comparison of costs.

- **Marginal Costing –** Under marginal costing costs are classified into fixed and variable. Variable costs are treated as product costs and fixed cost are treated as period costs. Marginal costing is helpful in managerial decision making. It is used to ascertain the effect of changes in volume or type of output on profit.

- **Standard Costing –** It is pre-determined cost. The costs are determined in advance of production. A comparison is made of the actual cost with a pre-arranged standard and the cost of any deviation is analysed by causes. This system enables control of costs and also measuring the efficiency of operation.

- **Historical Costing –** It is also known as traditional costing. It refers to the ascertainment of costs after they have been incurred. It aims at ascertaining costs actually incurred on work done in the past.

DIFFERENT COST CONCEPTS

1. **Cost classification according to Elements**
   - **A.** Material
   - **B.** Labour
   - **C.** Expenses

All **direct cost** is termed as **Prime Cost**. All **indirect cost** is termed as **Overheads**.

2. **Cost classification according to Functions**
   - **A. Production Cost** – It is also known as **manufacturing or factory** cost incurred in converting raw material into finished product.
   - **B. Administration cost –** It is incurred for **overall** planning, organising and control of the enterprise.
   - **C. Selling cost** – All the expenses of selling department including **product promotion and advertising**.
   - **D. Distribution cost** – It comprises of **packing, warehouse expenses, cost of freight** etc.,
3. **Cost classification according to Nature of Costs –**
   - **A. Fixed cost –** Fixed costs are those which do not change with increase or decrease in quantum of production but remains static.

Fixed cost per unit is to be **changed** according to volume of **output**.

   - **B. Variable cost –** Variable costs increase or decrease in direct proportion to increase or decrease in production. Variable costs are sometimes referred to as direct costs in systems of direct costing.

Variable cost per unit is to be **fixed.**

   - **C. Semi-fixed or Semi-variable Cost –** A cost which is partly variable.
4. **Cost classification according to Controllability**
   - **A. Controllable Cost –** This is the cost **which can be** influenced by the action of a specified member of an undertaking. Ex. Direct material, Direct labour etc.,
   - **B. Uncontrollable Cost –** This is the cost **which cannot be** influenced by the action of a specified member of an undertaking. Ex. Rent, rates, insurance etc.,
5. **Cost classification according to Normality**

   This is the cost incurred in the conditions in which the output is normally attained. **Normal cost is included in cost of production**. Abnormal costs are not usually incurred

at a given level of output in the conditions in which that level of output is normally produced. **Abnormal cost is excluded from cost of production.**

6. **Cost classification according to relevance to decision making and control**
   - **A. Shut-down cost –** A cost which is incurred irrespective of plant is in operation. Ex. Rent, rates, depreciation, maintenance expenses etc.,
   - **B. Sunk cost** – A cost which is incurred in the **past** and is **not** relevant to the **decision making** ex. Written down value of plant is irrelevant for replacement of machinery.
   - **C. Opportunity cost –** The costs which are related to the sacrifice made or the benefits foregone are opportunity costs.
   - **D. Imputed Cost –** It is the **notional cost** to be considered for making costs comparable. Ex. **Rent of own building, interest on own capital.**
   - **E. Out-of-pocket cost –** This is the cost which is payable in cash as against costs such as depreciation which does not involve cash payment.
   - **F. Replacement cost –** It is the cost of replacing a material or asset by purchase from the market at current prices.
   - **G. Conversion cost –** This is the **cost of production excluding cost of direct materials**. It is the cost of converting raw materials into finished product.

PROCESS COSTING

- Process costing is that **form of operation costing** where standardised goods are produced.
- Process costing is a **method of costing** which is used to ascertain the cost of output at **each stage** of production.
- Process costing is applicable to **Chemical industry, Sugar industry, textile industry, Oil refining industry, paper industry, food products, mines etc.,**

WASTAGE - Wastage is material that is **lost or evaporates** in a manufacturing process or is a residue that has **no measurable recovery value**. Wastage has **neither recovery value nor has any use**.

SCRAP - It is recoverable low amount **without further processing**.

SPOILAGE - Spoilage occurs when goods are damaged **beyond rectification.**

DEFECTIVES - It is a part of production which can be **rectified** and made into **good units** with **additional cost**.

NORMAL LOSS

It is the process loss which is **unavoidable and uncontrollable**. Management **estimates** such loss **in advance** on the basis of past **experience**. The normal loss should be absorbed by **good units produced**.

A separate normal loss account is opened in the cost ledger. It is debited with the normal loss of different processes. Cash realised from the normal scrap and the scrap value of abnormal gain units are credited to the account.

ABNORMAL LOSS

When process loss is in **excess of predetermined loss**, such additional loss is called abnormal loss or abnormal wastage. Example, Substandard material, faulty tools and equipment. The abnormal loss is **avoidable and controllable**.

