

COST VOLUME PROFIT ANALYSIS AS AN EVALUATION OF COFFEE BUSINESS PERFORMANCE

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Abstract: *The aim of this research is to conduct CVP analysis as an evaluation material for company performance. The method used is a descriptive method with a case study approach. This research uses data in the form of financial information consisting of income and expenses, both fixed costs and variable costs. The results of the analysis carried out show that the contribution margin in 2022 is IDR 434,867,070 with a ratio of 59.37%. The break-even point in 2022 is IDR 622,315,669. The sales level of Rp. 732,434,833 is above the break-even point so that the sales made are said to be able to generate maximum profits. The safety margin for 2022 is 15%. The company's high level of security is said to be good because the possibility of loss is small. The margin of safety in 2022 is IDR 110,119,164. The expected profit in 2023 is IDR 80,439,856, therefore the company must be able to achieve the sales target of IDR 757,804,731. CVP analysis can be useful for company management to assist in planning expected future profits.*

Keywords: *CVP Analysis; Coffee Business; Cak Wang Macro Indonesia.*

A. BACKGROUND

A business carrying out operational activities requires good management including planning, organizing, actuating, and controlling. Management is also tasked with making strategic decisions and assessing adequate performance. Management is expected to be able to produce strategic decisions that encourage the achievement of company goals. The company's goal is to generate profits in the short term period and increase the company's value in the long term period. Managers must consider both financial and non-financial aspects to support the decision-making process, and must be equipped with planning guidelines that cover all the action steps needed to achieve company goals. The amount of profit obtained by the company is one of the main indicators of management's success in managing the company. Management must be able to plan and realize the planned profits so that it can be said to be successful management (Mulyadi, 2020).

Cost Volume Profit (CVP) analysis focuses on various factors that influence changes in profit components. A company's profit can be obtained by subtracting total sales from total expenses. CVP analysis can be a tool used to identify the scope and magnitude of economic difficulties faced by a company (Hansen and Mowen, 2011). Management in an effort to see the factors that influence net profit by considering the impact of selling price decisions, sales volume and costs on profit levels using Cost Volume Profit analysis (Yanto, 2020). Cost Volume Profit Analysis relates to the relationship between costs, sales volume and profit, where sales focuses on how many units and total sales can be achieved by the company, to determine profit planning as steps that can be taken in evaluating management and measuring the optimization of company profit creation (Assa, 2013).

Research on Cost Volume Profit (CVP) analysis has been widely carried out, including research Fariz (2013). Based on calculations from the analysis of cost-volume-profit (CVP), indicating that Grasia Hotel Semarang has conducted an evaluation of progress with good profit despite the amount of profit realized is greater than the planned amount of profit as a result of higher variable costs. Research Fatah et al. (2023) that CVP Analysis can be applied to the Gubuk Nenas Business, so that it can determine the amount of product sales volume that must be achieved in the BEP and MOS. Gubuk Nenas business can achieve the profit targeted by the company. Planning can be made from price planning and cost planning which greatly affects the company's profit target achieved. In the cost planning section, the responsible party of the finance department should separate costs based on the total cost method which is separated into fixed costs and variable costs so that the separation will be more objective in planning.

In this case, what differentiates it from other studies is the CVP analysis applied to coffee processing companies in Jember Regency. In this industry, Companies are required to increase the number of processing and sales activities products produced to obtain the desired profit. One of those businesses engaged in the field of coffee processing is Cak Wang Macro Indonesia, an entity that involved in the world of coffee in Jember Regency. Cak Wang Macro Indonesia is a business whose activities are selling ready-to-drink coffee and processing coffee beans. Selected coffee beans from the Local farmers use it as raw material in coffee production activities generated. The products produced are coffee beans and ground coffee in various types which are classified into Robusta, Liberica and Arabica coffee. Each type of coffee has a variety of fans. Based on the company's financial information, it is known. The demand for coffee continues to increase quite significantly

along with the increasing interest of people in consuming coffee. Cak Wang Macro Indonesia's market share is mostly the general public around Jember City. To predict the expected profit by the company, then company management must carry out planning, control, as well as decision making supported by using CVP analysis. CVP analysis easy for companies to do, one of the reasons is because it has been used availability of production data and financial data, namely by conducting analysis break-even point, contribution margin analysis, safety margin analysis, and operating analysis leverage.

B. PROBLEM FORMULATION AND RESEARCH OBJECTIVES

The problem in the research is how to plan the selling price, plan the company's expected profit, and evaluate the company's performance using Cost Volume Profit (CVP) analysis at Cak Wang Macro Indonesia in Jember City. This research aims to determine selling price planning and expected profit planning using Cost Volume Profit (CVP) analysis at Cak Wang Macro Indonesia.

