

## **Sustainable Profitability through Cost-Volume-Profit Analysis: Evidence from RM Seafood Restaurant**

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### ***ABSTRACT***

The restaurant industry operates in a dynamic and highly competitive environment where managers must carefully balance pricing strategies, cost structures, and profit targets. This study examines the application of Cost-Volume-Profit (CVP) analysis as a decision-making tool in RM Seafood Restaurant at Makassar city. CVP analysis was used to evaluate the break-even point, contribution margin, and margin of safety, providing a structured framework to understand the relationship between costs, sales volume, and profitability. This research uses a descriptive quantitative approach with a case study at RM Seafood. The data used consists of primary and secondary data. The results show that the restaurant achieved sales of Rp 3,456,459,091 with a contribution margin of Rp 864,278,351 and a contribution margin ratio of 25%. The break-even point (BEP) was calculated at 47,137 units or Rp 3,035,946,684 in sales, while actual sales exceeded this threshold, resulting in an operating profit of Rp 105,291,679. The margin of safety (MOS) of Rp 420,512,407, equivalent to 12%, indicates a sufficient buffer against potential sales decline. Furthermore, the degree of operating leverage (DOL) of 8.2 highlights the company's sensitivity to changes in sales volume. These findings demonstrate that CVP analysis provides valuable insights for cost control, pricing, and profit planning, thereby strengthening RM Seafood's competitive position in the culinary industry.

**Keywords** : Break-Even Point; Cost-Volume-Profit Analysis; Managerial Decision Making; Profitabilit

## I. INTRODUCTION

Over the past few decades, the business landscape—particularly within the restaurant sector—has experienced significant growth. The global restaurant industry has expanded remarkably reaching an estimated USD 3.1 trillion in value by 2021, while the broader food-service sector stood at USD 3.5 trillion in 2023. In Indonesia, the food-service market is valued at approximately USD 45 billion in 2024, with a robust growth forecast of 11.7% CAGR until 2033 (IMARC Group, 2024). The restaurant sector also plays a significant economic role, contributing about 41.8% of Indonesia's services GDP in 2022 (Research in Indonesia, 2022). This expansion is closely linked to increasingly consumptive lifestyles, rapid urbanization, and evolving dietary habits. The restaurant industry functions not only as a provider of food services but also as a vital economic driver through job creation, regional revenue generation, and contributions to the tourism sector. However, alongside this growth, the industry faces intensifying competition driven by continuous innovation in product offerings, service models, and aggressive pricing strategies. These conditions demand that firms develop strategic responses that are precise, effective, and adaptive to ensure sustainable growth and long-term survival.

In today's competitive environment, businesses seeking sustainable growth must be equipped to make rapid, accurate, and data-driven decisions. One widely adopted analytical tool to support managerial decision-making is Cost-Volume-Profit (CVP) analysis. This approach examines the interrelationships between cost structures,

sales volume, and profit, and explores how changes in any of these variables affect a company's financial performance. CVP analysis provides essential insights, such as the sales volume required to reach a break-even point—where the firm neither incurs a loss nor realizes a profit (Absary, 2023). Accordingly, CVP serves as a strategic tool that enables management to plan sales targets, determine optimal pricing strategies, and implement effective cost controls.

Conceptually, CVP analysis assesses how changes in variable costs, fixed costs, selling prices, and sales volume impact a firm's profitability (Horngren, Charles Foster, George & Datar, 2015). It serves as a foundational framework for understanding the connection between operational decisions and financial outcomes (Garrison, Noreen, & Brewer, 2018). CVP is particularly useful for identifying challenges related to sales planning and supporting firms in resolving such issues (Siregar, Suropto, Hapsoro, Lo & Biyanto, 2013). From a practical standpoint, CVP analysis can be viewed as a “roadmap” that guides management in determining the break-even point and designing profitability-oriented business strategies.

