# A Study on Cost volume profit analysis of Sri Jayashree food corn Products

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***Abstract* - Cost-volume-profit (CVP) analysis is one of the most common-and-important chapters in an introductory managerial accounting course. While a CVP analysis for a single-product company is relatively easier to be illustrated, the CVP analysis for a multi-product company necessarily takes extra steps to illustrate. For the case of a multi-product company having a sales mix ratio among their products, this study developed a micro approach to the handling of decimals, if appearing, when the company finds their break-even point and target profit point. This study exemplifies how the developed approach gets to closer answers to a break-even point and a target profit point than an existing approach.**

***Index Terms* - CVP analysis, break even, Ratio Analysis, Trend Analysis.**

## 1.INTRODUCTION

### DEFINITION

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.

### 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 behaviour 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 objectives, 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.

### OBJECTIVES OF THE STUDY

1. To find out cost volume and profitability of Sri Jayashree food corn Products
2. To find out B.E.P and the analysis of B.E.P
3. To know the financial soundness and financial efficiency of the company
4. To find out the profitability position of food Products Limited

### SCOPE OF THE STUDY

This study on Cost Volume Profit Analysis of Food Products 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 behaviour 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.

### LIMITATIONS OF THE STUDY

- The financial data required for the study has been obtained from the secondary data or source only viz. Profit and Loss Account and Balance sheet.
- This study is Limited to available accounts and the books of accounts which were produced on demand
- Ratios are markets out on the basis of money volume only. They are not of the real value
- This study is limited of ratio analysis of five years
- The limitations of ratio analysis and Break Even Analysis are also applicable to this study.

## 2. REVIEW OF LITERATURE

Abdullahi (2015) 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 (2015) developed a micro approach to find break-even 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.

Horngren et al. (2015) suggest that an analysis of production targets and budgets can be used as a management tool in making decisions.

Granof, Khumawala, Calabrese, & Smith, 2016). 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.

Punniyamoorthy (2017) 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.

Jiang and Shen (2017) conducted an analysis of the restaurant's cost, break-even, safe operation level, and the impact of restaurant profit due to changes switch factor. This result helped the restaurant manager make better decisions by analyzing multi-element positioning in the service industry and examining the relationship between the key elements of the service industry and the profit due to factor change.

Walidi (2017). Standard input cost is a benchmark cost in the form of unit prices, tariffs, and indices, which are set to produce cost component outputs in work plans and budgets.

Lulaj and Etem Iseni (2018) 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 amount 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 (2018) 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.

Enyi (2019) compared the effect of the weighted contribution margin (WCM) and the reversed contribution margin ratio (RCMR). The result showed that WCM lacked analytical efficiency and generates suboptimal products mix because it ignored the inverse relationship between a product's contribution margin ratio (CMR) and its break-even point (BEP). The paper suggested the use of the RCMR with the effects of the CMR/ BEP measurement.

## 3.RESEARCH METHODOLOGY

### RESEARCH DESIGN

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."

RESEARCH DESIGN
The research design of the present study is descriptive, analytical and conclusive.

SOURCES OF DATA
Only the secondary data has been used in project study. The researcher himself being an external one and doing study as a part of curriculum has had to depend mainly upon secondary data for the different aspects.
Hence the data required for the study where collected mostly from the annual report manuals and accounts of Sri Jayashree food corn Products, and various magazines and journals.

PERIOD OF THE STUDY
The data were collected for Five years from 2016-2020.

WORK OF ANALYSIS
To arrive at research findings and the conclusion of the present study, ratio analysis, comparative balance sheet analysis and Trend analysis have been used.

Tools Used for Analysis of Data
The following analytical tools are used;

- Ratio Analysis
- Trend Analysis

RATIO ANALYSIS
The turnover ratios or activity ratios indicate the efficiency with which the capital employed is rotated in the business. The overall profitability of the business depends on two factors: (i) the rate of return of capital employed; and (ii) the turnover, i.e., the speed at which the capital employed in the business rotates.

TREND ANALYSIS:
The 'trend' signifies a tendency and as such the review and appraisal of tendency in accounting variables are nothing but the trend analysis. Trend analysis is carried out by calculating trend ratio. Trend analysis is significant for forecasting and budgeting. Trend analysis discloses the change in financial and the operating data between specific periods.

4.DATA ANALYSIS AND INTERPRETATION

4.1 RATIO ANALYSIS:
Ratio is a relationship between two figures expressed mathematically. Financial ratio provides numerical relation between two relevant financial data. Financial ratios are calculated from the Balance sheet and Profit & Loss A/c. The relationship can be either expressed as a percent on as a quotient. Ratios summarize the data for easy understanding, comparison and interpretation.
The Ratio Analysis is the financial statement. It provides a yardstick to measure the relationships between the variable of figures. In work the Financial Analysis is necessary to know different angles.

