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Activity Based Costing

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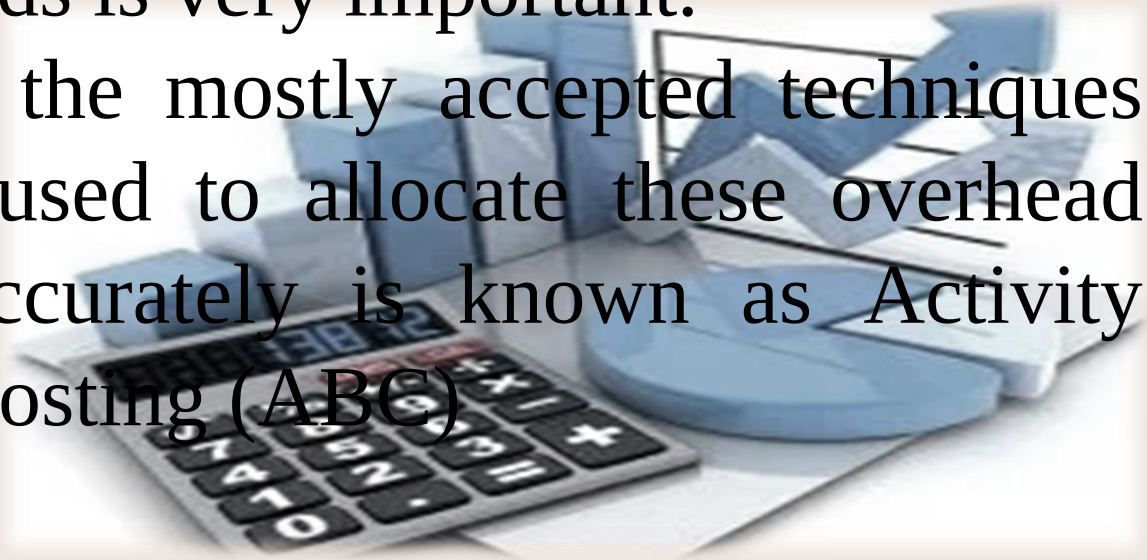
Learning objectives

- Explain the importance of ABC system as an overhead allocation system
- Allocation of overheads based on ABC and calculation of the cost per cost object
- Identification of the benefits of ABC with compared to traditional costing systems

Introduction

- Cost structure of a product or a service is one of the most important factors that an organization takes into account.
- In determining the cost, allocation of overheads is very important.
- One of the mostly accepted techniques that is used to allocate these overhead costs accurately is known as Activity based Costing (ABC)



Cost

Cost

The amount of actual or nominal expenditure incurred

EX : cost of a unit production

Cost objects / Cost unit

Any activity or a thing for which a separate measurement of cost is required.

EX : cost of a bottle of milk

Overhead

- Overhead cost is **‘expenditure on labour, materials or services that cannot be economically identified with a specific saleable cost unit’**
- Overhead includes a large number of types of indirect costs
- Overheads are becoming an increasingly important element of cost in today’s environment and the proportion of overhead cost in total cost in modern industry is considerably high.

Examples

1. Repair and Maintenance cost
2. Electricity
3. Insurance
4. Factory Manager salary
5. Security charges
6. Supervision charges
7. Engineering charges

Cont.…

- Direct cost can be accurately traced to the cost object. (Cost Tracking)
- But indirect cost can not be directly identified with the cost object and they should be assigned to cost objects using cost allocation.
- The basis that is used to allocate the cost to cost objects is known as allocation base or cost driver

The two stage allocation of O/H s

1. Overheads are allocated assigned to the cost centers
2. Cost accumulated in the cost centers are allocated to cost objects using selected allocation bases

Absorption costing system

In the absorption costing, overheads are absorbed to the products using predetermined OAR. The OAR s are calculated using budgeted information.

Example

An electronic product manufacturer produces three types of electronic products. The costing information of the company is as follows.

Cont.…

	X	Y	Z
Quantity Produced	20,000	40,000	60,000
Direct Material per unit (Rs.)	100	80	60
Direct Labour per unit (Rs.)	60	80	100
Labour hours per unit- Dpt 1	6	8	10
Machine hours per unit- Dpt 2	6	8	14

Cont.…

Production overheads analyzed by the department.

	Department 01	Department 02
Electricity	200,000	250,000
Insurance	500,000	550,000
Supervision cost	600,000	500,000
Repair and maintenance	400,000	300,000
Engineering charges	300,000	500,000
Depreciation	200,000	900,000

Cont..

- Department 1 is labour intensive and department 2 is machine intensive. Total labour hours in department 1 - 400,000
- Total machine hours in department 2 - 800,000
- Calculate the cost per unit as per the traditional costing method and profit per unit, if the market prices of X, Y and Z are Rs. 235, 255 and 275.

Designing ABC system

1. Identify the major activities that take place in an organization
2. Assigning cost to cost pools / cost centers for each activity.
3. Determining the cost drivers for each major activity
4. Calculate the cost per driver and the driver rates should be allocated to products.

Cont.…

- Cost per driver (Driver rate) =

  Total cost of activity / Activity Driver

Example 01

- Set up cost = Rs. 120,000 (Cost Pool)
- Number of setups = 4000 (Cost Driver)
- Cost per driver = 120,000 / 4000
- = Rs.30
- For product X, 100 setups are being allocated.
- Therefore the overhead cost per unit of X is 30*100 = Rs.300

Example 02

Calculate the cost per driver based on following information

Overhead cost	value (Rs.)
Engineering	150,000
Setups	120,000
Labour	100,000
Inspection	150,000
Factory utilties	24,000

Cont.…

Activity Driver	
Engineering hours	5,000
Set up hours	4,000
Labour hours	10,000
Inspection hours	12,000
Machine hours	20,000

Investment in knowledge pays the best interest

Thank you !!!