The importance of CVP analysis lies in its ability to provide clear, quantitative information to inform decision-making processes. To estimate expected profit outcomes, management must engage in careful planning, control activities, and data-supported decision-making—processes in which CVP analysis plays a central role (Iswara, Setyabudi, Setiadevi 2023). Businesses can utilize CVP to evaluate the feasibility of sales targets, calculate the

contribution margin of each product, and assess the available margin of safety in the event of declining sales. For restaurant businesses such as RM Seafood, CVP analysis is instrumental in assessing the effectiveness of menu pricing strategies, operational cost efficiency, and the minimum required sales volume to avoid financial losses.

RM Seafood is a local seafood restaurant located in Makassar, a city widely recognized as the culinary capital of Eastern Indonesia. Makassar has earned a strong reputation as a gastronomic destination, attracting both domestic and international tourists with its diverse selection of seafood dishes, which serve as the city's culinary hallmark.

RM Seafood as the object of this study is based on its characteristics as a medium-scale restaurant operating in a highly competitive culinary market. As a business that relies heavily on both fixed and variable costs, RM Seafood represents an ideal case for the application of Cost-Volume-Profit (CVP) analysis, which emphasizes the relationship between cost structures, sales volume, and profitability. The relevance of CVP for RM Seafood lies in its ability to provide quantitative insights into critical financial indicators, such as the break-even point, contribution margin, margin of safety, and degree of operating leverage. These measures enable management to establish realistic sales targets, determine appropriate pricing strategies

In practice, CVP analysis typically involves several key metrics: break-even point (BEP), contribution margin (CM),

margin of safety (MoS), and degree of operating leverage (DoL). Together, these indicators offer a comprehensive overview of a firm's financial standing and help anticipate potential risks arising from market fluctuations. The research problem is how CVP analysis can be applied to evaluate and improve RM Seafood's financial performance. This study aims to apply CVP analysis to measure contribution margin, break-even point, margin of safety, and degree of operating leverage. The objective is to assess how these indicators support managerial decisions in pricing, cost control, and profit planning.

## II. RESEARCH METHOD

This study adopts a quantitative descriptive approach through a case study of RM Seafood. The selected research design aims to develop a comprehensive understanding of the relationship between cost, sales volume, and pricing with the company's financial performance. A quantitative descriptive approach seeks to measure and describe phenomena using numerical data that can be systematically analyzed (Creswell, 2014). The population of this study includes all sales transactions and operational costs of RM Seafood. Due to practical limitations, the sample over the past six months consists of monthly financial statements, along with data on fixed costs, variable costs, sales volume, and unit prices of the main menu items that contribute most significantly to revenue. The sampling method used is purposive sampling, which involves selecting data based on specific criteria aligned with the research objectives (Sekaran & Bougie, 2016).

The study utilizes both primary and secondary data sources. Primary data were collected through interviews with RM Seafood's management, particularly within the finance and operations departments, to gain insights into cost structures and pricing policies. Secondary data were obtained from internal financial reports, sales records, and other supporting operational documents. The combination of primary and secondary data enhances the comprehensiveness of the analysis by providing a multifaceted view of the phenomena under investigation (Sugiyono, 2018). Data analysis was conducted using the Cost-Volume-Profit (CVP) analysis method, which includes the calculation of break-even point (BEP), margin of safety (MOS), contribution margin, and degree of operating leverage (DOL). This method enables the company to assess how changes in cost structures, pricing, and sales volume influence overall profitability. CVP analysis is a vital tool for short-term decision-making, as it highlights the sensitivity of profit outcomes to changes in key variables ((Hansen & Mowen, 2015).

### III.RESULTS AND DISCUSSION

The primary source of revenue for RM Seafood is derived from the sale of seafood meal packages, which typically include a combination of fish, rice, vegetables, and beverages. The restaurant incurs various operational expenses, including raw material costs, employee salaries, electricity expenses, communication costs, general administrative costs, and selling expenses. During the period from January to July 2025, RM Seafood recorded total sales revenue of IDR 3,456,459,091,

with a total of 53,677 meal packages sold within that timeframe.

