Quadrant II – Transcript and Related Materials

Programme: Bachelor of Commerce (Honors) (Third Year)

Subject: Commerce

Paper Code: DSE - 3 -COD 110

Paper Title: Major III. Techniques of Costing

Unit: I Marginal Costing

Module Name: Marginal Costing Equation / Cost Volume Profit Analysis

Module No: 04

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Glossary :

- **Chart** means a paper on which information is displayed in the form of tables, graphs or diagram.
- **Analysis** means detailed examination of the elements.
- P/V Ratio means profit volume ratio.
- BEP means Break Even Point.
- V.C.= Variable cost
- F.C. = Fixed cost
- CVP Analysis = Cost Volume Profit Analysis.

Ex. Problem :

A manufacturer produces 1000 units of products annually. The marginal cost of each product is Rs. 400 and the product is sold for Rs. 500 per unit. Fixed cost incurred by the company is Rs. 10,000 annually. Calculate P/V Ratio and what would be the break - even point in terms of output and in terms of sales value?

Solution:

A. Contribution per unit = Sales – Variable cost
= Rs.500 – Rs. 400 = Rs. 100

B. P/V Ratio = Contribution p.u. / Sales p.u. x 100

= 100/500 x 100 = 20%

C. Break-even point (in units) = Fixed cost / Contribution per unit

= 40, 000 /100 = 400 units

D. Break-even point (in Rs.) = Break-even point x selling price p.u.

= 400 x 500 = 2,00,000

OR D. Break-even point (in Rs.) = Fixed cost / P/V Ratio

= 40,000 / 20% = 2,00,000.

Problem:

From the information given below, calculate P/V Ratio, Fixed expenses, Expected profit if sales is budgeted at Rs. 40, 000.

Year	Sales (Rs)	Profit (Rs)
2018	80, 000	12, 500
2019	1, 20, 000	22, 500

Solution:

P/V Ratio = (Change in profit Rs. / Change in sales Rs.) x 100

= 22, 500 – 12,500 / 1, 20, 000 – 80,000 x 100

= 10, 000 / 40, 000 x 100 = 25%

Contribution = S x P/V Ratio

= 80,000 x 25% = 20,000

Fixed cost = Contribution = Fixed cost + Profit

= 20,000 = F + 12,500

= F = 20, 000 – 12,500

Fixed Cost = Rs. 7,500

When sales is budgeted as Rs. 40, 000

Sales = Fixed cost + Profit / P/V Ratio

40,000 = 7500 + Profit / 25%

40,000 x 25/100 = 7500 + Profit

10,000 -7500 = Profit

Therefore Profit = Rs. 2,500. OR

Contribution = Sales x P/V Ratio

= Rs. 40, 000 x 25 / 100

= Rs.10,000

Profit = Contribution – Fixed cost

= 10,000 – 7,500= Rs. 2,500.