C. RESEARCH METHODOLOGY AND SAMPLE TECHNIQUES

Type of Research

This research is a descriptive type of research with a case study approach. Kuncoro (2009:12) states that descriptive research includes collecting data to test hypotheses or answer questions regarding the latest status of the research subject. The most common type of descriptive research is a case study. In this case, the researcher looked at how cost volume profit analysis was used in making decisions about planning selling prices and expected profits at the coffee processing company, Cak Wang Macro Indonesia in Jember City.

Research Sample

The sample chosen was Cak Wang Macro Indonesia in Jember City whose address is Jalan Mastrip, Sumbersari District, Jember City. The reason for choosing a coffee company as the research object is because Jember City is one of the coffee producing areas and the Cak Wang Macro Indonesia coffee company is a coffee processing company that is experiencing significant development. The research period starts from January to December 2022. The data sources used in this research are primary data and secondary data. Primary data was obtained directly from company management through interviews with company owners/leaders. Meanwhile, secondary data was obtained in the form of notes, as well as documents related to the company's financial and non-financial information. The financial information needed in this research is data about sales volume and costs incurred by the company.

Data Analysis

The data analysis method used in this research is descriptive with a case study approach, where the nature of the research is to describe and describe data or situations and describe or explain in such a way that conclusions can be drawn to answer existing problems.

The research stages carried out are as follows:

1. Collecting information or documents related to the company.
2. Carry out data analysis which includes:

a) Contribution margin analysis. Contribution Margin is the difference between sales and variable costs of a product or service. That is the amount of money available to cover fixed costs and generate profits.

b) Break event point (BEP) analysis. Break event point is a situation where in a company's operations it neither makes a profit nor makes a loss/break even (income = total costs).

c) Analysis of the margin of safety (safety margin) Munawir (2004) states that the margin of safety is the relationship or difference between budgeted sales or a certain sales level and sales at the break even level which is the level of safety (margin of safety) for the company in carrying out reductions. sale.

d) Degree of operating leverage (DOL) analysis. Operating leverage is used to answer the question about how much profit will increase if there is an increase in sales by a certain percentage. Operating leverage analysis can be used by companies to find out how much profit changes as a result of changes in sales by utilizing fixed costs as a profit lever (Yanto, 2020).

3. Analyze the relationship between CVP analysis and selling price planning and expected profit planning. Profit planning analysis shows the large volume of planned profits.

D. DESCRIPTION OF RESEARCH RESULTS

Profit Calculation

The income obtained by Cak Wang Macro Indonesia comes from sales of coffee, both coffee in bean form and coffee in powder form. Meanwhile, operational costs are incurred to cover employee salaries, electricity, internet and others. Cak Wang Macro Indonesia's income and costs tend to be stable every month. Calculation of net profit for 2022 can be calculated by subtracting total income for one year from operational costs for one year. Net profit for 2022 is calculated as follows:

$$\begin{aligned}\text{Net profit} &= \text{Total Sales} - \text{Operational Costs} \\ &= \text{IDR } 732.434.833 - \text{IDR } 667.036.576 \\ &= \text{IDR } 65.398.257\end{aligned}$$

Based on the company's financial data information, it is known that the company's total sales are IDR 732.434.833 and total costs operational costs, namely fixed costs and variable costs amounting to IDR 667.036.576 so that the net profit obtained in 2022 is IDR 65.398.257. Cost Volume Profit analysis is an analysis related to determining sales volume to achieve the desired profit. Costs are classified according to cost behavior, namely fixed costs and variable costs. The definition of fixed costs according to Mulyadi (2010: 507), fixed costs are costs whose total amount remains within a certain range of changes in volume. Fixed costs per unit change with changes in the volume of activity. Characteristics of fixed costs according to Kamaruddin (2009:85): a) Total costs that do not change or are not influenced by the specified period or certain activities; and b) The cost per unit is inversely proportional to changes in volume, at low volumes the fixed cost of the unit is high, whereas at high volumes the fixed cost per unit is low. Meanwhile, variable costs according to Garrison et al. (2013:257): Variable costs are costs whose amount changes proportionally to changes in activity levels. One component of fixed costs incurred by the company is employee salary costs, while variable costs include the cost of coffee raw materials, electricity costs, overhead

costs in the form of plastic and coffee name tags. Production costs incurred by Cak Wang Macro Indonesia in the period January to December 2020 include direct raw material costs, direct labor costs and overhead costs.

