

Costing Methods

Chapter 2.5

Costing Methods

- Job costing
- Batch costing
- Contract costing
- Service costing

Costing Methods

- A costing method is designed to suit the way goods are processed **or** manufactured or the way services are provided. In broader “How to do the costing in different industries”.
- Each organization's costing method will have unique features but costing methods of firms in the same line of business will more than likely have common aspects.



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Introduction to Costing Methods

Costing methods are systems used to **collect, classify, and assign costs** based on the nature of production and type of output.

Purpose of costing methods:

- Pricing decisions
- Profitability analysis
- Cost control
- Performance evaluation
- Strategic decision making

Costing method must match the **production environment of the organisation.**

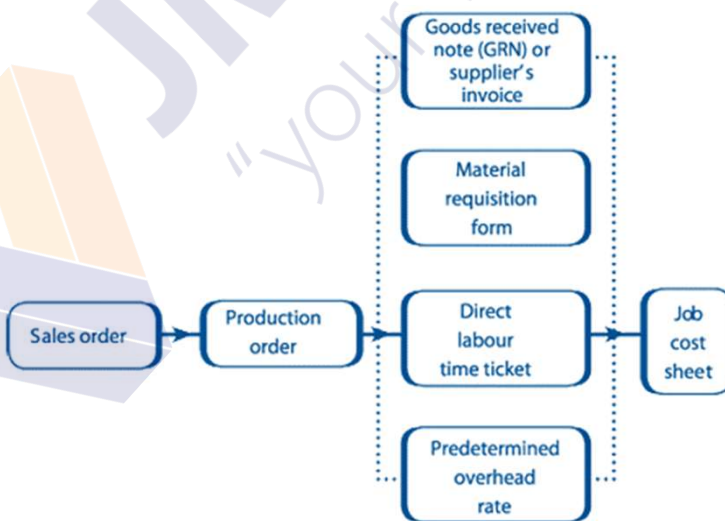
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Job Costing

- Job costing is a costing method applied where work is undertaken to **customers' special requirements** and each order is of comparatively **short duration**. Accordingly each job is unique.
- A job is a cost unit which consists of a single order or contract.
- The work relating to a job moves through processes and operations as a **continuously identifiable unit**.
- Job costing is most commonly applied within a factory or workshop, but may also be applied to property repairs and internal capital expenditure.

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Job Costing Process



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Job Cost Information

- **Direct material –**

Estimated qty use * Estimated purchasing price

- Actual cost will be used where the actual cost is available with the stocks.

- **Direct labour -**

Estimated Hrs * Estimated hourly rate

- Actual labour hours can be taken from the time sheet upon the completion of the job.

- **Direct expenses –**

Estimated cost of any expenses likely to be incurred can be obtained from a supplier.

- **Production OH –**

Production cost to be absorbed based on OAR.

- **Administration OH –**

Non- production OH to be absorbed based on a fair method. Generally it is a % from production cost.

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Job Cost Information

Rectification of work cost

If the finished output is found to be sub-standard, it may be possible to rectify the fault.

- Specific – Charge as a direct cost of the job.
- Frequent occurrence – Treat as a Production overhead.

Pricing the job

- Generally cost-plus pricing will be used. Desired profit margin is added to total costs to arrive at the selling price.

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Job Costing Computerization

- Every job will be given a **job code** number
- A separate set of **codes** will be given for the **type of costs**
- In a sophisticated system, costs can be analyzed both by job (*for example* all costs related to Job 456), but also by type.
- A job costing system might have facilities built into it which incorporate other factors relating to the performance of the job.

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Example – Order / Job Costing

XYZ Furniture Company received an order to produce **one custom office table** for a customer.

Cost details for Job No. 205:

Cost Item	Amount (Rs.)
Direct material (wood, polish)	12,000
Direct labour (carpenter wages)	8,000

Overhead = 25% of material cost

Calculate the cost of the job.

Step 1 – Calculate Overhead

Overhead = 25% × Direct material

Overhead = 25% × 12,000

Overhead = 3,000

Step 2 – Calculate Total Job Cost

Total cost = DM + DL + OH

Total cost = 12,000 + 8,000 + 3,000

Total cost = 75,000

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Batch Costing

- Batch costing is similar to job costing in that each batch of similar articles is separately identifiable.
- A batch is a group of similar articles which maintains its identity during one or more stages of production and is treated as a cost unit.
- The batch is treated as a job during production and the costs are collected in the manner already described in this chapter.
- Once the batch has been completed, the cost per unit can be calculated as the total batch cost divided into the number of units in the batch.
- The cost per unit manufactured in a batch is the total batch cost divided by the number of units in the batch.

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Batch Costing

The cost per unit manufactured in a batch is the total batch cost divided by the number of units in the batch.

**Cost per unit
in batch =**

Total production cost of batch

Number of units in batch

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Example – Batch Costing

Batch No. 18 (Garment Production)

ABC Garments produced a batch of 500 shirts.

Cost details:

Cost Item	Data
Direct material	Rs. 30,000
Direct labour	Rs. 15,000
Labour hours worked	100 hours
Overhead rate	Rs. 80 per labour hour
Calculate the cost of the batch and cost per shirt.	

Step 1 – Calculate Overhead

Overhead = Labour hours × OH rate

Overhead = 100 × 80

Overhead = 8,000

Step 2 – Total Batch Cost

Total cost = DM + DL + OH

Total cost = 30,000 + 15,000 + 8,000

Total cost = 53,000

Step 3 – Cost per unit

Units in batch = 500 shirts

Cost per unit = 53,000 ÷ 500

Cost per unit = Rs. 106

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Differences to Job costing and Batch costing

Job Costing

Making 1 specific loaf.

