



CLASSIFICATION OF COST, CVP ANALYSIS & BEP

ECONOMICS FOR ENGINEERS (HS-HU601)

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ELECTRONICS & COMMUNICATION ENGINEERING



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Classification of Cost

- Cost refers to the value sacrificed with the aim of gaining something in return.
- **Classification of Costs** essentially means the grouping of costs according to their similar characteristics.
- Every business process involves some cost. It is the basis of profit determination for an organisation.
- A particular cost can be allocated under multiple categories.
- For instance; the salary paid to an employee is a labour cost as well as a fixed cost.
- Moreover, the different elements of cost classification are linked to each other in one or the other way.



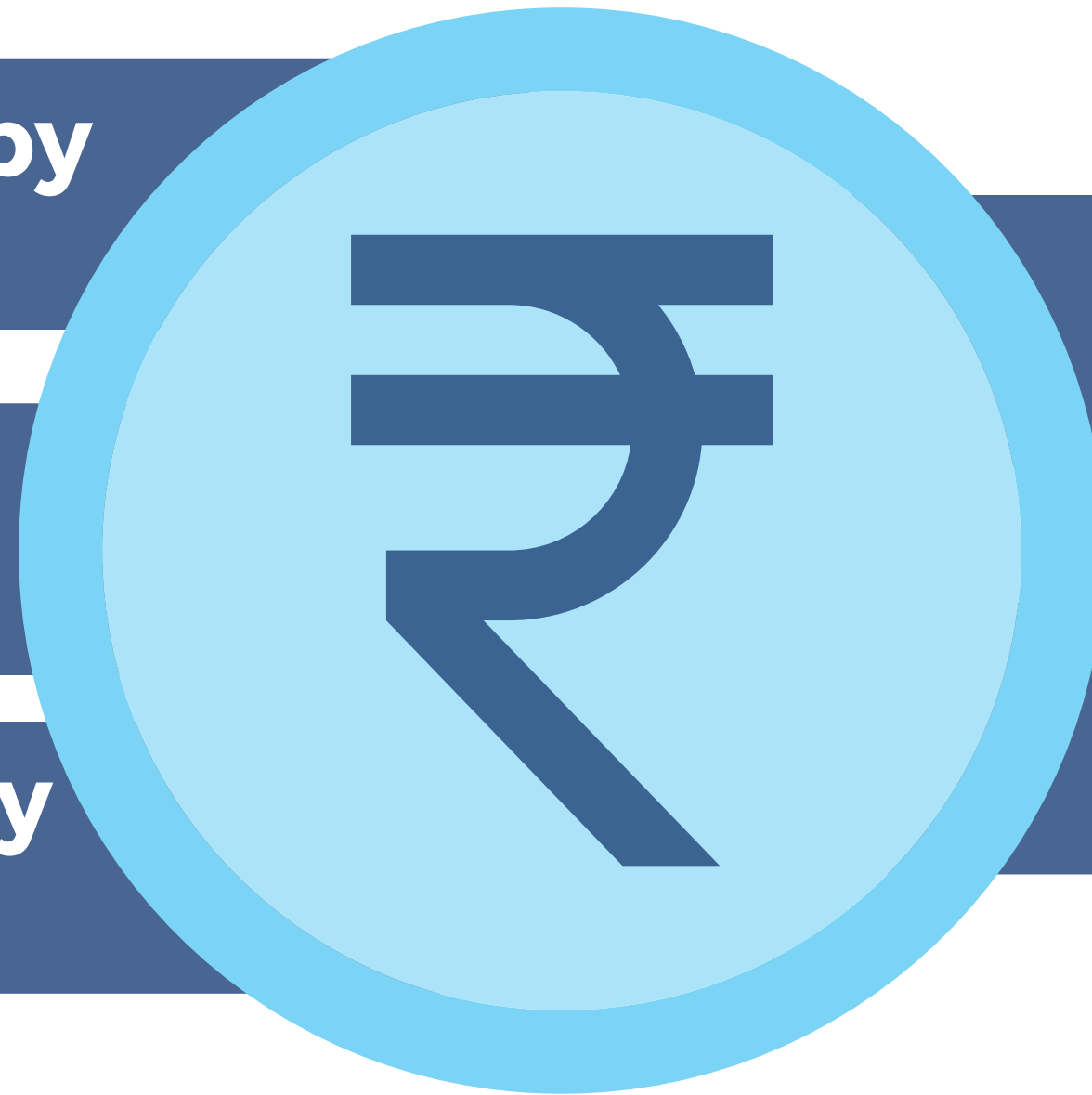
Basis of Classification

There are various kinds of costs incurred in the production of goods or services, and these costs are categorised systematically.

