A Study Of Cost Volume Profit Analysis At Food Products At Venkataramana Food Specialities Limited

T.Sivagaran[1], Mr. T. Chandramohan[2]
[1, 2]Dept of Management Studies
[1, 2] Sri ManakulaVinayagar Engineering College

Abstract- *This study examines the application of Cost-Volume-Profit (CVP) Analysis in improving financial performance and decision-making at Venkataramana Food Specialities Limited (VFSL), a leading Indian snack manufacturer. The research aims to analyze the interrelationship between cost, volume, and profit to evaluate how CVP tools such as contribution margin, break even point, and profit analysis assist in managerial planning and control. Using secondary data from VFSL's financial statements for the period 2020–2024, the study identifies trends in sales, costs, and profitability. The findings reveal a steady rise in sales revenue—from ₹11,906.74 crore in 2020 to ₹19,843.53 crore in 2024—and a significant increase in contribution margin and CVP profit, highlighting effective cost control and strategic pricing. The break-even point consistently declined until 2023, reflecting improved efficiency and stronger cost management. Despite minor sales fluctuations in 2024, profitability continued to grow due to optimized fixed and variable cost structures. The study concludes that CVP analysis serves as a vital managerial accounting tool that enhances forecasting accuracy, pricing strategy, and profit planning. It recommends continued investment in automation, AI-based forecasting, and market expansion to sustain long-term profitability and financial resilience.*

Keywords- Cost-Volume-Profit Analysis, Contribution Margin, Break-Even Point, Financial Performance, Managerial Decision-Making, Cost Management, Profit Planning

I. INTRODUCTION

In today's competitive and cost-sensitive business environment, financial decision- making plays a crucial role in ensuring the sustainability and profitability of enterprises. Among the various financial tools available, Cost-Volume-Profit (CVP) analysis stands out as a fundamental technique used to understand the interrelationship between cost, volume, and profit. CVP analysis aids in determining how changes in costs and volume affect a company's operating income and net profit. It is especially relevant for industries with fluctuating demand and variable costs — such as the food products industry — where accurate forecasting and cost control are essential.

The food products sector is characterized by intense competition, price sensitivity, seasonal fluctuations, and narrow profit margins. In such a context, effective cost management and pricing decisions are vital for financial performance. CVP analysis provides valuable insights into breakeven points, target profit levels, margin of safety, and the impact of changes in production volume or costs on profitability. It serves as a decision-support tool for pricing strategies, product mix optimization, budgeting, and cost control.

To explore the application and effectiveness of CVP analysis in a selected food product company, examining how managerial decisions are influenced by cost behaviour and sales volume. The objective is to assess how CVP techniques are utilized in real-world business scenarios to enhance profitability and support strategic planning.

Especially in manufacturing and consumer-driven industries like food products, managerial decisions must be grounded in reliable financial analysis tools. Among such tools, Cost-Volume-Profit (CVP) Analysis plays a pivotal role in managerial accounting and strategic decision-making. It provides a systematic approach to understanding the relationship between costs (fixed and variable), sales volume, selling prices, and profit. CVP analysis enables management to forecast the effects of business decisions on profitability, thereby serving as a guide in planning, budgeting, and controlling operational activities.

NEED OF THE STUDY

- The study helps analyse how cost, volume, and profit interact, enabling better managerial decisions in production, pricing, and budgeting.
- CVP analysis assists the company in setting realistic sales and profit targets by identifying break-even points and margins of safety.
- In a cost-sensitive industry like food products, the study helps in choosing appropriate pricing strategies and controlling variable and fixed costs.

- By analysing the effect of cost and volume on profit, the study supports the company's efforts to increase profitability in a competitive market.
- The study enables the company to simulate scenarios (e.g., cost increase, sales drop) and plan accordingly.

STATEMENT OF THE PROBLEM

In the highly competitive food industry, fluctuating raw material costs, variable demand, and pricing pressures affect the profitability of Venkataramana Food Specialities Limited. The company needs to understand how changes in cost, volume, and sales influence profit. Without proper Cost-Volume-Profit (CVP) analysis, it becomes difficult to identify the break-even point, margin of safety, and profit targets. Inefficient cost control or poor pricing decisions can reduce profitability. Hence, this study focuses on analysing the relationship between cost, volume, and profit to enhance decision-making and improve financial performance.

