

Cost-Volume-Profit Analysis as a Tool for Financial Resilience Amid Macroeconomic Volatility: Empirical Evidence from PT Wilmar Cahaya Indonesia Tbk

Moh Adistian ¹ Neng Dinda Septia ² Muhammad Fauzan Akbar Rafsanjani ³ Neysha Putri Vaquitasari ⁴ Asri Sundari ^{5*}

1, 2, 3, 4, 5* Universitas Kebangsaan Republik Indonesia, Bandung, Indonesia

Email: asrisundari@fe.ukri.ac.id

ARTICLE HISTORY

Submitted : June 20, 2026
Reviewed : July 02, 2026
 July 09, 2026
Revised : July 16, 2026
Accepted : July 18, 2026
Published : August 06, 2026

Conflict of Interest Statement:

The author(s) declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

ABSTRACT

Purpose: This study aims to analyze the Break-Even Point (BEP) and Margin of Safety (MOS) as Cost-Volume-Profit (CVP) indicators for evaluating sales safety and profit planning at PT Wilmar Cahaya Indonesia Tbk (CEKA) during 2022–2024.

Research Method: A descriptive quantitative case study was employed using audited annual financial statements as secondary data obtained from the Indonesia Stock Exchange. Cost accounts were classified into fixed and variable costs using the Account Analysis Method based on the Notes to Financial Statements (CALK). Data were analyzed using Cost-Volume-Profit (CVP) through the calculation of the Contribution Margin Ratio, Break-Even Point, and Margin of Safety.

Results and Discussion: Net sales increased from IDR 6.14 trillion in 2022 to IDR 8.00 trillion in 2024. The Margin of Safety Ratio rose from 60.37% to 70.19%, while the Break-Even Point remained relatively stable, indicating an increasing sales safety margin. Inflation, exchange rates, and crude palm oil (CPO) prices were used only as contextual information in interpreting the findings.

Implications: The findings support managerial decision-making in sales safety evaluation, cost control, and profit planning through periodic CVP analysis.

Originality: This study positions Margin of Safety as a sales safety indicator within the CVP framework and interprets macroeconomic conditions as contextual information rather than causal determinants.

Keywords: break-even point; cost-volume-profit; margin of safety; profit planning; sales safety.

1. Introduction

Economic uncertainty is one of the main challenges companies face in maintaining business continuity and achieving profit targets. During the 2022–2024 period, both the national and global economies experienced significant volatility due to post-pandemic inflationary pressures, geopolitical conflicts disrupting supply chains, and tight monetary policies that affected interest rates, exchange rates, and the prices of various strategic commodities (Syafitri *et al.*, 2025). These conditions have impacted all economic actors, including the manufacturing sector, which faces rising raw material costs, commodity price fluctuations, and shifts in market demand. These changes in the business environment require



companies to have a profit planning system capable of providing information on the level of sales safety in the face of economic uncertainty.

In Cost-Volume-Profit (CVP) analysis, one of the most widely used indicators to support profit planning is the Margin of Safety (MOS), which is the difference between actual sales and sales at the break-even point (BEP) (Rohmah *et al.*, 2025). The MOS value indicates the extent to which a decline in sales can still be tolerated before the company reaches the break-even point. Therefore, the MOS provides information on the level of sales safety that management can use to evaluate operational risks and formulate profit planning strategies (Wantira *et al.*, 2026). In this study, MOS is positioned as a sales safety indicator within the Cost-Volume-Profit (CVP) analysis framework, rather than as the sole measure of a company's financial resilience. Consequently, the results are interpreted descriptively in accordance with the characteristics of the research method employed.

Various previous studies have shown that Cost-Volume-Profit analysis is an effective tool for supporting profit planning across various types of organizations. Ditoananto & Purwanti (2023) demonstrated that applying CVP analysis helped OnoTaki maintain its operations above the break-even point during the COVID-19 pandemic through an adequate Margin of Safety, despite unstable economic conditions. These findings indicate that information regarding the contribution margin, break-even point, and margin of safety can serve as a basis for operational decision-making in business situations marked by uncertainty. Consistent results were presented by Haeruddin *et al.*, (2023), who found that CVP analysis enabled the Batu Merah SME to achieve a Margin of Safety of 73%, allowing the company to plan its profit targets more optimally during the period of economic disruption caused by the pandemic. Furthermore, Hesti *et al.*, (2024), along with several other studies, reported that CVP analysis can provide information on contribution margin, break-even point, and margin of safety as a basis for formulating corporate profit strategies. Rafi *et al.*, (2025) also emphasize that the effectiveness of CVP analysis is influenced by the accuracy of cost estimates, the precision of sales projections, and the flexibility of the cost structure, ensuring that this method remains relevant in a dynamic business environment.

Nevertheless, these studies generally still focus on the CVP function as a tool for a company's internal profit planning. Research linking CVP analysis results to changes in macroeconomic conditions—such as inflation, exchange rates, and commodity price fluctuations—remains relatively limited. Research on economic volatility conducted by Winata (2025) and several other studies has primarily addressed risk management strategies at the industry level rather than evaluating how Cost-Volume-Profit indicators reflect a company's sales safety margin during periods of economic uncertainty. Thus, there remains an empirical gap regarding how the results of Break-Even Point and Margin of Safety analyses can be interpreted in the context of changes in the macroeconomic environment without assuming a causal relationship between the two.