Classification by Nature

Classification by Functions

Classification by Traceability



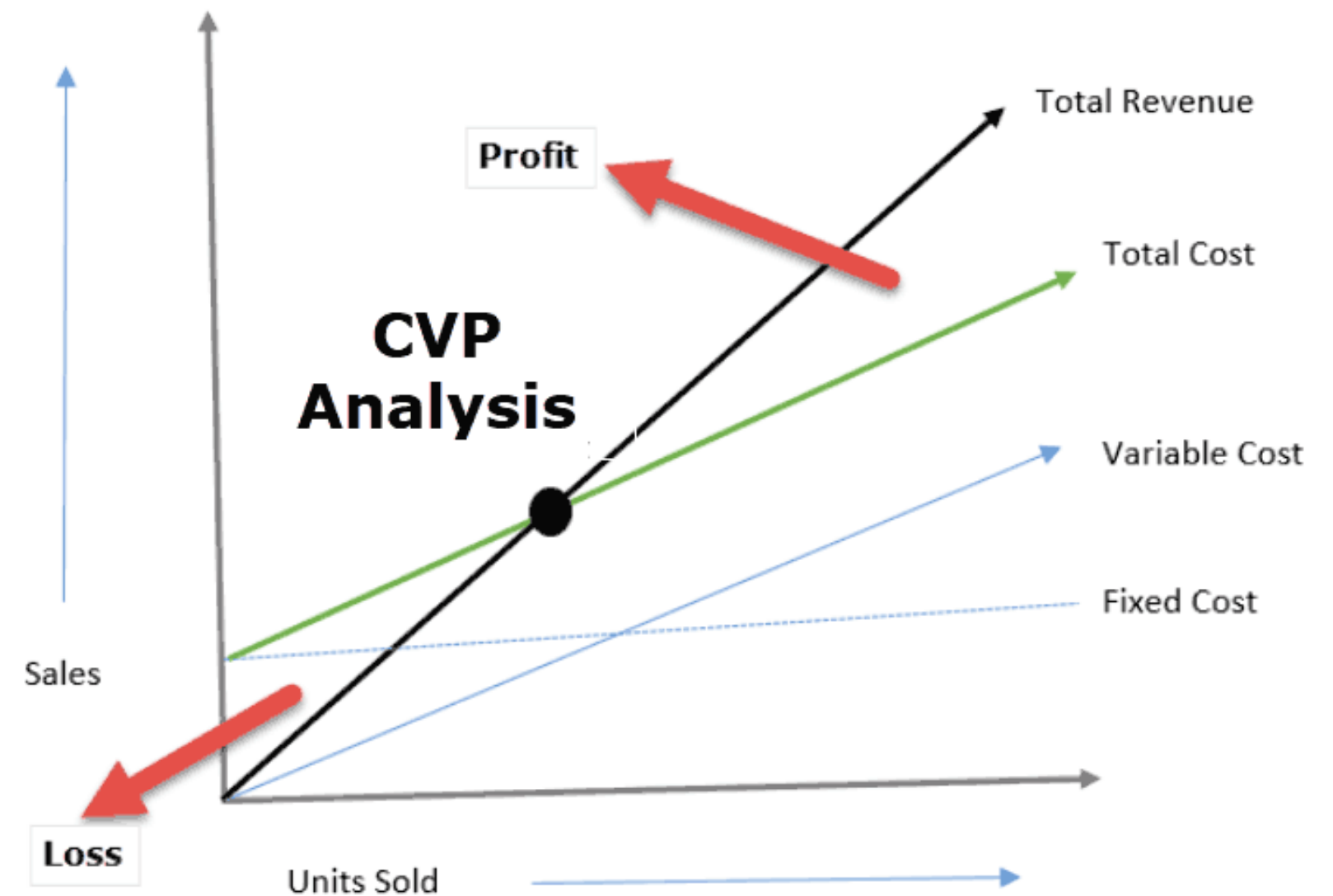
Classification by Normality

Classification by Time



Cost-Volume-Profit (CVP) Analysis

- Cost-volume-profit (CVP) analysis is a way to find out how changes in variable and fixed costs affect a firm's profit.
- CVP analysis includes the analysis of sales price, fixed costs, variable costs, the number of goods sold, and how it affects the profit of the business.
- CVP analysis helps management in finding out the relationship between cost and revenue to generate profit.



