

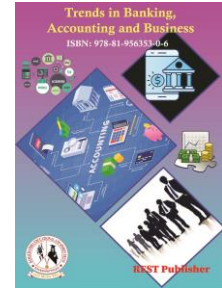


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## **A Study on Cost Volume Profitability Analysis of Schaeffler India Limited at Hosur**

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**Abstract:** *This research intends to know how much the Cost-Volume-Profit Analysis is used to planning and making decisions in the business environment. The research has been done in in the company, using the combination of econometric models in order for the research to be as accurate and to have positive effect. In whom case the hypotheses are verified, which are raised. The results of this research showed that amount of product produced has positive effect on sales value to service companies and raising profit to the business environment, also exists an important relationship between production and sales, and CVP analysis contributes to growth profitability and break-even in the business environment. So, as conclusion based on the results found from research, cost-volume-profit analysis should be used for making decisions, because the risk threshold evidently decreases by doing such analysis. The great demand from steel companies for products it significantly increases profit and producing to the company.*

**Keywords:** *CVP analysis, break even, costs, production, decision making, margin of contribution, risk threshold*

### **1. INTRODUCTION**

The cost volume profit analysis, commonly referred to as CVP, is a planning process that management uses to predict the future volume of activity, costs incurred, sales made, and profits received. In other words, it's a mathematical equation that computes how changes in costs and sales will affect income in future periods. Cost-volume-profit (CVP) analysis is a method of cost accounting that looks at the impact that varying levels of costs and volume have on operating profit. A number of techniques can be used as an aid to management in this respect. One such technique is the cost-volume-profit analysis. The term cost volume profit analysis is interpreted in the narrower as well as broader sense. Used in its narrower sense, it is concerned with finding out the "crisis point", (i.e., break-even point) i.e., level of activity when the total cost equals total sales value. In other words, it helps in locating the level of output which evenly breaks the costs and revenues.

### **2. ABOUT THE STUDY**

Cost Volume profit analysis is an important tool of profit planning profit is the most important measure of a firm's performance in the Market Economy. Profit is a guide for allocating resource efficiency. The analytical technique used to study the behavior of profit in response to the charges in volume costs and prices is called profit Cost Volume analysis. It is a device used to determine the usefulness of the profit planning process of the firm. It should be noted that the formal profit planning profit analysis is helps to determine the minimum sales volume to avoid losses and the sales volume at which the profit goal of the firm will be achieved it's an ultimate objective, it helps management in seeking the most profitable contribution of cost and volume. Cost Volume profit analysis may be defined as management tool showing the relationship between various ingredients of profit planning viz., (both fixed & variable) selling price and volume of activity.

### 3. REVIEWS

Okerefor, & Ogunbangbe (2018) discovered that cost volume-benefit examination is considered to a substantial degree in the basic leadership procedure of assembling businesses and thus influence the different choices made by assembling enterprises. He contemplated the Application of “Cost-Volume-Profit” Analysis in the Hotel Industry in light of review information of high-positioning lodgings in the north-east locale of Bulgaria, inquire about outcomes show that examiners apply the CVP investigation to all parts of administration bookkeeping, which obviously discusses its criticalness for era of information on an administration

Waller et Fawcett (2019) conducted a study on “deployment decision of a new distribution”. In this study the costs are associated with distribution process. The study conducts the inventory costs and labor costs and other factors may change over the period. The findings for the difficulties for the transportation frequencies are limited and also it proves that economic way is influenced by different variables in different intensity.

Dan et al (2019) explained, the effects of advertisement and interpersonal communication on profit. That study found different effect on profitability on the basis of different stages of product life cycle. At the initial stage advertising costs was very high and as the product moves towards maturity firm gradually reduce its advertising expenses. He outlined financial ratios such as Gross Profit Margin, Operating Profit Margin and Net Profit Margin as the main indicators of profitability.

Abdullahi (2019) describes cost volume profit analysis as an estimate of how changes in costs (Both variable and Fixed) sales volume, and price effect the company’s profit. According to him, cost-volume profit analysis is cost plans relating to a single cost unit. Because cost-volume profit analysis purports to be what cost should be, any deviation represents a measure of performance. The predetermined costs are known as cost-volume profit analysis and the difference between the cost-volume-profit analysis and actual costs are known as a variance

Kim (2020) developed a micro approach to find breakeven points and target profit. This study attempted to develop a systematic approach to refine the answers of two basic issues in the CVP analysis: break-even point and target profit. He suggests that an analysis of production

targets and budgets can be used as a management tool in making decisions. In government work units, the budget is the highest expenditure limit. Thus, based on standard input costs in performance-based budgeting, analysis of the amount of output and amount of costs can be required. Stated that the CVP analysis was a tool to assess the impact of changes in value, volume, variable costs or fixed costs on benefits. Moreover, CVP was the basis for pricing, deciding short-term options, target costs and value of the exchange.