In addition to this empirical gap, there is still room for conceptual development. Some previous studies tend to link the Margin of Safety directly to a company's financial resilience. However, from a Cost-Volume-Profit perspective, the Margin of Safety (MOS) essentially describes the level of sales safety relative to the break-even point. Therefore, this study does not position MOS as the sole representation of financial resilience, but rather as one of the operational indicators that can be used to describe a company's ability to maintain a sales safety margin amid changing economic conditions. This approach is expected to provide a more proportionate interpretation in line with the characteristics of descriptive analysis.



PT Wilmar Cahaya Indonesia Tbk was selected as the research subject because changes in Crude Palm Oil (CPO) prices, exchange rates, and global trade dynamics influence its operational activities. As a manufacturing company operating in the vegetable oil processing industry and listed on the Indonesia Stock Exchange under the ticker symbol CEKA, the company faces uncertainties regarding production costs and market demand that could potentially affect its cost structure and sales levels. These characteristics make PT Wilmar Cahaya Indonesia Tbk a relevant context for evaluating changes in the Break-Even Point and Margin of Safety during the 2022–2024 period and interpreting the results while considering developments in macroeconomic indicators.

Based on this description, this study aims to analyze the Break-Even Point and Margin of Safety of PT Wilmar Cahaya Indonesia Tbk during the 2022–2024 period and to interpret changes in these two indicators in the context of developments in inflation, exchange rates, and crude palm oil prices. The research question posed is: How are changes in macroeconomic conditions during the observation period reflected in the results of the company's Cost-Volume-Profit analysis? The novelty of this research lies in the integration of Cost-Volume-Profit analysis with the macroeconomic context as the basis for interpreting the results, thereby expanding the use of CVP from merely a profit planning tool to a descriptive analysis of the company's sales safety margin—without claiming a cause-and-effect relationship between macroeconomic variables and Cost-Volume-Profit indicators.

The remainder of this paper is organized as follows. Section 2 provides a literature review and hypothesis development. Section 3 presents the research method and design. Section 4 provides the results and discussion. Section 5 presents Concluding Remarks and Recommendations.

2. Literature Review and Hypothesis Development

2.1 Margin of Safety

The Margin of Safety (MOS) is a key component of Cost-Volume-Profit (CVP) analysis used to measure a company's sales safety margin against potential revenue declines before the company reaches its break-even point (BEP) (Yanto, 2020). The Margin of Safety represents the difference between actual or planned sales and sales at the break-even point (Husna *et al.*, 2024). The larger the Margin of Safety value, the greater the allowable decline in sales that can still be tolerated without causing the company to reach the break-even point or incur a loss. Therefore, MOS is widely used as a sales safety indicator in the profit planning process and operational risk assessment through CVP analysis.

From a financial management perspective, the Margin of Safety provides information regarding the size of the company's sales safety buffer in the face of changes in sales volume (Bhimani & Christianto, 2023). This information helps management evaluate profit sensitivity to changes in sales, set sales targets, and plan operational strategies and cost controls. According to Ramadhan & Setiawan (2024), information regarding the Margin of Safety is highly useful in determining a company's production policies, cost efficiency, and marketing strategies. Thus, the MOS serves as an operational indicator that supports the managerial decision-making process by providing information on the level of sales safety. However, conceptually, the MOS does not comprehensively measure a company's financial condition because it only represents the relationship between sales, costs, and profit within the Cost-Volume-Profit (CVP) analysis framework.

Empirical findings also indicate that companies with higher Margin of Safety values generally have greater room for a decline in sales before reaching the break-even point (Dailami *et al.*, 2024).



However, these results should be understood as an indication of the level of sales safety within the Cost-Volume-Profit analysis framework, not as direct evidence that a company possesses higher financial resilience. Assessing financial resilience requires more comprehensive indicators, such as liquidity, profitability, capital structure, cash flow, and a company's ability to adapt to changes in the business environment.

2.2 Break-Even Point and Profit Planning

The Break-Even Point (BEP) is the point at which a company's total revenue equals its total costs, meaning the company neither makes a profit nor incurs a loss (Kharismawati *et al.*, 2021). Within the Cost-Volume-Profit (CVP) framework, the BEP is used to determine the minimum sales level required to cover all fixed and variable costs. Therefore, the BEP is a crucial tool in profit planning because it provides information on the minimum operational threshold that must be met before a company generates a profit. This information helps management set sales targets, evaluate cost structures, and analyze the impact of changes in selling prices, production costs, and sales volume on planned profits (Das *et al.*, 2025; Novia *et al.*, 2025; Santoso *et al.*, 2022). Thus, BEP analysis serves not only as a tool for measuring the break-even point but also as a basis for managerial decision-making in formulating more effective operational strategies and profit planning (Rachman *et al.*, 2024; Yuningsih, 2023).

Various empirical studies indicate that the regular application of BEP analysis can improve the quality of profit planning by providing insight into the relationship between costs, sales volume, and expected profit levels. Medyawati & Jamiah (2025) emphasize that BEP, when combined with the Margin of Safety (MOS), provides more comprehensive information regarding a company's minimum sales threshold and sales safety margin. Similar findings were reported by Safitri *et al.*, (2024) and Husna *et al.*, (2024), who demonstrated that integrating BEP and MOS analysis supports the development of sales strategies, cost efficiency, and the achievement of profit targets in a more measurable manner. From a CVP perspective, BEP and MOS have complementary functions: BEP indicates the minimum sales threshold required for a company to avoid losses, while MOS indicates the difference between actual sales and the break-even point as an indicator of sales safety. Therefore, these two indicators provide relevant information to support the evaluation of profit planning and managerial decision-making without directly representing the company's overall financial resilience.