SCOPE OF THE STUDY

- Focuses on the future applicability of Cost-Volume-Profit (CVP) analysis in business decision-making.
- Explores how CVP can be used for long-term financial forecasting and strategic planning.
- Highlights the integration of CVP with digital tools, financial software, and AI-based forecasting systems.
- Aims to promote CVP as a tool for future sustainability, profitability, and risk management.
- Encourages the use of CVP not just for current budgeting, but for future-focused business growth strategies.

OBJECTIVES OF THE STUDY

- To examine the relationship between cost, volume, and profit.
- To determine the break-even point and margin of safety.
- To find the cost-volume-profit on the sales volume.

LIMITATION OF THE STUDY

- CVP analysis assumes fixed and variable costs remain constant, which may not reflect real-world changes over time.
- The model does not account for changes in market demand, competition, or consumer preferences that affect sales volume and pricing.
- CVP is more suitable for short-term planning and may not provide accurate insights for long-term strategic decisions.
- Non-quantifiable factors like customer satisfaction, employee performance, or brand reputation are not considered.
- Basic CVP analysis is ideal for single-product companies; applying it to multi- product scenarios requires complex adjustments.
- CVP does not adapt in real time to dynamic business environments or sudden economic changes.
- Assumes a linear relationship between cost, volume, and profit, which may not hold true at all production levels.

II. REVIEW OF LITERATURE

Dyatri Utami Arina Absari (2023) this research was a case study and was conducted at Ocean Garden Restaurant, Trunojoyo, Malang. The data were analysed by describing food cost, food percentage, contribution margin, and selling price. Based on the research findings, it was found that the cause of the high food cost was the ineffective food cost control process and food production control and the increase of raw material price that always fluctuated and did not followed by the increase of the selling price.

Santhoshkumar B (2021) 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 multiproduct 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 breakeven point and a target profit point than an existing approach. 12

John J. Agah (2020) this study sought to evaluate the effect of cost volume profit on the profitability of manufacturing firms in Enugu state. The specific objectives of the study were to examine the effect of cost volume profit analysis on profitability, cost of production and sales of manufacturing firms. The study adopted the ex-post facto research design and data were obtained from the annual reports and accounts of two manufacturing firms for the period 2003-2012. The Ordinary Least Squares Regression (OLS) were used to test the hypotheses stated. The result emanating from the hypotheses tested were mixed for sampled firms

(Innoson Industrial and Technical Company and Emenite Ltd. It was revealed that while contribution margin ratio had positive and significant effect on profitability it had positive and non- significant effect on cost of production and sales. The implication of these findings is that CVP application among manufacturing firms in Nigeria varies and this cloud be as a result of lack of awareness, low education levels and technical knowhow on the parts of directors. The study therefore concludes that as an analytical tool, it is useful as it enables the firm to determine the quantum of sales that will assist the firm not only to make profit but to break-even. The research therefore recommended that relevant directors should be sent on in-services training and short term courses on CVP application technique. Moreover, government should put a standard that would guide CVP application on manufacturing firms, so as to curtail price fluctuations among them in Nigeria business environments.

Arif Ahsan (2018) the main objective of the paper is to establish the relationship between cost and profitability. To achieve the main goal of the research, we approached concepts such as costs, sales, production volume, profit, decision making, what if analysis needed by the management to develop different scenarios on production volume, cost, sales price that lead to conclusive decisions in the near future. The research methodology corresponds to the research objective and is circumscribed to an archival research regarding literature review. The basis of the research is the small fast food business, in which we studied the impact of CVP analysis on their activity. There is also limited numbers of journal publications available in online that hinder to construct most informative literature review. So, in near future before conducting a research we can take permission from business authority that will add value to further reseaand we should collect financial information for determining the relationship among cost, volume and profitability.

III. RESEARCH METHOLOGY

Research Methodology refers to the systematic process used to plan, structure, and carry out a research study. It includes the methods, techniques, tools, and procedures employed to collect, analyse, and interpret data relevant to the research problem. The aim is to ensure that the findings are accurate, reliable, and valid.

Research Design:

Research Design is the overall framework or blueprint that guides how a research study is conducted. It outlines how data will be collected, analyzed, and interpreted in order to achieve the objectives of the study. A good research design ensures the validity, reliability, and objectivity of the research outcomes.

