

# Financial management: application of cost volume profit analysis essay

[Business](#), [Accounting](#)



**ABSTRACT** Cost Volume Profit Analysis is a tool used to measure the profitability of a business based on its sales and the cost that it had incurred. This analysis would identify the number of units that the sales department or marketing department must sell in order to have a good margin of safety, attain a target profit or simply to breakeven.

Description and application of which would be described in detail in this paper. The different costs in terms of its relationship to volume and product cost is also defined in the paper so that the reader would have a brief background as to why the costs used in the formula were as such. Financial Management: Application of Cost Volume Profit Analysis to a Business

**Solution I.** Introduction Financial statements show the standing of a company in terms of its profitability, its assets, liabilities and owners' equity. However, managers do not rely on these statements alone. In order to determine whether a company is losing money or gaining money, it is important to analyze the sales and the cost that the company incurs.

In other words, accountants or managers must use the Cost Volume Profit (CVP) Analysis to determine the important data needed for corporate planning to improve its profit. Cost Volume Profit Analysis determines the break-even point in units and in dollars. The Breakeven is the point where the total profit is equal to the total cost incurred. Garrison and Noreen (2003) define the breakeven point as the point where profit is equal to zero.

It is very important to determine the breakeven point in both units and dollars because this would serve as the basis for the quota of the sales department. The Cost Volume Profit Analysis could also be used as a tool to

determine the number of units to sell for a certain target profit. This analysis tool also includes the analysis on the margin of safety of the business, the operating leverage and the breakeven sales for multiple products using sales mix as a basis for computation. The formulas concerning the CVP analysis can be found in Appendix A.

II. Commonly Used Cost in Financial Management Before proceeding to the application of Cost Volume Profit Analysis, it is important to gain a little knowledge on the cost behavior and the definition of each cost. There are different types of cost in accounting. Examples are the fixed costs, variable costs, direct cost, indirect cost and the sunk cost. Based on the relationship of cost to volume, there is the fixed cost and the variable cost.

Anthony et al. (2007) states that fixed costs are items of cost that in total do not vary with volume. However, in terms of cost per unit, fixed cost decreases as volume of activity increases. An example of a fixed cost is the salary of the production supervisor in the plant. The opposite is true for the variable cost. Anthony et al. (2007) defines variable costs as costs that is proportional to the activity level within the range in total. On the other hand, for its cost per unit, variable cost remains the same over a wide range of activity.

An example of this is the materials cost. Materials cost would depend on the number of materials needed to produce a certain number of units, however the cost of material per unit is fixed. In terms of product costing, the type of cost associated to this is the Direct cost and Indirect cost. Anthony et al.

(2007) define direct cost as the cost that can easily be traced to a unit of product or other costs while Indirect cost are costs that cannot be easily traced to a unit of product or other cost. An example of direct cost is the direct labor and the direct materials. Indirect cost example is the Administrative salary of the personnel in the company. It would be hard to trace how much cost of the salaries of the administrative staff is used in the manufacturing department. Sunk cost is a cost that cannot be changed by any decisions.

These costs are still incurred no matter what the management does. A classic example of sunk cost is depreciation. III. Application of CVP Analysis in the Business The CVP Analysis can be used to any business. In order to further understand this concept, this paper would provide a business application of this. For example, a friend owns a bakery shop. His monthly expenses for his utilities and shop maintenance is \$1, 000.

Cost of a piece of bread that he sells is 0. 25 cents (this includes material and labor) and selling price of which is \$1. 25. How many units must your friend sell in a month in order to recover his expenses? Using the formula in Appendix A, Contribution margin per bread is equal to  $(CM = \$1. 25 - 0. 25)$  \$1. 00.

This value would then be used as the divisor for the fixed expenses in order to determine the Breakeven value in units. Based on the formula in Appendix A for Breakeven units, your friend must sell at least  $(BE_{unit} = 1, 000 / \$1)$  1, 000 pieces of bread per month in order to recover his expenses and earn

profit. If for example your friend wants to know how many pieces of bread does he need to sell in order to earn \$500. Using the same formula, the \$500 is then added to the fixed expenses and then this is divided by the contribution margin which is \$1.00.

In the second condition, your friend must then sell 1,500 pieces of bread in order to gain a profit of \$500. IV. Conclusion and Recommendation

As a conclusion, there are many other applications of the CVP analysis.

However, there are several assumptions that the user must make before using this kind of analysis. The analyst must note that before using this particular analysis the selling price should be constant.

It is also important to consider the linear relationship of the cost. For multiple products, sales mix must be constant. This is so because in a real business situation costs and sales mix maybe non-linear and selling price of a particular item might be fluctuating. This is to ensure the accuracy of the analysis being made. APPENDIX A. RELATED FORMULAS TO CVP

#### ANALYSIS BREAKEVEN COMPUTATIONS

The Equation Method where Sales must be equal to the expenses and

profits  
Note: For Breakeven Analysis, Profit is equal to zero  
Sales = Variable expenses + Fixed expenses + Profits

The Contribution Margin  
Method  
BE units = Fixed Expenses / Unit Contribution Margin  
BE sales = Fixed

Expenses / CM Ratio  
Where Unit Contribution Margin = Selling Price per unit - Product cost  
CM Ratio = Unit Contribution Margin / Unit Selling

Price  
TARGET PROFIT ANALYSIS  
The Equation Method where Sales must

be equal to the expenses and profits  
Note: Profit is equal to target  
 $\text{Sales} = \text{Variable expenses} + \text{Fixed expenses} + \text{Profits}$

The Contribution Margin Method  
 $\text{BE units} = (\text{Fixed Expenses} + \text{Target Profit}) / \text{Unit Contribution Margin}$   
Where  $\text{Unit Contribution Margin} = \text{Selling Price per unit} - \text{Product cost}$   
MARGIN OF SAFETY  
 $\text{Margin of Safety} = \text{Total Sales} - \text{Breakeven Sales}$   
REFERENCES  
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