2.3 Economic Uncertainty and Its Impact on Corporate Performance

Economic uncertainty is a condition in which changes in economic policy, inflation, interest rates, exchange rates, or commodity prices make the business environment more difficult to predict, thereby increasing the risks involved in corporate decision-making. For manufacturing companies, these conditions can affect production costs, raw material prices, market demand, and the company's ability to achieve sales and profit targets (Nurfia & Rismawandi, 2025). Research by Ahsan *et al.*, (2022) shows that economic policy uncertainty affects a company's financial growth, although the magnitude of the impact depends on the business strategies implemented. These findings are supported by Apriansyah *et al.*, (2025), who found that economic policy uncertainty affects the performance of manufacturing companies in the ASEAN region through changes in market conditions and the operational environment. Therefore, companies require a planning and control system capable of providing information regarding minimum sales thresholds, cost structures, and sales safety margins as a basis for decision-making in the face of changing economic conditions.



In addition to affecting operational performance, economic uncertainty also impacts managerial behavior, investment decisions, and the quality of a company's financial reporting. Januarsi & Taufik (2025) demonstrate that increasing economic policy uncertainty can influence management decisions regarding the preparation of financial statements, while Arianpoor & Eslami Khargh (2023) explain that such conditions also affect investment decisions, innovation, and corporate performance prospects through changes in business expectations. Research by Apriansyah *et al.*, (2025) also indicates that the quality of corporate governance plays a role in moderating the impact of economic uncertainty on corporate performance. In the context of this study, economic uncertainty is positioned as an external context underpinning changes in the business environment during the 2022–2024 period. Therefore, trends in inflation, exchange rates, and Crude Palm Oil (CPO) prices are used as supporting information to interpret the results of the Cost-Volume-Profit (CVP) analysis—specifically the Break-Even Point (BEP) and Margin of Safety (MOS)—without assuming a causal relationship between macroeconomic indicators and these analytical results.

2.4 The Margin of Safety as a Tool for Dealing with Economic Uncertainty

The Margin of Safety (MOS) is an indicator in Cost-Volume-Profit (CVP) analysis that shows the difference between actual sales and the break-even point (BEP), thereby providing information on the level of safety in a company's sales before it incurs a loss (Najibah & Putri, 2025). In the context of economic uncertainty, changes in inflation, exchange rates, interest rates, and commodity prices can affect production costs and market demand, making information on the Margin of Safety relevant for evaluating a company's operations. However, the Margin of Safety (MOS) does not directly measure the impact of economic uncertainty; rather, it indicates the extent to which a decline in sales can still be tolerated based on the relationship between costs, sales volume, and profit within the Cost-Volume-Profit (CVP) analysis framework (Rafi *et al.*, 2025).

Companies with a relatively higher Margin of Safety generally have a greater margin for sales decline before reaching the break-even point, so the operational risk resulting from a decline in sales volume is relatively lower (Medyawati & Jamiah, 2025). Conversely, a low Margin of Safety indicates that a company has a narrower sales safety margin, meaning that even small changes in sales volume can more quickly push the company toward the break-even point (Purwanti *et al.*, 2025). Therefore, information regarding the Margin of Safety can be utilized by management as one of the bases for evaluating sales targets, cost structures, and profit planning. Nevertheless, the Margin of Safety cannot be regarded as the sole measure of financial resilience, as a company's financial resilience is also influenced by other factors, such as liquidity, profitability, capital structure, cash flow, and the ability to adapt to changes in the business environment (Muchsidin *et al.*, 2025).

In this study, PT Wilmar Cahaya Indonesia Tbk was selected as the research subject because fluctuations in Crude Palm Oil (CPO) prices, exchange rates, and the dynamics of domestic and international market demand influence its operational activities. Therefore, an analysis of the Margin of Safety over the 2022–2024 period was used to evaluate changes in the company's sales safety level in the context of developments in macroeconomic indicators. Consequently, the results of the analysis are interpreted as an illustration of the company's sales safety position during the observation period, rather than as direct evidence that the company can absorb economic shocks or has a specific level of financial resilience.

3. Research Method

This study employs a descriptive quantitative method using a case study approach at PT Wilmar Cahaya Indonesia Tbk (stock code: CEKA). This research design was chosen because it aims to describe changes in cost structure, sales volume, and Cost-Volume-Profit (CVP) indicators based on the company's historical data without testing causal relationships between variables. Therefore, the research results are interpreted as a snapshot of the company's operational conditions during the observation period, not as proof of the influence of macroeconomic variables on the company's performance. The data used consists of secondary data in the form of audited annual financial statements for the 2022–2024 period, obtained through documentation techniques from the annual reports and Notes to the Financial Statements (CALK) published on the official websites of the Indonesia Stock Exchange (IDX) and PT Wilmar Cahaya Indonesia Tbk.