Types of Research Design:

- Exploratory Research Design
- Descriptive Research Design
- Analytical Research Design
- Experimental Research Design

DATA SOURCE & COLLECTION METHODS:

There are two types for collecting data

- Primary data
- Secondary data

TOOLS USED FOR ANLAYSIS OF DATA:

The data were analysed during the following financial tools. They are

- Contribution Margin Analysis
- Break-Even Point Analysis
- Cost Volume Profit Analysis

IV. DATA ANALYSIS AND INTERPRETATION

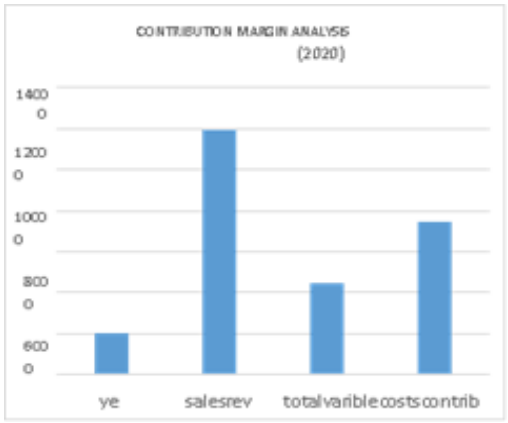
THE TABLE SHOWING CONTRIBUTION MARGIN ANALYSIS

(Rs. In Crore)

Year	Sales Revenue	Total Variable Costs	Contribution Margin
2020	11,906.74	4,429.12	7,477.62

(Source: Secondary Data)

THE CHART SHOWING CONTRIBUTION MARGIN ANALYSIS



INTERPRETATION

The sales revenue in 2020 was around ₹12,000, indicating strong performance. Total variable costs were approximately ₹4,300–₹4,500, showing effective cost control. The contribution margin stood at about ₹7,500, highlighting good profitability potential. Variable costs accounted for only around 36–38% of sales, reflecting efficiency. Overall, the company maintained healthy operations with a strong contribution margin.

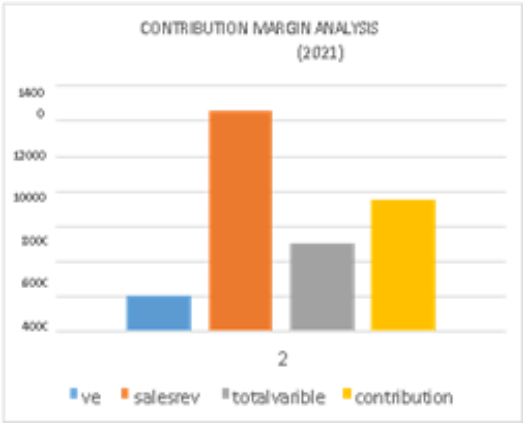
TABLE SHOWING CONTRIBUTION MARGIN ANALYSIS

(Rs. In Crore)

Year	Sales Revenue	Total Variable Costs	Contribution Margin
2021	12,570.93	5,008.74	7,562.19

(Source: Secondary Data)

CHART SHOWING CONTRIBUTION MARGIN ANALYSIS



(Source: Secondary Data)

INTERPRETATION:

The sales revenue in 2021 increased to around ₹12,500, showing growth from 2020.Total variable costs rose to about ₹5,000, indicating higher production or operating expenses. The contribution margin remained strong at approximately ₹7,500, sustaining profitability. Variable costs are about 40% of sales, still reflecting efficient cost management. Overall, the company achieved revenue growth while maintaining a healthy contribution margin.

BREAK-EVEN POINT ANALYSIS

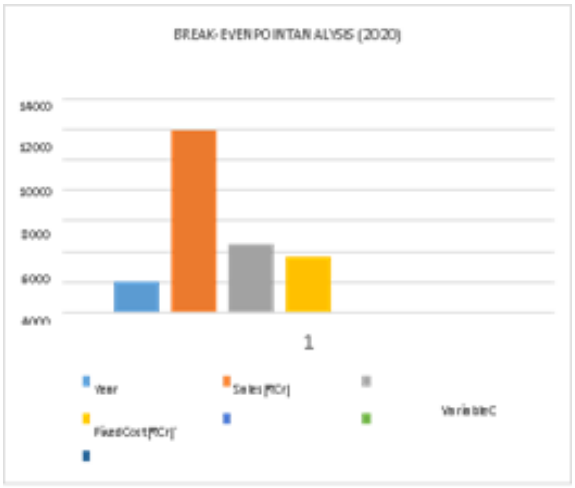
TABLE SHOWING BREAK-EVEN POINT ANALYSIS

(Rs. In Crore)