PROFITABILITY RATIOS:
The purpose of study and analysis of profitability ratios are to help assessing the adequacy of profits earned by the company and also to discover whether profitability is increasing or declining. The profitability of the firm is the net result of a large number of policies and decisions. The profitability ratios show the combined effects of liquidity, asset management and debt management on operating results. Profitability ratios are measured with reference to sales, capital employed, total assets employed etc. The major profitability rates are as follows,

4.1. A. NET PROFIT RATIO:
This ratio is designed to focus attention on the net profit arising from business operations before interest and tax is deducted. This conversion is to express profit after tax and interest and as a percentage of sales. This ratio measures the efficiency of operation of the company.
The ratio is calculated as follows:
Net Profit Ratio= Net Profit before Interest and Tax/Sales X 100

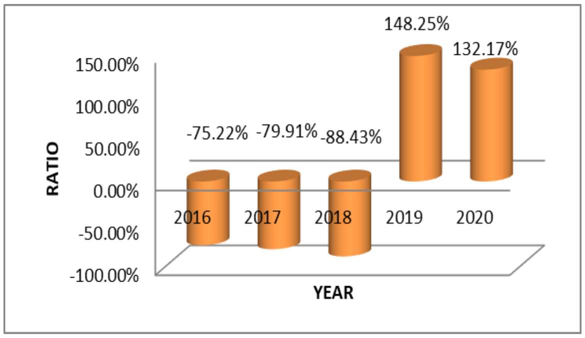
4.1. A. TABLE SHOWING NET PROFIT RATIO

| Year | Net profit | Sales | Net margin(%) |
|---|---|---|---|
| 2016 | (145106159.32) | 1982888080.79 | -75.22% |
| 2017 | (168744358.94) | 211164520.05 | -79.91% |
| 2018 | (198480945.70) | 224425407.37 | -88.43% |
| 2019 | 221565218.24 | 152540443.37 | 148.25% |
| 2020 | 160925573.68 | 121756398.90 | 132.17% |

Source: Annual report

Inference:
The above table shows that, the high net profit margin in 2019. It is because of high profit in the year of 2019, from 2019-20 it shows the increasing trend. From 2016 to 2018 it shows the low not profit margin.

4.1. H. CHART SHOWING RETURN ON ASSET




4.1. B. CURRENT RATIO:
Current ratio is the most common ratio for measuring liquidity. The current ratio is the ratio of total current assets to total current liabilities. Current ratio of affirm measures its term solvency i.e. ability to meet short term obligations. Current assets mean assets that will either be used up or converted into cash within a year's time or during the normal operating cycle of the business, whichever is longer.
Current assets= Current assets/ Current liabilities

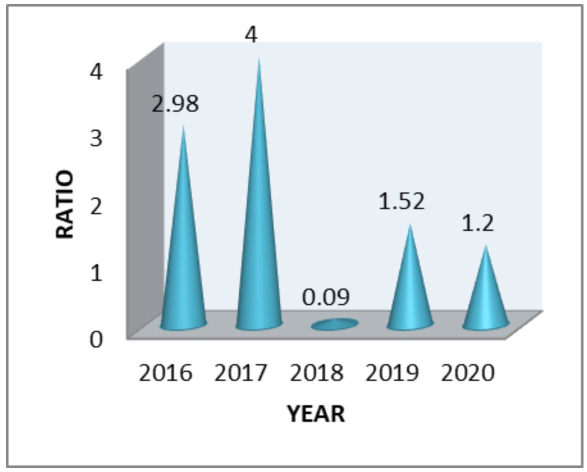
4.1. B. TABLE SHOWING CURRENT RATIO

| Year | Current assets | Current liabilities | Ratio |
|---|---|---|---|
| 2016 | 145599634.9 | 48816088.59 | 2.98 |
| 2017 | 1456533878.1 | 36618215.22 | 4.00 |
| 2018 | 45096395.1 | 498984662.78 | 0.09 |
| 2019 | 69790005.35 | 44943287.71 | 1.52 |
| 2020 | 39448556.59 | 32864351.27 | 1.2 |

Source: Annual report

Inference:
The above table shows, for the two years i.e. from 2016-2017 the current ratio of the firm showed and increasing trend, later in 2018 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 2017, the firm got high current ratio at 4.00.

4.1. B. CHART SHOWING CURRENT RATIO




4.1. C. RESERVE TO EQUITY SHARE CAPITAL RATIO
A very high indicates a conservative dividend policy and increase ploughing back of profits. Higher the ratio better will be the position.
Reserves to equity capital ratio = Revenue reserves / Equity capital x100

4.1. C. TABLE SHOWING RESERVE TO EQUITY SHARE CAPITAL RATIO

| Year | Reserve and surplus | Share capital | Ratio |
|---|---|---|---|
| 2016 | 334534139.25 | 40414000.00 | 8.27 |
| 2017 | 334534139.25 | 40414000.00 | 8.27 |
| 2018 | 334534139.25 | 40414000.00 | 8.27 |
| 2019 | 253598494.25 | 40414000.00 | 6.27 |
| 2020 | 253598494.25 | 40414000.00 | 6.27 |

Source: Annual report
Inference:
The above table shows the reserve and surplus to equity capital ratio. From the year 2016-20 the ratio is 8.27. Later it had decreased at 6.27. Higher the ratio better will be the position. But here it was decreased. So there is no better position during the period of 2017-2018.

## 5.FINDINGS

- In the year 2016 to 2018 the company showed a low Net Profit margin. In the year 2019 it showed the highest net profit margin. It is because of high profit in the year of 2019, from 2019-2020 it shows the increasing trend.
- From2016 to 17 the current ratio of the firm showed an increasing trend, later in 2018 the

current ratio got declined because of the increase in current liability.

- ROI shows the earning capacity of the company in the year 2017 is maximum. This is because of high earnings before interest and taxes of a company.
- PAT to EBIT ratio shows a fluctuating trend and it has reached its maximum in the year 2017 at 100.08%.

## 6.SUGGESTION

- 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 it short term liabilities.
- The management should try to decrease the current liabilities.

## 6.CONCLUSION

From the above study the research has conclude that the financial strength and weakness in the Sri Jayashree food corn products at Salem the analysis indicate present position in 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

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