The data collection process involved identifying all information related to net sales, cost of goods sold, selling expenses, general and administrative expenses, and other expense accounts used in Cost-Volume-Profit analysis. Next, each expense account was classified based on its cost behavior using the Account Analysis Method, with reference to the information listed in the Notes to the Financial Statements (CALK). The classification was divided into three categories: variable costs, fixed costs, and mixed costs. Variable costs are costs that change with changes in production or sales volume, such as raw materials, packaging materials, and direct labor. Fixed costs remain relatively constant within a certain capacity range, such as depreciation of plant assets, plant insurance, and fixed administrative salaries. Meanwhile, mixed costs are costs that contain both fixed and variable components, such as utility costs or certain operating expenses. If an account exhibits characteristics of mixed costs, classification is based on the information available in CALK and the most dominant cost behavior characteristic. This approach was chosen because the study uses published secondary data; thus, cost separation is performed conceptually using the Account Analysis Method and does not employ statistical estimation techniques, such as the High-Low Method or cost regression analysis.

To enhance the transparency and replicability of the study, the cost classification process was conducted as presented in Table 1.

Table 1. Guidelines for Cost Classification Using the Account Analysis Method

Expense Account	Classification	Basis for Classification
Raw material costs	Variable costs	Varies in proportion to production volume
Packaging material costs	Variable costs	Based on the number of units produced
Direct labor	Variable costs	Directly related to production activities
Depreciation of plant assets	Fixed costs	Not affected by short-term production volume
Factory Insurance	Fixed costs	Periodic and contractual in nature
Fixed administrative salary	Fixed costs	Invariant with respect to changes in production volume
Certain utility costs (if they include both fixed and variable components)	Mixed costs	Includes both fixed costs and usage-based costs

After the cost classification process was completed, an analysis was conducted using the Cost-Volume-Profit (CVP) approach through several stages, namely calculating the Contribution Margin (CM), Contribution Margin Ratio (CMR), Break-Even Point (BEP), Margin of Safety (MOS), and Margin of Safety

Ratio (MOSR). These five indicators are used to evaluate the relationship between sales, costs, and profit and to illustrate the company's sales safety margin during the study period. Furthermore, the analysis results are interpreted by considering trends in inflation, exchange rates, and Crude Palm Oil (CPO) prices as the macroeconomic context, without assuming a cause-and-effect relationship between macroeconomic indicators and the Cost-Volume-Profit analysis results.

The calculation formula used in this study is as follows:

- *Contribution Margin*

$$\text{Contribution Margin} = \text{Net Sales} - \text{Variable Costs}$$

- *Contribution Margin Ratio (CMR)*

$$\text{CMR} = \frac{\text{Contribution Margin}}{\text{Net Sales}} \times 100\%$$

- *Break-Even Point (BEP)*

$$\text{BEP (Rp)} = \frac{\text{Total Fixed Costs}}{\text{CMR}}$$

- *Margin of Safety (MOS)*

$$\text{MOS (Rp)} = \text{Actual Sales} - \text{Break-Even Point Sales}$$

- *Margin of Safety Ratio (MOSR)*

$$\text{Rasio MOS (\%)} = \frac{\text{MOS Absolut}}{\text{Actual Sales}} \times 100$$

The results of each indicator were analyzed descriptively to evaluate changes in the operational conditions of PT Wilmar Cahaya Indonesia Tbk during the 2022–2024 period. The interpretation focused on changes in sales security levels, cost structure, and profit planning based on the Cost-Volume-Profit framework, ensuring that the research conclusions remained within the scope of descriptive analysis in accordance with the research design used.

4. Results and Discussion

4.1 Analysis Results

Results of the Cost-Volume-Profit Analysis (CVP)

This study analyzes the operational conditions of PT Wilmar Cahaya Indonesia Tbk during the 2022–2024 period using the Cost-Volume-Profit (CVP) approach. The analysis was conducted based on audited annual financial statements using the Contribution Margin Ratio (CMR), Break-Even Point (BEP), Margin of Safety (MOS), and Margin of Safety Ratio (MOSR). Prior to the calculations, all expense accounts were classified into variable and fixed costs using the Account Analysis Method based on information contained in the Notes to the Financial Statements (CALK). The results of this classification were then used as the basis for calculating each Cost-Volume-Profit indicator.

Table 1. Results of the Cost-Volume-Profit Analysis for PT Wilmar Cahaya Indonesia Tbk for 2022–2024

Description	2022 (Rp)	2023 (Rp)	2024 (Rp)
Actual Sales	6.139.749.928.728	6.337.428.625.946	8.002.904.770.455
Total Variable Costs	5.748.563.832.096	5.864.654.529.006	7.456.859.784.077
Total Fixed Costs	155.000.000.000	158.000.000.000	163.068.513.207
Contribution Margin Ratio	0,0637	0,0746	0,0682
Break-Even Point (Rp)	2.433.281.004.709	2.117.962.466.487	2.385.716.280.030
Margin of Safety (Rp)	3.706.468.924.019	4.219.466.159.459	5.617.188.490.425
Margin of Safety Ratio (%)	60,37	66,58	70,19

Source: Annual Financial Reports of PT Wilmar Cahaya Indonesia Tbk (2022–2024), compiled by the author (2026).

Based on Table 1, PT Wilmar Cahaya Indonesia Tbk's actual sales increased during the study period, rising from Rp6.14 trillion in 2022 to Rp6.34 trillion in 2023 and further increasing to Rp8.00 trillion in 2024. This increase in sales was accompanied by a rise in total variable costs from Rp5.75 trillion in 2022 to Rp7.46 trillion in 2024. Meanwhile, total fixed costs saw a relatively small increase, rising from Rp155.00 billion to Rp163.07 billion over the same period.