Abnormal loss finally transferred to **costing Profit & Loss Account.**

UNIT OR SINGLE OR OUTPUT COSTING

Unit costing is the method of costing employed:

- Where production is carried on in a single process or operation.
- When production is uniform and continuous. When the cost units are physical and natural.
- The output units are **identical** or a few grades of similar articles.

OPERATING COSTING OR SERVICE COSTING

Operating costing is a method of costing designed to ascertain and control the costs of services. Those industries or organisation which do not produce any product but render services to customers can use this method.

Applicable to **Transport, Hospital, Hotel, Water supply, Gas, Electricity, cinema, canteen etc.**

OPERATING COST UNITS

Passenger transport	= Passenger k.m./mile
Goods transport	= Ton-mile/k.m.
Hospitals	= Patient-bed-day

- Lodging houses = Room-day
- Cinema theatres = Man-show
- Power generation = Kilowatt-hour
- Road-lighting = Per lamp post

JOB COSTING

Job costing is a **specific order costing** in which cost are attributed to individual job.

- Jobs are undertaken against the orders of **customers**, as per their **instructions**.
- The production is **not continuous**.
- It is used for comparatively smaller works of **shorter duration.**
- Separate cost sheet is prepared for **each job** to ascertain its cost and profit.
- Applicable to **printing presses, machine tools manufacturers, furniture makers, repair shops, foundries, automobile services industry etc.**

CONTRACT COSTING

Contract costing is a **specific order costing** in which cost are attributed to individual Contract. The method is widely used in **construction works.**

Work Certified – The experts usually certify the amount of work completed.

Work Uncertified – This is work done but not yet certified by the contractee's representative.

Retention Money – The contractee pays 70% to 80% of the work certified and the balance of the work certified is kept as a provision. Such provision is called "Retention Money".

Escalation Clause – The contractor may feel that protection is needed against rise in material prices and wages rates.

Cost plus contract – Estimating the costs + Specific rate of profit

Completed Contracts

When a contract is completed, the **overall profit or loss** on the contract is **transferred** to the **profit & loss** account fully.

Incomplete Contracts

When there is **loss** on an **incomplete contract**, it is **fullytransferred** to the **profit and loss** account.

- **When work-certified is less than 25% of contract price:** No profit should be transferred to P&L a/c. the entire notional profit is kept in reserve for contingencies.

- **When work certified is 25% or more but less than 50% of the contract:** $1/3^{rd}$ of the notional profit subject to the ratio of cash received to work certified is transferred to P&L a/c.

  Profit credited to P&L A/c = Notional Profit X 1/3 X $\frac{\text{cash received}}{\text{Work certified}}$

- **When work certified is 50% or more of the contract price:** $2/3^{rd}$ of the notional profit is transferred to P&L a/c.

  Profit credited to P&L A/c = Notional Profit X 2/3 X $\frac{\text{cash received}}{\text{Work certified}}$

COST-VOLUME-PROFIT ANALYSIS (CVP)

- **CVP** analysis is also known as **Break-Even analysis.**

- It examines the relationship of costs and profit to the volume of business to maximize profits.

- CVP analysis is the analysis of **three variables** viz., cost, volume and profit. This measures variations of costs and volumes and their impact on profit.

- CVP analysis helps the management in **profit planning**.

- CVP is concerned with finding out the **'Crisis Point'** (Break-Even Point).

OBJECTIVES OF CVP ANALYSIS

- The cost for various levels of production
- The desirable volume of production
- The profit at various levels of production
- The difference between sales revenue and variable cost.

PROFIT PLANNING

Marginal cost helps the **profit planning** i.e. planning for future operations in such a way as to maximize the profits or to maintain a specified level of profits.

Key Factor or Limiting Factor

Key factor is that factor which puts a limit on production and profit of a business. Usually the limiting factor is sales.

Make or Buy Decision
A concern can utilize its idle capacity by making component parts instead of buyin

DIFFERENTIAL COSTING OR INCREMENTAL ANALYSIS

Marginal costing technique is useful to management in decision making. Marginal costing and differential costing are akin (similar) to each other but conceptually they are **different**.

- Under **marginal costing, fixed costs arenot added** to get the marginal cost of a product. Whereas **differential cost fixed costs are taken** into consideration.
- **Differential costing** helpful to taking the **managerial decisions** and is **not incorporated in accounting** records.
- **Differential cost** is referred to as **incremental cost** in case of **increase in output** and **Decremental cost** in case of **decrease in output**.
- Differential cost (Incremental/Decremental) is ascertained by comparing total cost of each alternative with the cost before taking up the alternative.
- Incremental revenue is also calculated as the difference between the total income before and after implementing the decision.
- Difference between incremental revenue and differential cost shows net gain or net loss, termed as new increment.

DIFFERENTIAL COST

ICMA defines differential cost as "the **increases or decreases** in total costs or the changes in a specific element of costs that result from any variations in operations" with reference to level of output, differential cost is the **difference in total costs for two levels of output**.

DIFFERENTIAL COSTING

According to ICMA London, "**differential costing is a technique** based on preparation of adhoc information in which only cost and income **differences**

between**two alternatives/courses of action** are taken into consideration."