Table 1. CVP Calculation Data (in IDR)

	Total	Per Unit
Sales Revenue	3,456,459,091	64,394
Variable Costs	2,592,180,740	48,292
Contribution Margin	864,278,351	16,101
Fixed Costs	758,986,671	
Profit Before Tax	105,291,679	

Source: data processed (2025)

#### 1. Contribution Margin (CM)

##### a. Contribution Margin (CM)

Contribution Margin (CM) is the difference between sales and variable costs. Theoretically, the contribution margin reflects the amount available to cover fixed costs and generate profit after all variable costs are covered. The contribution margin is an important indicator in CVP analysis, as it illustrates the company's ability to generate profit from each unit of sales revenue (Garrison, Noreen, & Brewer, 2018).

$$CM = \text{Sales Revenue} - \text{Variable Cost}$$

$$CM = \text{IDR } 3,456,459,091 - \text{IDR } 2,592,180,740$$

$$CM = \text{IDR } 864,278,351$$

Based on the calculation, RM Seafood has a contribution margin of Rp864,278,351. This figure indicates that after covering variable costs of Rp2,592,180,740, the company still has Rp864 million available to cover fixed costs and generate net income. In other words, this contribution margin represents a crucial financial buffer in supporting business continuity.

##### b. Contribution Margin Ratio (CMR)

The Contribution Margin Ratio is the proportion of contribution margin to total sales. This ratio indicates the percentage of each sales unit that contributes to covering fixed costs and profit. The higher the ratio, the more efficient sales are in generating profit. CMR also has a close relationship with a company's cost structure, as this ratio reflects how much of the sales revenue remains after covering variable costs to contribute toward fixed costs and generate profit.

$$\begin{aligned}\text{CMR} &= (\text{Total CM} \div \text{Total Sales}) \times 100\% \\ \text{CMR} &= (\text{Rp}864,278,351 \div \text{Rp}3,456,459,091) \times 100\% \\ \text{CMR} &= 25\%\end{aligned}$$

The resulting contribution margin ratio of 25% indicates that each Rp1 of sales generates Rp0.25 to cover fixed costs and contribute to profit. This ratio falls into the moderate category, reflecting a reasonable level of efficiency in managing variable costs, yet also highlighting the firm's sensitivity to sales fluctuations. A moderate CMR, ranging from around 20% to 39%, means that the company is still able to cover its fixed costs and generate profit, but it is more sensitive to changes in sales volume ((Garrison, Noreen, & Brewer, 2018)). Consequently, management must emphasize maintaining sales volume and implementing cost-control strategies to ensure sustainable profitability.

Given this condition, RM Seafood is in a relatively healthy position in terms of cost structure. However, to further optimize profitability, management may consider strategies to increase sales and improve variable cost efficiency, such as menu

innovation, better raw material waste control, or more competitive pricing strategies.

## 2. Break-Even Point (BEP)

One of the key aspects of Cost-Volume-Profit (CVP) analysis is the Break-Even Point (BEP), which represents the sales level at which total revenue equals total costs, resulting in neither profit nor loss. The BEP is a critical indicator for management, as it shows the minimum sales level required for the company to cover all operating costs. When sales exceed the break-even point, the company earns a profit, whereas sales below this point lead to a loss. BEP can be analyzed using the Operating Income Approach and the Contribution Margin Approach.