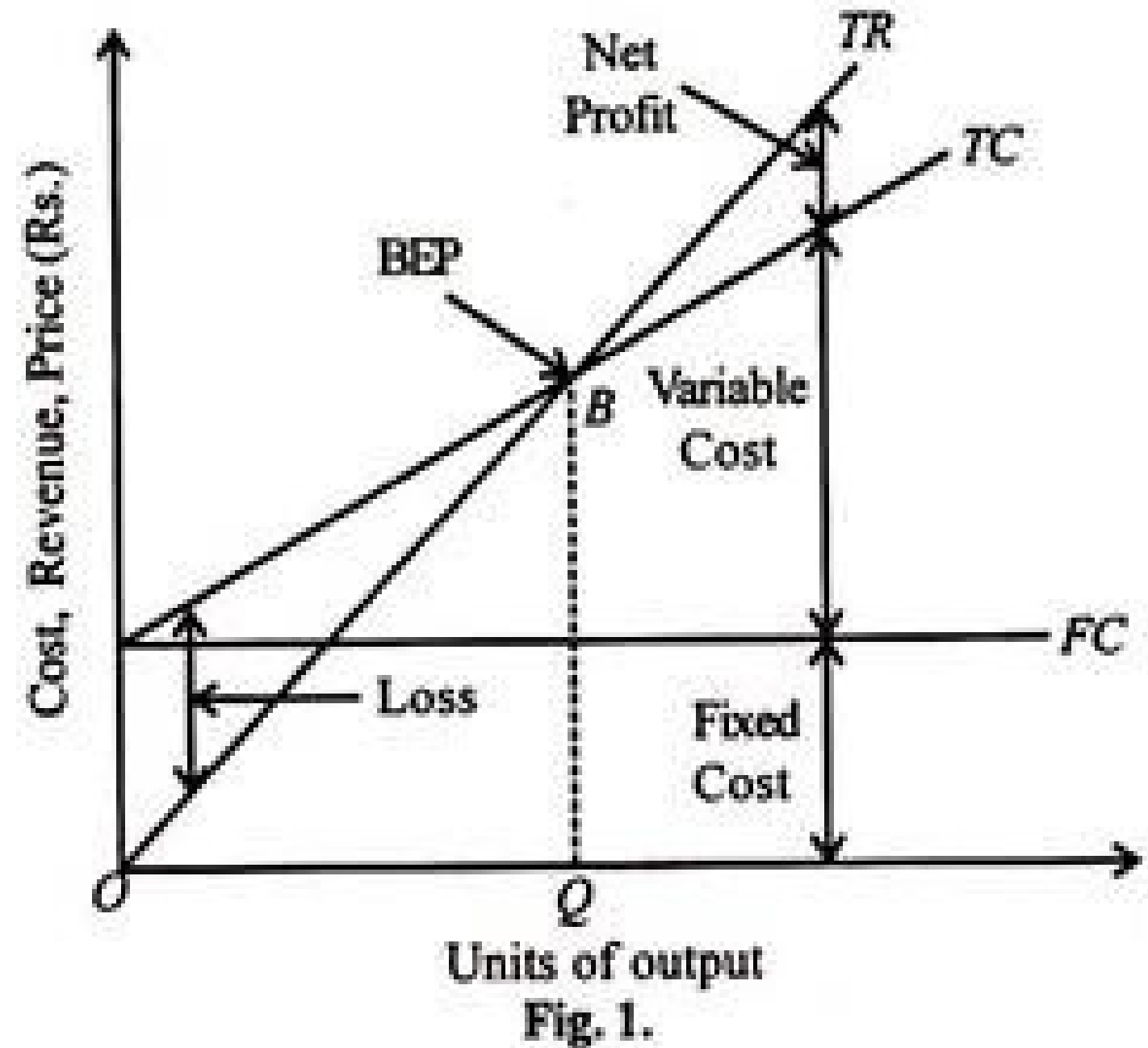
$$\text{No of Units Sold} \times \text{Price Per Units} = \text{No of Units Sold} \times \text{Variable Cost Units} + \text{Fixed Cost} + \text{Profit}$$



Break-Even Point (BEP) Analysis

- In a business scenario, the break-even point is a perimeter at which the total expenses of the enterprise equals the total revenue generated.
- Reaching this point indicates that a business has overcome all the expenses and is no more in a state of loss.

Break-even point = Fixed cost/Price per cost – Variable cost



Example of CVP Analysis

XYZ wishes to make an annual profit of 1,000000 INR from the sale of appliances.

Details of manufacturing and annual capacity are as follows:

Production Capacity: 10,000 units

Fixed Cost: 30,000 INR

Variable Cost/Unit: 30 INR

Based on the above information, let's plug the numbers in the CVP equation:

No of Units Sold x Price Per Units = No of units Sold x Variable Cost Units + Fixed cost + Profit

- $10000 \times P = (10000 \times 30) + 30000 + 100000$
- $10000P = (300000 + 30000 + 100000)$
- $10000P = 430000$
- Price per unit = $(430000 / 10000) = 43$

Thus price per unit comes out to 43 INR, which implies that XYZ will have to price its product at 43 INR and need to sell 10,000 units to achieve its targeted profit of 1,000000 INR.





Thank
you!