Printing a specific poster for a business.

Installing an alarm in a house.

Batch Costing

Making a batch of loaves to a standard recipe.

Printing a batch of posters to be put up around town.

Installing alarms in block of flats.

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Contract Costing

- Contract costing is a form of job costing which applies where the job is on a **large scale** and for a **long duration**. The majority of costs relating to a contract are direct costs.
- A contract is a cost unit or cost centre which is charged with the direct costs of production and an apportionment of head office overheads.



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Features of contract costing

- (a) A **formal contract is made between customer and supplier.**
- (b) Work is undertaken to **customers' special requirements.**
- (c) The work is for a **relatively long duration.** Large jobs may take a long time to complete, perhaps two or three years or less than 1 year.
- (d) The work is frequently **constructional in nature.**
- (e) The method of costing is **similar to job costing.**
- (f) The work is frequently **based on site.**
- (g) It is not unusual for a site to have its **own cashier and time-keeper.**

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Challenges in contract costing

Problem	Comments
Identifying direct costs	Because of the large size of the job, many cost items which are usually thought of as production overhead are charged as direct costs of the contract. Ex Site supervisor salary
Low indirect costs	Absorption rate is rarely used. For most contracts the only item of indirect cost would be a charge for head office expenses.
Difficulties of cost control	Because of the size of some contracts and some sites, there are often cost control problems (material usage and losses, pilferage, labour supervision and utilisation, damage to (and loss of) plant and tools.
Dividing the profit between different accounting periods	When a contract covers two or more accounting periods, how should the profit (or loss) on the contract be divided between the periods? LKAS 11 will deal with this problem.

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Contract Account

- The account for a contract is a job account, or work in progress account, and is a record of the direct materials, direct labour, direct expenses and overhead charges on the contract.
- On an unfinished contract, where no profits are taken mid-way through the contract, this cost of work in progress is carried forward as a closing inventory balance.

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Why Percentage of Completion Method is Used?

If we wait until completion:

- Profit will be zero for many years
- Then large profit at the end
- Financial statements become misleading

Therefore profit is recognised gradually based on work done.

Purpose:

- Match revenue with cost
- Show true performance
- Provide reliable financial statements

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Basic Idea of Percentage of Completion

Profit is recognised according to progress of contract.

Progress is measured using cost.

$$\% \text{ complete} = \text{Cost incurred} \div \text{Total estimated cost} \times 100$$

$$\text{Revenue recognised} = \text{Contract price} \times \% \text{ complete}$$

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Example – Contract Costing

Contract Details

Contract price = Rs. 10,000,000

Total estimated cost = Rs. 8,000,000

Cost incurred to date = Rs. 4,000,000

Cost Item	Cost to date (Rs.)
Direct materials	1,600,000
Direct labour	1,200,000
Plant & equipment	800,000
Overheads	400,000
Total cost incurred	4,000,000

Calculate the profit to be recognised in to income statement

Step 1 – Percentage of Completion

% Complete

= Cost incurred / Total estimated cost × 100

= 4,000,000 / 8,000,000 × 100

= 50%

Step 2 – Revenue Recognised

Revenue

= Contract price × % complete

= 10,000,000 × 50%

= 5,000,000

Step 3 – Profit Recognised

Profit

= Revenue – Cost incurred

= 5,000,000 – 4,000,000

= 1,000,000

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Service Costing

Service costing can be used by companies operating in a service industry or by companies wishing to establish the cost of services carried out by some of their departments. Service organizations do not make or sell tangible goods.

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Features of service costing

- **Intangibility** - output is in the form of 'performance' rather than tangible ('touchable') goods.
- **Heterogeneity** - the nature and standard of the service will be variable due to the high human input.
- **Simultaneous production and consumption** - the service that you require cannot be inspected in advance of receiving it.
- **Perishability** - the services that you require cannot be stored.

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Service Costing – Unit of Measure

The main problem with service costing is the difficulty in defining a realistic cost unit that represents a suitable measure of the service provided. Frequently, a composite cost unit may be deemed more appropriate.

Service	Cost unit
Road, rail and air transport services	Passenger/mile or kilometre, tonne/mile, tonne/kilometre
Hotels	Occupied bed-night
Education	Full-time student
Hospitals	Patient
Catering establishment	Meal served

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Service Cost Analysis

- The cost per service unit is calculated by establishing the total costs involved in providing the service and dividing this by the number of service units used in providing the service.
- The calculation of a cost per service unit is as follows.

$$\text{Cost per service unit} = \frac{\text{Total costs for providing the service}}{\text{Number of service units used to provide the service}}$$

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Example – Service Costing

Bus Service Costing

ABC Transport operates one bus for one month.

Cost Item	Amount (Rs.)
Driver salary	60,000
Conductor salary	40,000
Fuel	80,000
Maintenance	20,000
Insurance & licence	10,000
Overheads	30,000
Total cost	240,000
Service Output	
Total distance travelled = 12,000 km	
Total passengers carried = 3,000 passengers	
Calculate the cost per running Km and Cost per Passenger Km	

Step 1 – Cost per km

Cost per km
 = Total cost ÷ Total km
 = 240,000 ÷ 12,000
 = Rs. 20 per km

Step 2 – Passenger-km

Passenger-km
 = Passengers × km
 = 3,000 × 12,000
 = 36,000,000 passenger-km

Step 3 – Cost per passenger-km

Cost per passenger-km
 = Total cost ÷ Passenger-km
 = 240,000 ÷ 36,000,000
 = Rs. 0.0067 per passenger-km

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