Year	Sales	Variable Cost	Fixed Cost	Selling Price/Unit	Variable Cost/Unit	BEP (Units)
2020	11,906.74	4,429.12	3,677.52	11.91	4.43	555.8 L

(Source: Secondary Data)

CHART SHOWING BREAK-EVEN POINT ANALYSIS



INTERPRETATION:

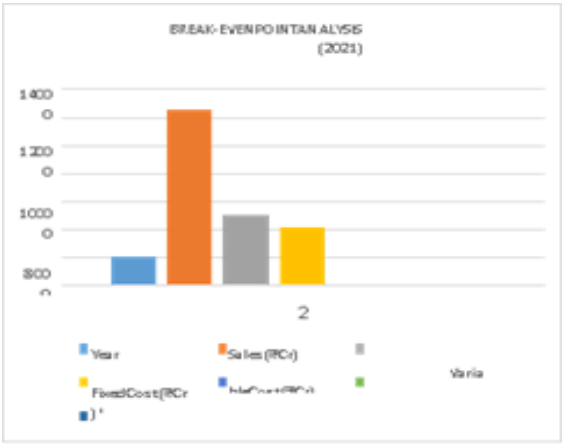
Sales in 2020 were around ₹12,000 Cr, indicating a strong revenue base. Variable costs stood at about ₹4,300 Cr, showing efficient cost management. Fixed costs were approximately₹3,500 Cr, requiring significant sales to cover. The company operated well above its break- even point, indicating profitability. Overall, 2020 reflects a financially stable position with a comfortable margin over the BEP.

TABLE SHOWING BREAK-EVEN POINT ANALYSIS

Year	Sales	Variable Cost	Fixed Cost	Selling Price/Unit	Variable Cost/Unit	BEP (Units)
2021	12,570.93	5,008.74	4,183.08	12.57	5.01	519.3 L

(Source: Secondary Data)

CHART SHOWING BREAK-EVEN POINT ANALYSIS



INTERPRETATION:

Sales in 2021 increased to around ₹12,500 Cr, indicating revenue growth. Variable costs rose slightly to about ₹5,000 Cr, showing higher production expenses. Fixed costs were approximately ₹4,000 Cr, remaining stable compared to 2020. The company stayed well above its break-even point, ensuring continued profitability. Overall, 2021 reflects strong financial performance with controlled costs and healthy margins.

V. FINDINGS, SUGGESTIONS & CONCLUSION

FINDINGS:

- Sales revenue increased consistently from ₹11,906.74 Cr in 2020 to ₹19,843.53 Cr in 2024, showing steady market expansion and strong brand performance.
- The contribution margin rose from ₹7,477.62 Cr in 2020 to ₹14,075.29 Cr in 2024, indicating effective pricing strategies and better control over variable costs.
- Variable costs remained between 30–40% of total sales, reflecting high operational efficiency and improved procurement and production management.
- The break-even point declined from 555.8 L units in 2020 to 430.9 L units in 2023, showing that the company could reach profitability faster due to better cost control and higher contribution margins.
- CVP profit rose sharply from ₹3,800.10 Cr in 2020 to ₹8,935.39 Cr in 2024. The peak profits in 2023–2024 reflect efficient resource utilization and strategic financial planning.
- Even with minor fluctuations in sales during 2024, profitability continued to rise— signifying that fixed and variable costs were effectively optimized.
- The company maintained low variable cost ratios and consistent fixed cost control, contributing to a higher margin of safety and reduced business risk.

SUGGESTIONS:

- Regularly track variable cost elements such as raw materials, labour, and logistics to prevent cost escalation and protect margins.
- Introduce new snack variants or health-oriented products to sustain growth and reduce dependency on a few key items.
- Implement ERP and AI-based forecasting tools for real-time cost monitoring, production efficiency analysis, and demand prediction.
- Align selling prices with market demand, raw material trends, and competitor moves to maintain profitability without losing market share.
- Continue investing in automation, process optimization, and energy-efficient technologies to further lower variable costs.
- Expand into Tier-II and Tier-III cities and improve logistics through regional warehousing to enhance sales volume and reduce transportation costs.
- Develop strategies to counter raw-material price fluctuations and supply-chain disruptions, ensuring business continuity.
- Provide regular training on CVP and financial decision-making to managers for better cost control and profitability analysis.