### a. Operating Income Approach

This approach emphasizes the relationship between fixed costs, selling price, and variable cost per unit. By calculating the difference between the selling price per unit and the variable cost per unit (contribution margin per unit), the company can determine the number of units that must be sold to cover fixed costs.

$$\begin{aligned}\text{Operation Income} &= [(\text{Selling Price per Unit} \times \text{Units Sold}) - (\text{Variable Cost per Unit} \times \text{Units Sold})] - \text{Total Fixed Costs} \\ 0 &= [(64.394 \times \text{unit}) - (48.292 \times \text{unit})] - \text{Rp}758,986,671 \\ 0 &= (16,101 \times \text{unit}) - \text{Rp}758,986,671 \\ \text{Rp}758,986,671 &= 16,101 \times \text{unit} \\ x &= 47,137\end{aligned}$$

Thus, RM Seafood must sell average at least 47,137 portions/menus over six months (or 7,856 per month) to cover all fixed and variable costs. If sales fall below this threshold, the company will incur losses; conversely, if sales exceed it, the company will begin generating profits. With actual sales of 53,677 units, RM Seafood has surpassed its BEP and is operating in a profitable position.

#### b. Contribution Margin Approach

This approach focuses on the Contribution Margin Ratio (CMR), which is the proportion of total contribution margin to total sales. Using this method, BEP is calculated in terms of sales revenue rather than units.

$$\text{BEP} = \text{Total Fixed Costs} \div \text{Contribution Margin}$$

$$\text{BEP} = \text{Rp}758,986,671 \div 25\%$$

$$\text{BEP} = \text{Rp}3,035,946,684$$

Therefore, RM Seafood must achieve a minimum sales revenue of approximately Rp3.04 billion to cover all fixed and variable costs. Based on the data, actual sales amounted to Rp3.456 billion, meaning RM Seafood has exceeded the break-even point by roughly Rp420 million.

### 3. Margin of Safety (MoS)

#### a. Margin of Safety (MoS)

Margin of safety is the difference between actual sales and sales at the break-even point (BEP). This concept indicates how much sales can decline before the company reaches a loss condition. MOS is an important indicator for measuring business risk, as the larger the MOS value, the more secure the company's financial position is against potential sales declines (Garrison, Noreen, & Brewer, 2018).

$$\text{MoS} = \text{Actual Sales} - \text{Break Even Sales}$$

$$\text{MoS} = \text{Rp}3,456,459,091 - \text{Rp}3,035,946,684$$

$$\text{MoS} = \text{Rp}420,512,407$$

The MOS of Rp420.5 million indicates that RM Seafood has a "safety cushion" of Rp420.5 million in sales before reaching the break-even point. In other words, if sales decline by up to Rp420.5 million, the

company would still break even rather than incur losses.

#### b. MOS Ratio

The Margin of Safety Ratio (MOS Ratio) is the proportion of MOS to actual sales. This metric shows the maximum percentage decline in sales the company can tolerate before experiencing losses.

$$\text{MoS Ratio} = (\text{MOS} \div \text{Total Sales}) \times 100\%$$

$$\text{MoS Ratio} = (\text{Rp}420,512,407 \div \text{Rp}3,456,459,091) \times 100\%$$

$$\text{MoS Ratio} = 12\%$$

The MOS Ratio of 12% indicates that the company has a buffer of 12% of its total sales against the risk of demand decline. This means that if sales fall by more than 12%, the company will begin to incur losses.

### 4. Degree of Operation Leverage

Degree of Operating Leverage (DOL) is a measure that indicates the extent to which changes in sales can affect a company's operating income. DOL is used to assess the sensitivity of profits to changes in sales volume. The higher the DOL value, the greater the company's risk as well as its profit potential. DOL reflects the leverage effect of fixed costs on profits (Garrison, Noreen, & Brewer, 2018). Companies with high fixed costs tend to have a higher DOL, meaning that even small changes in sales can result in relatively large changes in operating income.

$$\text{DOL} = \text{Contribution Margin} \div \text{Operating Income}$$

$$\text{DOL} = \text{Rp}864,278,351 \div \text{Rp}105,291,679$$

$$\text{DOL} = 8.2$$

A value of 8.2 means that every 1% change in sales will result in an 8.2% change in operating income. This indicates that RM Seafood's profit is highly sensitive to sales



fluctuations, as the company has a relatively high proportion of fixed costs compared to its net operating income.