The contribution margin ratio changed from 6.37% in 2022 to 7.46% in 2023, then decreased to 6.82% in 2024. This change indicates that the contribution of sales toward covering variable costs increased in 2023 but then decreased the following year. The Break-Even Point was recorded at Rp2.43 trillion in 2022, decreased to Rp2.12 trillion in 2023, and then increased again to Rp2.39 trillion in 2024. Compared to actual sales, the Break-Even Point remained at a relatively lower level throughout the entire observation period. The Margin of Safety in absolute terms increased from Rp3.71 trillion in 2022 to Rp4.22 trillion in 2023, and then rose to Rp5.62 trillion in 2024. A similar increase was also observed in the Margin of Safety Ratio, rising from 60.37% in 2022 to 66.58% in 2023 and reaching 70.19% in 2024. These results indicate that the difference between actual sales and break-even sales widened over the study period. In addition to the Cost-Volume-Profit indicators, this study also presents the development of several macroeconomic indicators that served as the operational context for the company during the observation period.

Table 2. Indonesia's Macroeconomic Indicators for 2022–2024

Year	Inflation (%)	Kurs USD/IDR	Price CPO (USD/MT)
2022	5,51	15.731	1.200
2023	2,61	15.416	950
2024	1,50	16.000	1.100

Source: Central Bureau of Statistics (2025); Bank Indonesia (2025); World Bank Commodity Markets Outlook (2025), compiled by the author (2026).

According to Table 2, Indonesia's inflation rate declined from 5.51% in 2022 to 2.61% in 2023 and fell further to 1.50% in 2024. The exchange rate of the rupiah against the U.S. dollar fluctuated, standing at Rp15,731/USD in 2022, Rp15,416/USD in 2023, and Rp16,000/USD in 2024. Meanwhile, the price of Crude Palm Oil (CPO) also showed changes during the study period, ranging from USD1,200/MT in 2022 to USD950/MT in 2023, then rising to USD1,100/MT in 2024. The data in Table 1 and Table 2

show that during the study period, there were changes in both the Cost-Volume-Profit indicators and the macroeconomic indicators. These results form the basis for the discussion regarding changes in the Break-Even Point and Margin of Safety, as well as their interpretation in the context of developments in inflation, exchange rates, and CPO prices in the discussion section.

4.2 Discussion

4.2.1 Interpretation of the Break-Even Point from a Cost-Volume-Profit Perspective

The research findings indicate that PT Wilmar Cahaya Indonesia Tbk's break-even point (BEP) ranges from Rp2.12 trillion to Rp2.43 trillion for the 2022–2024 period. Compared to actual sales, which have continued to rise each year, this figure indicates that the company is maintaining sales levels well above the break-even point. From a Cost-Volume-Profit (CVP) perspective, this situation indicates that changes in fixed costs during the study period were relatively limited compared to sales growth, meaning that the minimum sales level required to cover all costs did not change significantly.

This finding aligns with the Cost-Volume-Profit concept, which states that the Break-Even Point (BEP) is an indicator of the minimum sales threshold a company must achieve to cover all fixed and variable costs. Therefore, changes in the BEP reflect changes in the relationship between cost structure and sales volume, rather than directly indicating the company's overall financial condition. The results of this study are also consistent with the findings of Santoso (2022), Fauzi *et al.*, (2024), and Rachman *et al.*, (2024), which show that Break-Even Point (BEP) analysis serves as the basis for setting sales targets and evaluating cost structures in profit planning. Thus, the stability of the BEP at PT Wilmar Cahaya Indonesia Tbk indicates that the minimum sales required to reach the break-even point remained under control during the study period.

4.2.2 Interpreting the Margin of Safety as a Sales Safety Indicator

The Margin of Safety (MOS) increased consistently from 60.37% in 2022 to 70.19% in 2024. This increase indicates that the gap between actual sales and the break-even point is widening, giving the company greater leeway for a decline in sales before reaching the break-even point. Within the Cost-Volume-Profit framework, this condition reflects an increase in the level of sales safety—that is, the ability of actual sales to remain above the minimum operational threshold indicated by the break-even point. This interpretation aligns with the Cost-Volume-Profit theory, which positions the Margin of Safety as an indicator of sales safety and operational risk, rather than as a standalone measure of the company's financial condition. This finding is also consistent with research by Medyawati and Jamiah (2025), Safitri *et al.*, (2024), and Husna *et al.*, (2024), which show that the Margin of Safety provides information on the extent of a sales decline that can still be tolerated before the company incurs a loss. Thus, the increase in the MOS at PT Wilmar Cahaya Indonesia Tbk indicates that the company maintained a sales position that was increasingly distant from the break-even point during the observation period.

Nevertheless, the results of this study should not be interpreted as evidence that the company possesses higher financial resilience. Financial resilience is a multidimensional concept influenced not only by sales safety but also by liquidity, profitability, capital structure, cash flow, and the company's ability to adapt to changes in the business environment. Therefore, the Margin of Safety in this study is positioned as an operational indicator within Cost-Volume-Profit analysis that provides information regarding the level of sales safety, rather than as a single proxy for the company's financial resilience.