Verdon et al (2020) while studying the relationship between advertising and aggregate demand found that advertising has a positive relation with aggregate demand. At the global world, many valuable studies are available on industry and related sectors on various aspects. But such studies are not many in Bangladesh especially in the aspect of selling and distribution cost or marketing costs & promotional cost and their impact on sales revenue and profit. In such a context a brief review on some selected studies are made below with reference to aspects of selling and distribution cost or marketing costs & promotional costs.

Husain S. and Alnefae S. (2020) examined the statistical significance of the impact of cost value profitable analysis management on profitability of the selected listed agriculture and companies of Saudi Arabia and the research aims at finding out the relationship between the components of cost value profitable analysis management and the profitability of firms. They found that the regression analysis revealed that there is no significant impact of cost value profitable analysis management on profitability of the selected listed agriculture and companies of Saudi Arabia. The above review revealed that there is some consensus on processing and safety and the economic impact of selling & distribution or marketing cost and advertising cost on net profit although some studies have shown diverse results.

Lulaj and Etem Iseni (2021) argued that the CVP analysis was an important content to plan and make decisions in business. The research was carried out in manufacturing and service businesses, using a combination of econometric models to make this research accurate and effective. The results showed that the number of produced products had a positive impact on the sales for service companies and increased profits for the manufacturing business, there was an important relationship between production and sales.

Stoenoiu (2021) conducted a study on the sensitivity of the indicators used in the CVP analysis. The research was based on the need to optimize and manage costs due to unforeseen economic events in all areas. Therefore, this study analyzed

the dependency relationship among the three.

CVP indices to highlight the need for permanent monitoring and optimization of these variables to provide a reliable basis for management decisions. The research showed the extent and significance of the changes toward one or more variables due to the direct relationship and inversion between these variables.

Ahmed (2022) CVP analysis can play an important role by providing the management with information regarding financial result if a specified level of activity or volume fluctuates, information on probable effects of changes in selling price and other variables. CVP analysis focuses on prices, revenues, volume, costs, profits and sales mix and on the inter-relationship between them during the short-run. The short run is generally considered a period of one year or less than one year during which the production of a business enterprise cannot be increased and is limited to the available current operating capacity of the enterprise.

Adenji (2022) states that cost-volume- profit examination are foreordained costs, target costs or deliberately prearranged costs which administration attempts to accomplish with a view to setting up or achieving most extreme proficiency in the creation procedure. He characterizes cost-volume- profit examination as foreordained cost; they are taken a toll that ought to be damaged under productive working conditions. The cost volume profit examination might be resolved on various bases.

Bornia (2022) conducted a study on “calculation to contribution margin”. The study conducts the shutdown point concept is mainly true for the analysis of decision to a product line. He has performed clearly about the primary reason of clearable costs on the contribution margin. He conducted a study on “changes in costs”. The study shows that the cost volume profit analysis of both fixed and variable. It has been known by the price and sales volume of the company’s profit.

#### **4. OBJECTIVES OF THE STUDY**

- To find out cost volume and profitability of Schaeffler India Limited products
- To know the financial soundness and financial efficiency of the company
- To find out the profitability position of the company products
- To identify the margin of safety and margin of safety ratio of the company
- To understand the level of cost to be reduced to achieve a desired profit
- To analyses the degree of operating leverage of the industry

#### **5. SCOPE OF THE STUDY**

This study on cost volume profit analysis of Schaeffler India Limited helps to know about the profitability of the business. It also provides a clear-cut picture about the performance of the company. A common application of cost volume profit analysis is the determination of the quantity of output needed to earn a target profit or to break even. Cost volume profit analysis is a technique used to ascertain the firm’s ability to determine a firm’s break-even point and profitability. This technique used in management accounting in which cost are analysis according to cost behavior characteristics into fixed costs and variable cost and compared to sales revenue in order to determine the level of sales volume, sales value or production at which the business makes neither a profit nor a loss (see BEP). This technique also used in decision making process.

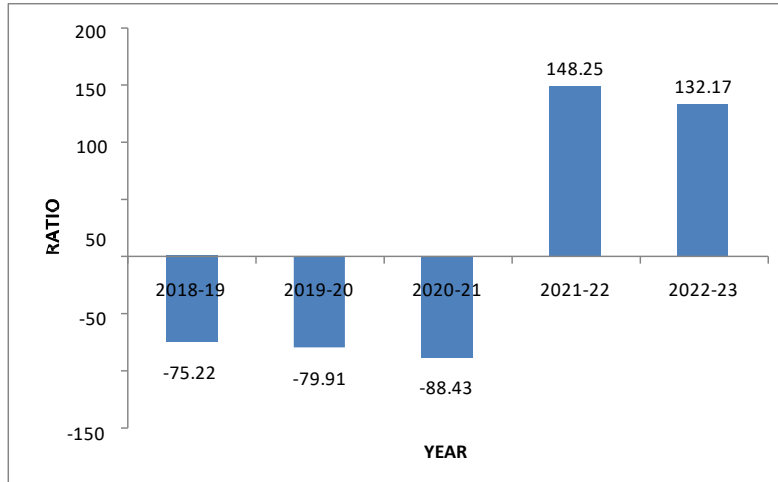
#### **6. RESEARCH METHODOLOGY**

Research is a process in which the researchers wish to find out the end result for a given problem and thus the solution helps in future course of action. The research has been defined as “A careful investigation or enquiry especially through search for new facts in branch of knowledge”

