# GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY,HISAR

# Cost Volume Analysis

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# MEANING

- It is a systematic method of examining the relationship between selling price , sales revenue , volume of production and profits .
- CVP analysis is one of the most important tools of decision making.

# APPROACH

1. CONTRIBUTION MARGIN APPROACH
2. PROFIT VOLUME RATIO
3. BREAK EVEN ANALYSIS
4. MARGIN OF SAFETY

# CONTRIBUTUON MARGIN APPROACH

- CMA shows the excess of sales revenue over variable cost.
- Example – suppose a firm is selling 100 units @ Rs. 20 per unit . The variable cost for producing these units is Rs. 5 per unit and fixed cost incurred by the business is Rs. 1000.

Contribution = Sales revenue – variable cost

= (100×20) – (100×5)

= 2000 – 500 =1500

Profit = Contribution – fixed cost

= 1500 - 1000 = 500

# PROFIT VOLUME RATIO

- When contribution margin is expressed in percentage of sales is called P/V Ratio .

P/V Ratio = [Contribution /sales ] × 100

Example- Sales revenue of X ltd. Is Rs 50000, Variable cost is Rs 35000 and fixed cost is Rs 10000. Find out P/V ratio.

P/V ratio = [contribution/sales] × 100

= [15000/50000] × 100 = 30%

# BREAK EVEN ANALYSIS

- Break even point is no profit no loss point, where total cost is equal to total sales.
  - Break Even Sales (in amount)
    =Fixed cost/PV Ratio
    Break Even Sales (in units)
    = Fixed Cost/contribution per unit

# Example

Sales price per unit = Rs 50
Variable cost per unit = Rs 30
Fixed cost = Rs 20000
Calculate break even point

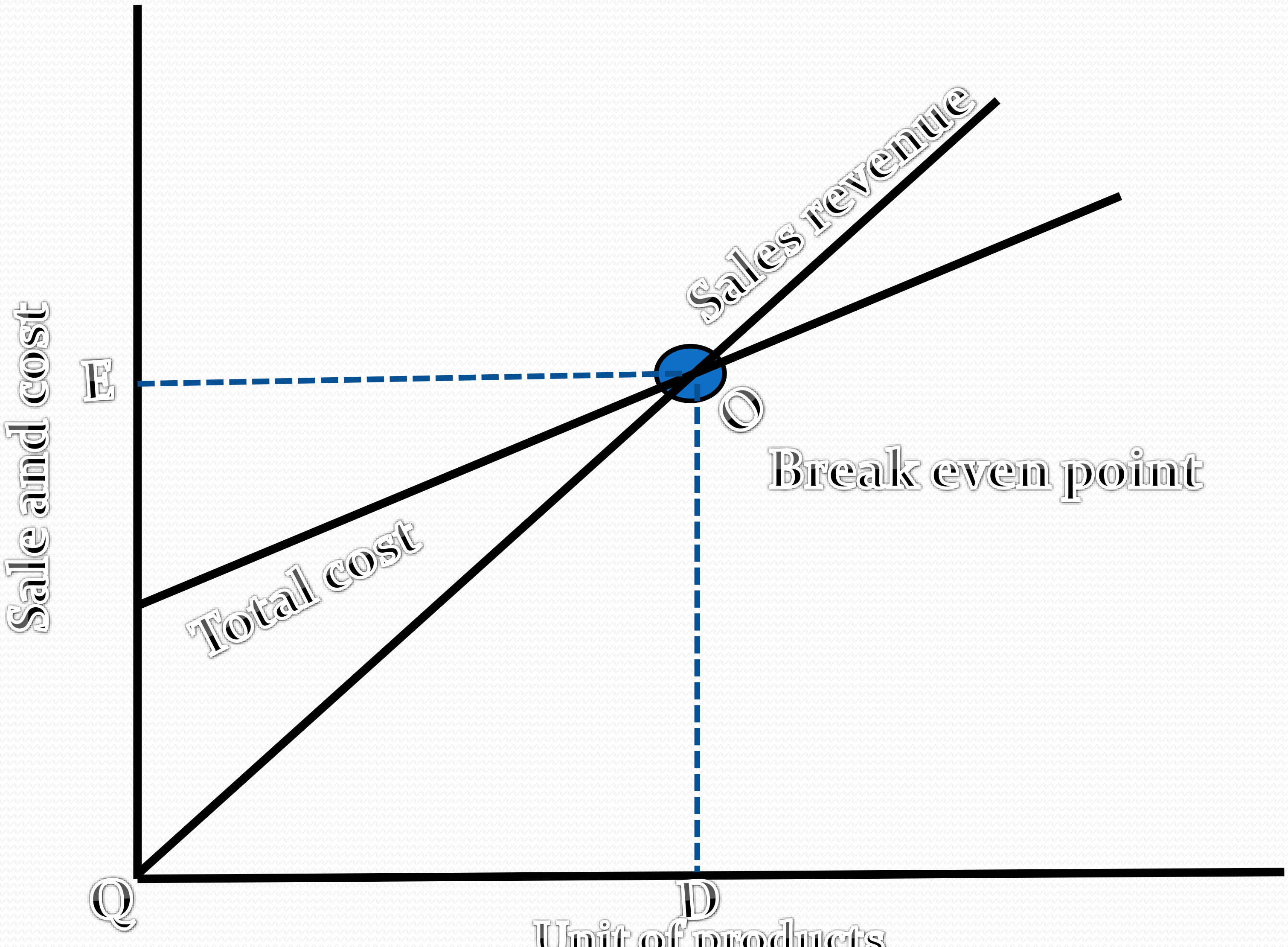
- Sol.

contribution = Rs 20 per unit (50-30)
Fixed cost = Rs 20000
P/V ratio = contribution/sales × 100
=20/50 × 100 = 40%

Break Even Point (in amount) = Fixed cost/PV ratio
= 20000/40 × 100 = 50000

Break Even Point (in units)
= Fixed cost/Contribution per unit
=20000/ 20 = 1000 units

# Break Even Chart



# MARGIN OF SAFETY

- It is the difference between actual sales and break even sales of a business.
- Margin of Safety = Actual sales – Sales at BEP

OR

- Margin of safety = Profit/PV ratio

## Application of cost volume profit analysis in business

Cost volume profit analysis is a very important technique of management accounting. It helps to solve many of the managerial problems like :

- Make or buy decisions.
- Product planning decisions.
- Product mix decisions.
- Profit planning decisions.
- Capacity planning decisions etc.


ANY
QUESTIONS?

Thank you