4.2.3 The Relationship Between Cost-Volume-Profit Analysis Results and Macroeconomic Conditions

The research period coincided with changes in Indonesia's inflation rate, fluctuations in the exchange rate of the rupiah against the U.S. dollar, and changes in the price of Crude Palm Oil (CPO). These three indicators are part of the economic environment that can potentially influence production costs and market conditions for commodity-based manufacturing companies. Therefore, developments in macroeconomic indicators are used in this study as a context for interpreting changes in the results of the Cost-Volume-Profit analysis.

In 2023, inflation declined alongside an increase in the Contribution Margin Ratio and a decrease in the Break-Even Point. Conversely, in 2024, CPO prices rose again, and the Contribution Margin Ratio decreased compared to the previous year, while the Margin of Safety continued to increase because actual sales growth exceeded the change in the break-even point. This pattern indicates that changes in Cost-Volume-Profit indicators occur in tandem with changes in the economic environment faced by the company.

These findings are consistent with Ahsan *et al.*, (2022), who explain that economic policy uncertainty can affect a company's operational conditions and growth through changes in the business environment. Similarly, Apriansyah and Zoraya (2025) demonstrate that economic uncertainty is associated with changes in the performance of manufacturing firms in the ASEAN region. However, since this study employs a descriptive approach and does not conduct causal tests, sensitivity analyses, or econometric modeling, changes in inflation, exchange rates, and CPO prices cannot be identified as direct causes of changes in the Break-Even Point or Margin of Safety. Consequently, macroeconomic indicators are used to provide contextual interpretation of the results, rather than as variables whose effects are tested.

4.2.4 Managerial Implications

The research findings have several implications for the management of PT Wilmar Cahaya Indonesia Tbk. First, periodic evaluation of the break-even point can be used to monitor changes in the minimum sales level required to cover all of the company's costs. Second, monitoring the margin of safety can help management evaluate the level of sales security so that changes in the company's position relative to the break-even point can be identified earlier. Third, changes in the Contribution Margin Ratio highlight the importance of controlling variable costs to ensure that sales' contribution to profit is maintained when there are changes in raw material prices or market conditions. Fourth, Cost-Volume-Profit analysis should be used routinely as part of the profit planning and budgeting process so that operational decisions can be based on information regarding the relationship between sales, costs, and profit.

Although macroeconomic indicators were not tested for causality in this study, information regarding inflation, exchange rates, and CPO prices remains relevant as part of the business environment monitoring process. Therefore, management needs to consider developments in these indicators when evaluating costs, setting sales targets, and planning profits so that decisions made are more responsive to changes in economic conditions.

5. Concluding Remarks and Recommendation

This study aims to analyze the sales safety level of PT Wilmar Cahaya Indonesia Tbk during the 2022–2024 period using the Cost-Volume-Profit (CVP) approach through the Break-Even Point (BEP) and Margin of Safety (MOS) indicators. The study employs a descriptive quantitative method with a case study approach based on audited annual financial statements. The results show that the company's actual sales increased during the observation period, while the Break-Even Point remained relatively stable. On the other hand, the Margin of Safety rose from 60.37% in 2022 to 70.19% in 2024. These findings indicate that the gap between actual sales and the break-even point widened, meaning that the company's sales safety margin, as determined by the Cost-Volume-Profit approach, also improved over the study period. In addition, trends in inflation, exchange rates, and Crude Palm Oil (CPO) prices were used as context to interpret changes in the Cost-Volume-Profit indicators, without concluding a cause-and-effect relationship between macroeconomic conditions and the analysis results.

This study makes a theoretical contribution by reinforcing the use of the Break-Even Point and Margin of Safety as indicators in Cost-Volume-Profit analysis to evaluate the relationship between sales, costs, and profit. This study also confirms that the Margin of Safety is more appropriately positioned as a sales safety indicator rather than as a standalone measure of financial resilience. From a practical perspective, the research findings provide management with insights into the importance of evaluating cost structure, monitoring the break-even point, and controlling the sales safety margin as part of the profit planning process and operational decision-making. The originality of this study lies in the use of the Cost-Volume-Profit approach, interpreted in conjunction with developments in macroeconomic indicators as the analytical context for a commodity-based manufacturing company, without assuming a causal relationship between the two.

This study has several limitations. First, the study uses only one company as the subject of analysis; therefore, the results cannot be generalized to all manufacturing companies. Second, the study employs a descriptive approach and thus does not test for causal relationships between macroeconomic indicators and changes in the Break-Even Point or Margin of Safety. Third, the analysis focuses solely on Cost-Volume-Profit indicators and therefore does not incorporate other aspects that also influence a company's financial condition, such as liquidity, profitability, capital structure, cash flow, or operational efficiency. Therefore, future research is recommended to conduct a comparative analysis of several companies within the same industry, using an econometric approach or sensitivity analysis to evaluate the impact of macroeconomic factors on Cost-Volume-Profit indicators, and to integrate other financial indicators to gain a more comprehensive understanding of the companies' operational conditions.

Statement of Use of Generative AI

During the preparation of this work, the author used generative artificial intelligence tools to support the scientific writing process. Grammarly was used to check grammar, refine writing style, and improve clarity in scientific writing. All interpretations, analyses, and conclusions presented in this study are the sole responsibility of the author.

References

- Ahsan, T., Al-GAMRH, B., & Mirza, S. S. (2022). Economic policy uncertainty and sustainable financial growth: Does business strategy matter? *Finance Research Letters*, 46, 102381.