CONCLUSION:

From the study of Venkataramana Food Specialities Limited from 2020 to 2024 through Contribution Margin, Break-Even Point, and Cost-Volume-Profit (CVP) tools reveals a strong and consistent growth trajectory. The Contribution Margin Analysis shows an upward trend in profitability per unit, reflecting effective pricing strategies and well-managed variable costs. The Break-Even Point Analysis highlights the company's improved operational efficiency, with a consistent decrease in the number of units required to cover fixed costs. This indicates stronger cost control and reduced risk exposure. Meanwhile, the CVP Analysis

confirms that the company has significantly expanded its profitability over the five years, with total CVP profits nearly doubling by 2024. This showcases successful alignment between cost structures and revenue generation, further validating management's strategic decisions. Collectively, the analyses demonstrate that Venkataramana Food Specialities Limited has built a financially resilient business model with improved margin control, reduced cost burden, and increasing profitability. The company is well-positioned for future growth, supported by sound financial planning and strategic execution.

REFERENCES

[1] Agah, J. J. (2020). Effect of cost volume profit analysis on profitability of manufacturing firms in Enugu state. *International Journal of Business and Management.*

[2] Ahsan, A. (2018). Relationship between cost and profitability in small fast-food businesses. *Asian Journal of Management Research.*

[3] Enyi, P. E. (2019). Weighted contribution margin vs. reversed contribution margin ratio in multiproduct CVP. *Management Accounting Research.*

[4] Enkeleda, L. (2018). Impact of CVP analysis on profitability in manufacturing and service enterprises. *International Journal of Productivity and Performance Management.*

[5] Punniyamoorthy, R. (2017). Cost-Volume-Profit analysis as a strategic decision- making tool. *Journal of Applied Management Accounting Research.*

[6] Santoshkumar, B. (2021). Multi-product CVP analysis in managerial accounting.*Journal of Management Accounting Research.*

[7] Absari, D. U. A. (2023). Food cost control and CVP in the hospitality industry. *Global Journal of Management and Business Research.*

[8] Accounting, Organizations and Society (AOS) – Elsevier.

[9] The British Accounting Review – Elsevier.

[10] International Journal of Accounting and Financial Management Research (IJAFMR).

[11] Atkinson, A. A., Kaplan, R. S., Matsumura, E. M., & Young, S. M. (2022). *Management Accounting: Information for Decision-Making and Strategy Execution.* Pearson.

[12] Bhattacharyya, A. K. (2020). *Cost Accounting for Business Managers.* PHI Learning.

[13] Blocher, E. J., Stout, D. E., Juras, P. E., & Smith, S. (2019). *Cost Management: A Strategic Emphasis.* McGraw-Hill.

[14] Drury, C. (2021). *Management and Cost Accounting.* Cengage Learning.

[15] Garrison, R. H., Noreen, E. W., & Brewer, P. C. (2020). *Managerial Accounting.*
i. McGraw-Hill Education.

[16] Hansen, D. R., Mowen, M. M., & Guan, L. (2021). *Cost Management: Accounting and Control.* Cengage Learning.

[17] Hilton, R. W., & Platt, D. E. (2020). *Managerial Accounting: Creating Value in a Dynamic Business Environment.* McGraw-Hill.

[18] Horngren, C. T., Datar, S. M., & Rajan, M. V. (2021). *Cost Accounting: A Managerial Emphasis.* Pearson Education.

[19] Kaplan, R. S., & Atkinson, A. A. (2015). *Advanced Management Accounting.* Pearson.

[20] Lal, J. (2018). *Cost Accounting.* Tata McGraw-Hill..

[21] https://www.imanet.org

[22] https://www.cimaglobal.com

[23] https://corporatefinanceinstitute.com

[24] https://www.researchgate.net

[25] https://www.sciencedirect.com

[26] https://www.investopedia.com

[27] https://www.accountingtools.com

[28] https://hbr.org

[29] https://www.thebalancemoney.com