Numerical of Profit/Volume Ratio

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Difference between contribution and profit

- Contribution include profit and fixed cost both while profit does not include fixed cost
- contribution is based on the concept of marginal cost, while profit is based on common man concept of sales and cost
- Contribution above breakeven point become profit, while profit is expected only after covering variable and fixed cost

Formula for the calculation of P/V Ratio

$$P / V \text{ Ratio} = \frac{\text{Contribution} \times 100}{\text{Sales}}$$

or $C / S \times 100$

(Or)

$$\frac{\text{Fixed Cost} + \text{Profit}}{\text{Sales}} \times 100$$

(Or)

$$\frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \times 100$$

When profits and sales for two consecutive periods are given, the following formula can be applied:

$$\frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$$

P / V ratio is also used in making the following type of calculations

a) Calculation of Break even point.

b) Calculation of profit at a given level of sales.

c) Calculation of the volume of sales required to earn a given profit.

d) Calculation of profit when margin of safety (discuss in next class) is given.

e) Calculation of the volume of sales required to maintain the present level of profit if selling price is reduced.

The following information of B corp Ltd:

a) Sales ₹ 80,000;   Variable Cost ₹ 60,000
b) Sales ₹ 1,00,000; Fixed Cost   ₹ 30,000; Profit ₹ 20,000
c) Sales per unit ₹ 10; Variable Cost per unit ₹ 7
d) Variable Cost 60%

Find out Profit-Volume ratio in the following cases

The following information of ABC Ltd:

Sales	50,000
Profit	5,000
Fixed Cost	15,000

Find out Profit-Volume ratio in the following cases:

- Selling price increased by 20%
- Fixed cost is decreased by 10%
- Variable cost is decreased by 10%

For Solution kindly refer my video and also calculate the answer of third case.