- <https://doi.org/https://doi.org/10.1016/j.frl.2021.102381>
- Apriansyah, S., Kamaludin, K., Zoraya, I., Putra, M. T., & Afandy, C. (2025). Economic Policy Uncertainty and Firm Value: The Role of Company Debt. *APMBA (Asia Pacific Management and Business Application)*, 13(3), 249–272. <https://doi.org/10.21776/ub.apmba.2025.013.03.4>
- Arianpoor, A., & Eslami Khargh, F. (2023). How does economic policy uncertainty shift the firm's future profitability enhancement through intangible capital? *Journal of Islamic Accounting and Business Research*, 16(3), 633–654. <https://doi.org/10.1108/JIABR-03-2023-0087>
- Bhimani, S., & Christianto, A. (2023). Comparative Analysis of Variable Costing and Full Costing Methods for Profit Planning and Managerial Decision-Making. *Indonesia Auditing Research Journal*, 12(4), 153–162. <https://journals.iarn.or.id/index.php/ARJ/article/view/265>
- Dailami, A., Kardofa, M., & Saputra, J. (2024). Analysis of Break Even Point and Margin of Safety as A Basis For Profit Planning At PT Unilever Indonesia TBK in 2017-2021. *International Journal of Global Operations Research*, 5, 147–152. <https://doi.org/10.47194/ijgor.v5i3.324>
- Das, N. A., Maison, W., Fitri, N. A., Yeni, F., Daturrahmi, S., Indriati, E., & Fitrian, G. (2025). Analisis Cost Volume Profit Dan Break Even Point Terhadap Perencanaan Laba. *Jurnal Bina Bangsa Ekonomika*, 18(2 SE-), 1572–1579. <https://doi.org/10.46306/jbbe.v18i2.953>
- Ditoananto, A., & Purwanti, L. (2023). Analisis Cost Volume Profit (CVP) Sebagai Alat Perencanaan Laba Pada Usaha Onotaki Dalam Situasi Ekonomi Masa Pandemi Covid-19. *Reviu Akuntansi, Keuangan, Dan Sistem Informasi*, 2(1), 138–144. <https://doi.org/10.21776/reaksi.2023.2.1.119>
- Haeruddin, H., Ibrahim, I., Jamali, H., & Ibrahim, I. (2023). Kondisi UMKM Batu Merah pada pandemic covid: analisis cost volume profit. *JPPI (Jurnal Penelitian Pendidikan Indonesia)*, 9(1), 48–60. <https://doi.org/10.29210/020222005>
- Hesti, H., Aswat, I., & Yunita, K. (2024). Cost volume profit analysis as a profit planning tool at Bukit Husnul. *Neraca Keuangan: Jurnal Ilmiah Akuntansi Dan Keuangan*, 19(2), 211–219. <https://doi.org/10.32832/neraca.v19i2.16600>
- Husna, R. N., Syafina, L., & Nasution, Y. S. J. (2024). Analisis BEP dan MOS sebagai alat perencanaan laba pada UMKM di Toko Berlian Pancing. *Jurnal Manajemen Terapan Dan Keuangan*, 13(03), 772–782. <https://doi.org/10.22437/jmk.v13i03.36682>
- Januarsi, Y., & Taufik, H. E. R. (2025). Uncertainty About Economic Policy and Decisions to Engage in Real Earnings Management: Evidence From Indonesia's Capital Market. *Journal of Indonesian Economy and Business: JIEB.*, 40(2), 274–293. <https://doi.org/10.22146/jieb.v40i2.10194>
- Medyawati, E., & Jamiah. (2025). Analisis Break Even Point (BEP) dan Margin of Safety (MOS) Sebagai Alat Perencanaan Laba Pada CV. Sahabat Catering Tabalong. *JAPB*, 8(2 SE-Articles), 2194–2211. <https://doi.org/10.35722/japb.v8i2.1419>
- Muchsidin, F. F., Ramlah, R., Samalam, A. G., Wahab, A., & Lawalata, I. L. D. (2025). Evaluation of Liquidity, Capital Structure, and Risk Management Challenges in Maintaining Company Financial Stability. *Advances in Management & Financial Reporting*, 3(3 SE-Articles), 681–696. <https://doi.org/10.60079/amfr.v3i3.585>
- Najibah, R., & Putri, N. J. (2025). Perencanaan Laba pada Studio Foto dengan Menggunakan Analisis Cost Volume Profit (CVP) (Studi Kasus Studio Baskara Space Sungai Penuh). *Journal Of Accounting and Finance*, 1(03), 133–145. <https://jurnal.stiesaktialamkerinci.ac.id/jakusi/article/view/25>
- Novia, R. A., Nasution, J., & Nasution, Y. S. J. (2025). Break-Even Point (BEP) Analysis in Determining Service Prices at Duta Laundry Business: Analisis Titik Impas (BEP) dalam Penetapan Harga Layanan di Usaha Laundry Duta. *Academia Open*, 10(2), 10–21070. <https://doi.org/10.21070/acopen.10.2025.11920>
- Nurfia, S., & Rismawandi, R. (2025). Dampak Biaya Produksi, Biaya Operasional, Biaya Keuangan dan Biaya Pajak terhadap Laba Bersih Perusahaan: Studi Empiris pada Perusahaan Manufaktur Sektor Barang Konsumsi Sub Sektor Kosmetik dan Kebutuhan Rumah Tangga yang Terdaftar di Bursa Efek Indonesia. *Jurnal Penelitian Ekonomi Manajemen Dan Bisnis*, 4(4), 22–31. <https://doi.org/10.55606/jekombis.v4i4.5498>