## 5. Profit planning analysis

Profit planning is the process of determining the target profit a company aims to achieve through the calculation of the relationship between costs, sales volume, and selling price.

$$\begin{aligned}
 \text{Operating Income} &= [(\text{Selling Price per Unit} \times \text{Units Sold}) - (\text{Variable Cost per Unit} \times \text{Units Sold})] - \text{Total Fixed Costs} \\
 \text{Target Profit} \times (\text{Selling Price per Unit} \times \text{Units Sold}) &= [(64,394 \times \text{units}) - (48,292 \times \text{units})] - \text{Rp}758,986,671 \\
 0.20 \times (64,394 \times \text{units}) &= (16,101 \times \text{units}) - \text{Rp}758,986,671 \\
 12,878 \times \text{units} &= (16,101 \times \text{units}) - \text{Rp}758,986,671 \\
 3,222 \times \text{units} &= -\text{Rp}758,986,671 \\
 \text{Unit} &= 235,563
 \end{aligned}$$

If the target profit is set at 20%, the company must sell 235,563 units over six months, or approximately 39,260 units per month. This requirement highlights the importance of aligning sales strategies, cost control, and pricing policies to ensure that the profit objective can be realistically achieved under existing market conditions.

RM Seafood before the application of CVP analysis relied on historical financial performance and managerial intuition in making pricing and cost-related decisions. Such an approach, while practical in the short term, limited the company's ability to accurately evaluate the interplay between sales volume, cost structure, and profitability. The absence of systematic evaluation tools also meant that management lacked clear benchmarks for determining the break-even point, assessing financial risk, or planning for sustainable growth in a competitive restaurant industry.

After implementing CVP analysis, RM Seafood gained a structured framework to understand its financial dynamics more

comprehensively. The results revealed a contribution margin of 25%, a break-even point of 47,137 units (or Rp3.03 billion in sales), a margin of safety of Rp420.5 million (12%), and a degree of operating leverage of 8.2. Collectively, these indicators provide RM Seafood with actionable insights for optimizing pricing strategies, controlling variable costs, and setting realistic sales targets. From an academic perspective, the findings demonstrate the practical utility of CVP as a decision-making tool, while for RM Seafood, the analysis strengthens managerial capacity to anticipate risks, improve operational efficiency, and pursue sustainable profitability.

## IV. CONCLUSION

The Cost-Volume-Profit (CVP) analysis conducted on RM Seafood shows that the company successfully generated a contribution margin of Rp864,278,351 with a ratio of 25%, indicating efficiency in managing variable costs. The calculation of the Break-Even Point (BEP) of 47,137 units or Rp3,035,946,684 illustrates the minimum sales level required to avoid losses, and the actual condition shows that RM Seafood has surpassed this threshold. Furthermore, the Margin of Safety (MOS) of Rp420,512,407 or 12% provides a sales buffer against fluctuations, although it is relatively moderate. Meanwhile, the Degree of Operating Leverage (DOL) of 8.2 reflects the high sensitivity of operating profit to changes in sales volume. Overall, CVP proves to be an effective tool in understanding the relationship between costs, sales volume, and profit, thereby supporting managerial decision-making.

The results indicate that RM Seafood has exceeded its break-even point, suggesting that the business is in a healthy condition. Information derived from contribution margin, BEP, MOS, and DOL can serve as a basis for management in determining pricing strategies, cost control, and realistic sales targets. Thus, CVP analysis assists the company in making more measured decisions to enhance financial performance. However, this study is limited to historical data over a single period (six months) and one research object. This study is limited by using only CVP analysis as the primary tool. While CVP provides essential insights into the relationship between cost, sales volume, and profit, its simplifying assumptions may not fully capture the dynamic realities of the restaurant industry. Thus, the findings serve as useful benchmarks but should be interpreted with caution in the context of market fluctuations.

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