## 7. DATA ANALYSIS

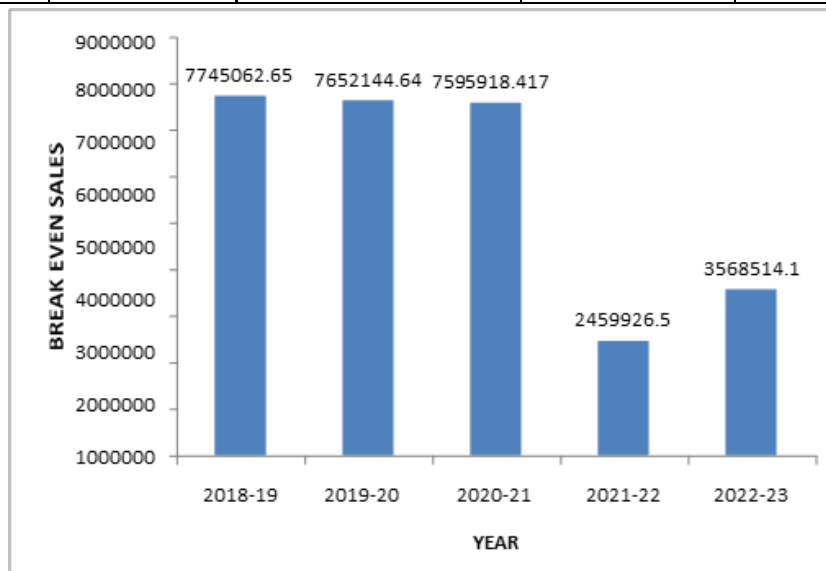
### Net Profit Ratio

Year	Net profit	Sales	Net margin (%)
2018-19	(145106159.32)	1982888080.79	-75.22
2019-20	(168744358.94)	211164520.05	-79.91
2020-21	(198480945.70)	224425407.37	-88.43
2021-22	221565218.24	152540443.37	148.25
2022-23	160925573.68	121756398.90	132.17



### Break Even Sales

Year	Fixed cost	Total contribution	Total sales	Break even Sales
2018-19	6013083.76	149753751.29	192888080	7745062.65
2019-20	5889013.19	162510080.81	211164520.05	7652144.64
2020-21	5748898.55	169854233.3	224425407.37	7595918.417
2021-22	1691381.69	104882854.08	152540443.37	2459926.50
2022-23	2305704.54	78669797.34	121756398.90	3568514.10



## 8. FINDINGS

1. The high net profit margin in 2021-22 was 148.25. Next high profit in the year of 2022-23 is 132.17. In this study period of 2018-19 to 2022-23 is increasing trend because first three years is loss (-75.22, -79.91, -88.43). The last two years is earning profit.
2. The current ratio of the firm showed and decreasing trend, later in 2019 the current ratio got declined because of the increase in current liability. The high current ratio shows the favorable condition of the firm. So, in 2019-20, the firm got high current ratio at 4.00.
3. First three years is same level position. Later it had decreased at 6.27 in the year of 2021-22. Higher the ratio better will be the position. But here it was decreased. So, there is no better position during the period of 2021-22 to 2022-23.
4. From the year 2019-23, there are no big changes in their breakeven sales. Again, in the year of 2021, the breakeven sales got increase to compare with 2021. But this increase not highly affects their profit.

## 9. SUGGESTIONS

The company should develop and concentrate with growth of working capital position. The company should minimize the production cost and its increase the profit level. The management should try to be more attentive to increase the cash position to meet its short term liabilities. The management should try to decrease the current liabilities. The management should make the payments earlier. This may be due to better liquid resources and working capital as it's is evident from current ratio and liquid ratio. The management should quick recovery of money from debtors. It will increase the cash position of the company.

## 10. CONCLUSION

From the above study the research has concluded that the financial strength and weakness in the company products at Erode the analysis indicate present position is not satisfactory because its creditors turnover ratio working capital turnover ratio and current asset turnover ratio the findings and suggestion given the study will help the company to enhance its financial strength. In this study an analysis of cost volume profit of the company was done. The cost volume profit analyses are essential method for identifying the actual profit and sales value of the company. In this study the impact of variable, fixed costs and unit of production are used. The study shows that the break - even point and profit volume ratio during the year of 2019-2023 of the company. It also allows the sales and operations to achieve the targeted income of the company

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