Basic Aspects of Cost Accounting

The fundamental concepts of the framework of cost accounting

Topics

- Cost units, cost centres and cost objects
- The classification of costs
- The elements of cost
- Cost behaviour patterns
- Analysing semi-variable costs

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Key learning system questions

1 Cost behaviour
3 High-low method

Cost units, cost centres and cost objects

Definitions

Cost unit – a unit of product or service in relation to which costs are ascertained

Cost centre – a production or service location, a function, an activity or an item of equipment for which costs are accumulated

Cost object – anything for which costs can be ascertained

Cost centre examples

Location: production department A

Function: administration

Activity: invoice processing

Item of equipment: stamping machine

Cost unit examples

Product: litre of paint, batch of cakes

Service: restaurant meal, tonne-mile

Cost object examples

Product, service, centre, activity, customer, distribution channel

Cost units, cost centres and cost objects

The link between cost centres, cost units and cost objects

A cost centre acts as a collecting place for costs. The total cost centre cost may then be related to the cost units which have passed through the cost centre to determine a cost per unit. Cost centres and cost units are types of cost object

The classification of costs

Types of cost classifications

- ⇨ **Nature of cost:** material, labour or expense
- ⇨ **Purpose of cost:** direct costs and indirect costs
- ⇨ **Responsibility for cost:** grouping according to responsibility centres

Costs are classified so that they can be arranged into logical groups for further analysis

Indirect costs are also referred to as **overheads**

Tracing costs to responsibility centres involves grouping costs according to which manager or management team is **responsible for the control of the cost**

Definitions

Direct cost – a cost that can be specifically attributed to a particular cost unit

Indirect cost – a cost that cannot be economically attributed to a particular cost unit

The elements of cost

Study tip

A sound understanding of the difference between total direct cost, total production cost and total cost will help you in assessment questions on a variety of different topics

  Direct materials
+ Direct labour
+ Direct expenses
= **Total direct cost**
+ Indirect materials
+ Indirect labour
+ Indirect expenses
= **Total production cost**
+ Other overhead
= **Total cost**

Remember this!

Direct costs are those that can be specifically identified with the cost object we are trying to cost

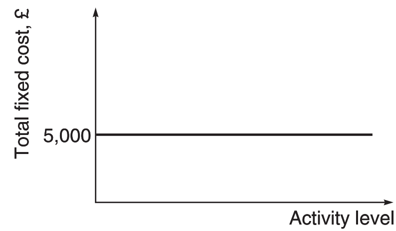
Total direct cost is also referred to as **prime cost**

Indirect materials, indirect labour and indirect expenses associated with production are also referred to as **production overhead**

Other overhead includes selling, distribution and administration overhead

Cost behaviour patterns

Cost behaviour patterns describe the way that costs behave in relation to changes in the level of activity

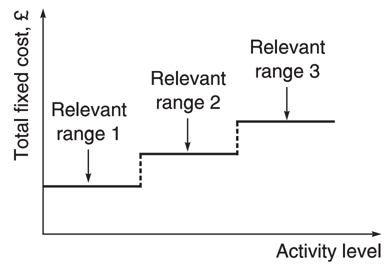


Definition

Fixed cost – a cost which, within certain activity limits, is not affected by fluctuations in the level of activity

Examples of fixed costs

- Rent of the factory
- Accountant's salary



Definition

Stepped fixed cost – a cost which remains constant for a range of activities, but which increases to the next step when a critical level of activity is reached

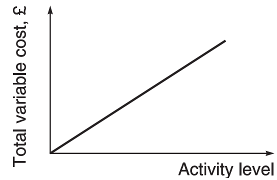
Examples of stepped fixed costs or step costs

- Supervisors' salaries
- Machine rentals

Cost behaviour patterns

Definition

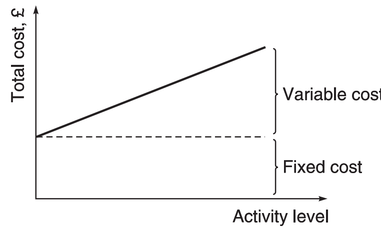
Variable cost – a cost which varies in relation to the level of activity



Examples of variable costs
- ⇨ Packaging material costs
- ⇨ Royalties

Definition

Semi-variable cost – a cost containing both fixed and variable components and which is thus partly affected by a change in the level of activity



Examples of semi-variable costs
- ⇨ Telephone expenses
- ⇨ Gas and electricity bills

Semi-variable costs are also referred to as semi-fixed or mixed costs

Analysing semi-variable costs

The high-low method

- Uses historical data on costs and activity levels
- Selects the highest and lowest activity levels and assumes that the change in cost between the levels is caused by the change in variable cost
- Variable cost per unit of activity is determined by dividing change in total cost by change in activity level
- Fixed cost determined by substituting variable cost per unit into either of the activity levels

Study tip

This is a very important technique. It is vital that you are able to apply it to a wide variety of data. The activity measure will vary but the technique remains the same

Example

Activity level	*Cost*
450 units	£ 4,675
220 units	£ 4,330
800 units	£ 5,200

Analyse the cost into its fixed and variable components

Solution

$$\text{Variable cost per unit} = \frac{£\,(5{,}200 - 4{,}330)}{(800 - 220)}$$
$$= £\,1.50$$
$$\text{Fixed cost} = £\,5{,}200 - £\,(1.50 \times 800)$$
$$= £\,4{,}000$$

Analysing semi-variable costs

Scattergraph

- Uses historical data on costs and activity levels
- All available pairs of data plotted on graph
- **Line of best fit** is drawn by eye

Example

Fixed cost = vertical axis intercept = £ 200

$$\text{Variable cost per unit} = \text{gradient of line of best fit} = \frac{£\,(500 - 200)}{(150 - 0)} = £\,2 \text{ per unit}$$

Variable cost per unit is given by gradient of line

Fixed cost is given by intercept on vertical axis, i.e., cost at zero activity