RECONCILIATION OF COSTING AND TRADING PROFITS

- Financial account transactions are recorded according to **nature of expenses**.
- Cost account transactions are recorded according to purpose for which **cost incurred**.

- Reconciliation is normally done between **costing profit and financial profit.**
- In case of **non-integral system** the two profits disclosed by the two sets of books differ and as such the accounts are **to be reconciled** and this is essential.

REASONS FOR VARIATIONS

- Different bases of stock valuation
- Different methods of charging depreciation
- Under or over absorption of overheads
- Items shown one set of accounts

RULES FOR SOLVING PROBLEM

	Recorded	**Not Recorded**
Opening stock and expenses	**ADD**	**LESS**
Closing stock and incomes	**LESS**	**ADD**

ALLOCATION AND APPORTIONMENT OF OVERHEADS

- Expenditure **over and above prime cost** is known as **overhead.**
- The **indirect cost** constitutes the **overhead**.
- Overhead is also known as **on cost.**
- **Overheads** are all expenses **other than direct expenses**.
- Indirect costs which are incurred for the benefit of number of cost centres and cost units and cannot be specifically identified with any one of them.

MEANING OF OVERHEADS

- ✓ Cost relating to a cost centre or cost units consists of direct cost and indirect cost.
- ✓ Direct costs can easily be identified with cost units. Direct cost is the aggregate of direct material, direct labour and direct expenses.
- ✓ The indirect cost constitutes the 'overhead' which is the total of indirect material, indirect labour and indirect expenses. Indirect cost cannot be traced specifically to any units of production.

DEFINITION OF OVERHEADS

Blocker and Weltmer define overhead as follows:

"Overhead costs are operating costs of a business enterprise which cannot be traced directly to a particular unit of output. Further such costs are **invisible or unaccountable**."

CLASSIFICATION OF OVERHEAD

A. FUNCTION-WISE CLASSIFICATION

1. Manufacturing overhead
2. Administration overhead
3. Selling overhead
4. Distribution overhead
5. Research and development cost

B. BEHAVIOUR-WISE CLASSIFICATION OR CLASSIFICATION ON VARAIBILITY BASIS

1. Fixed overhead costs
2. Variable overhead costs
3. Semi-variable overhead cost

C. ELEMENT-WISE CLASSIFICATION

1. Indirect materials
2. Indirect labour
3. Indirect expenses

D. CONTROLWISE CLASSIFICATION

1. Controllable costs
2. Uncontrollable costs

E. CLASSIFICATION OF OVERHEADS BASED ON NORMALITY

1. Normal overheads
2. Abnormal overheads

ALLOCATION OF OVERHEAD COSTS

ICMA, London has defined cost allocation as "the allotment of whole items of cost to cost centres or cost units."

APPORTIONMENT OF OVERHEAD COSTS

The allotment of two or more cost centres of proportions of common items of cost on estimated basis of benefit received.

BASES OF APPORTIONMENT

- Factory rent = Area in square meters or square feet
- Power = Kilowatt hours (K.W.H)
- Indirect material = Direct material
- Indirect wages = Direct wages
- Repairs to plant = Plant value
- Depreciation = Plant value
- Lighting = Light points/Floor area
- Supervision = No. of employees
- Fire insurance of stock = Stock value
- Fire insurance of capital Assets = Values of capital assets
- ESI/PF contribution of Employer = Wages of each department
- Labour welfare expenses = Number of employees
- General factory overheads = Labour hours/Direct wages

DISTRIBUTION OF OVERHEADS

A. Primary Distribution of overheads

B. Secondary Distribution of Overheads

1. Inter service not considered
2. Inter service being considered
   i. Non-reciprocal
      a. Step method
   ii. Reciprocal
      a. Repeated distribution method
      b. Simultaneous equation method
      c. Trial and error method

ABSORPTION OF OVERHEADS

The process of charging the overhead cost of a cost centre to the cost units is called overhead absorption. The base selected is used to calculate a uniform 'Rate' to absorb the overheads which is called 'Absorption Rate'.

TYPES OF OVERHEAD RATES

1. Actual overhead rates
2. Predetermined overhead rates
3. Blanket overheads rates (Single rate for the entire factory)
4. Multiple overhead rates

METHODS OF ABSORPTION OF OVERHEAD

1. Direct material cost method
2. Direct labour (Wages) method
3. Prime cost percentage method
4. Direct labour hour method
5. Machine hour rate method
6. Rate per unit of production method
7. Sale price method

OVER ABSORPTION OR OVER-RECOVERY OF OVERHEAD

When expenses absorbed are MORE than actual expenses incurred it is known as over absorption.

Over absorption= Actual expenses < Expenses absorbed

UNDER ABSORPTION OR UNDER-RECOVERY OF OVERHEAD

When expenses absorbed are LESS than actual expenses incurred it is known as under absorption.

Under absorption = Actual expenses > Expenses absorbed