- Purwanti, P., Maulana, I., Nurfadilah, P., & Gultom, R. (2025). Analisis Break-Even Point sebagai Alat Perencanaan Laba pada PT. Agrindo Cahaya Mandiri. *Jurnal Akuntansi Dan Bisnis*, 5(1), 344–353. <https://doi.org/10.51903/jiab.v5i1.1017>
- Rachman, I. N. A., Alexander, S. W., & Latjandu, L. D. (2024). Analisis Break Even Point sebagai Alat Perencanaan Laba pada CV Angin Mamiri Bitung. *Manajemen Bisnis dan Keuangan Korporat*, 2(2), 236–247. <https://doi.org/10.58784/mbkk.171>
- Rafi, M. I. A., Aprelianingrum, A., Indraswari, S. A. D. T., Erong, E. A. E., Wicaksono, F., Putriani, A. A. Y., Hwihanus, H., & Yovita, M. (2025). Hubungan Cost Estimation Reliability, Sales Volume Forecasting, Dan Cost Structure Flexibility Terhadap Keberhasilan Cost-Volume-Profit Analysis Sebagai Alat Perencanaan: The Relationship of Cost Estimation Reliability, Sales Volume Forecasting, and Cost. *Citizen: Jurnal Ilmiah Multidisiplin Indonesia*, 5(6), 1680–1689. <https://doi.org/10.53866/jimi.v5i6.1121>
- Ramadhan, A. A., & Setiawan, B. A. (2024). Analisis break-even point dan margin of safety sebagai perencanaan laba pada Depot Air Minum Aulia Tirta Kabupaten Bekasi. *Jurnal E-Bis*, 8(1), 372–381. <https://doi.org/10.37339/e-bis.v8i1.1451>
- Rohmah, F. Y., Wicaksono, A., Muzakki, K., & Fahriani, D. (2025). Analisis Cost Volume Profit (CVP) sebagai alat perencanaan laba. *Jurnal Akuntansi Dan Manajemen*, 22(2), 65–80. <https://doi.org/10.36406/jam.v22i2.89>
- Safitri, W., Herlin, H., & Rahman, A. (2024). Analisis Break-Even Point dan Margin of Safety sebagai Alat Perencanaan Laba pada Usaha Tahu Sumber Mulya Kota Bengkulu. *Miftah: Jurnal Ekonomi Dan Bisnis Islam*, 2(1), 29–45. <https://doi.org/10.61231/miftah.v2i1.243>
- Santoso, B., Prasetyo, K., & Binastuti, T. (2022). Penerapan Analisis Cost Volume Profit (Cvp) Analysis Untuk Perencanaan Laba Jangka Pendek Pada TKIT Al Fathony Depok. *Eqien - Jurnal Ekonomi Dan Bisnis*, 11(04 SE-Articles), 420 – 435. <https://doi.org/10.34308/eqien.v11i04.1280>
- Syafitri, A. A., Sunarny, R., & Kusdinar, Y. H. (2025). Peran Kebijakan Moneter Dalam Stabilitas Harga Barang Konsumsi: Implikasi Bagi Manajemen Rantai Pasok Ritel. *Sistemik: Jurnal Ilmiah Nasional Bidang Ilmu Teknik*, 13(1), 22–30. <https://doi.org/10.53580/sistemik.v13i1.144>
- Wantira, E., Ridwan, R., & Pekerti, R. D. (2026). Analisis Penerapan Cost-Volume-Profit (CVP) pada Perencanaan Laba di Alma Network Solution. *GEMILANG: Jurnal Manajemen Dan Akuntansi*, 6(1), 182–199. <https://doi.org/10.56910/gemilang.v6i1.3423>
- Winata, D. I. (2025). Sektor Keuangan Sebagai Tulang Punggung Perekonomian Nasional: Analisis Volatilitas Dan Studi Kasus Perusahaan Bank Central Asia (BCA). *Jurnal Ekonomi, Bisnis Dan Pendidikan*, 5(1), 3. <https://doi.org/10.17977/um066v5i12025p3>
- Yanto, M. (2020). Penerapan Cost-Volume-Profit (Cvp) Sebagai Dasar Perencanaan Laba Pada Cv. Usaha Bersama Tanjungpinang. *Jurnal Dimensi*, 9(2), 369–386. <https://doi.org/10.33373/dms.v9i2.2547>
- Yuningsih, R. S. (2023). Analisis Break-Even Point sebagai Alat Perencanaan Laba Jangka Pendek pada CV Wana Jaya Lestari Palembang. Polteknik Negeri Sriwijaya. <http://eprints.polsri.ac.id/id/eprint/14985%0A>
- Ziendy Kharismawati, Indah Dewi, & Zaenuddin. (2021). Analisis Break Even Point (BEP) Sebagai Alat Perencanaan Laba Bagi Manajemen. *Conference on Economic and Business Innovation (CEBI)*, 1(1 SE-Articles Text), 34–45. <https://jurnal.widyagama.ac.id/index.php/cebi/article/view/90>

Corresponding author

Asri Sundari can be contacted at: asrisundari@fe.ukri.ac.id