Contribution margin analysis

Contribution margin analysis shows the production's ability to contribute to generating profits. The Contribution Margin calculation is as follows: Contribution Margin = Sales – Total Variable Costs

$$= \text{IDR}732.434.833 - \text{IDR}297.567.763$$

$$= \text{IDR}434.867.070$$

Next, calculate the Contribution Margin Ratio which is used to determine the amount of the company's profit contribution, using the following formula:

$$\text{Contribution Margin Ratio} = (\text{Total CM} : \text{Total Sales}) \times 100\%$$

$$= (\text{IDR}435.483.915 :$$

$$\text{IDR}732.434.833) \times 100\%$$

$$= 59,37\%$$

The contribution margin ratio is calculated by dividing the total distribution margin by total sales then multiplying by 100%, resulting in a contribution margin ratio calculation of 59,37%. The company has an overall contribution margin of IDR 434.867.070 or 59,37% of sales. This shows that Cak Wang Macro Indonesia's coffee processing operational activities in the 2022 period had a relatively large contribution to operating profit.

Break event point (BEP) analysis

One of the stages in Cost Volume Profit analysis is calculating the Break Event Point or break even point. BEP shows the minimum limit point for the quantity produced which causes the company to be in a condition of not making a profit and not experiencing a loss. With BEP analysis, it provides information to companies about the minimum sales volume limit that must be achieved so that they do not experience losses but also do not make a profit, as well as the amount of sales that can be achieved to obtain certain benefits.

The break-even point calculation is as follows:

$$\text{BEP (in rupiah)} = \text{Fixed Costs} : \text{CM Ratio}$$

$$= \text{IDR}369.468.813 : 59,37\%$$

$$= \text{IDR}622.315.669$$

Based on the results of the calculation above, it can be seen that fixed costs are IDR 369.468.813 and the contribution margin ratio is 59,37 % so that the break-even point in rupiah is IDR 622.315.669. When compared with sales in 2022 of IDR 732.434.833, the sales level is above the break-even point and it can be said that the company made a profit.

Margin of safety analysis

Margin of safety analysis shows the safety limit for the company if there is a decline in sales. No matter how big the decline in sales occurs, as long as it is within these safe limits, the company will not suffer losses. Calculation of Margin of safety is as follows:

$$\text{Margin of safety} = \text{Total sales} - \text{Sales break even margin}$$

$$= \text{IDR}732.434.833 - \text{IDR}622.315.669$$

$$= \text{IDR}110.119.164$$

$$\text{Margin of safety ratio} = (\text{Margin of safety} : \text{Total Sales}) \times 100\%$$

$$= (\text{IDR}110.119.164 : \text{IDR}732.434.833) \times 100\%$$

$$= 15\%$$

Based on calculations, it is known that the margin of safety is Rp. 110.119.164 with the company's margin of safety level being 15%. If the company exceeds this safety limit, the company will experience losses. The greater the value of the margin of safety ratio, the smaller the risk of the company experiencing losses.

Analysis of the level of operating leverage

Analysis of the level of operating leverage (DOL) shows that a certain level of sales can be measured using the ratio of contribution margin to profit.

$$\text{Calculation of Degree of operating leverage} = \text{Total contribution margin} / \text{profit}$$

$$= \text{IDR}434.867.070 / \text{IDR}65.398.257$$

$$= 6,64$$

Based on calculations, it is known that the total contribution margin is IDR 434.867.070 and profit for 2022 is IDR 65.398.257, so the company's degree of operating leverage is 6,64. Operating leverage is the use of fixed costs to create a higher percentage change in profit when sales levels change.

Profit Planning Analysis

Profit planning analysis is used by companies to determine the desired profit volume. Profit planning calculations are as follows:

$$\text{Expected profit (23\%)} = 2022 \text{ profit} + (\% \text{ profit} \times 2022 \text{ profit})$$

$$= \text{IDR}65.398.257 + (23\% \times \text{IDR}65.398.257)$$

$$= \text{IDR}80.439.856$$

$$\text{Sales (rupiah)} = (\text{Fixed costs} + \text{Expected profit}) : \text{Contribution margin ratio}$$

$$= (\text{Rp.}369.468.813 + \text{Rp.}80.439.856) : 59,37\%$$

$$= \text{Rp.}449.908.669 : 59,37\%$$

$$= \text{Rp.}757.804.731$$

Based on calculations, it can be seen that the company has determined The amount of profit planning for the 2023 period is 23% from the previous year. The company plans to increase profits to IDR 80.439.856 with sales revenue of IDR 757.804.731 for 2023. The calculation results for profit planning are in line with the results of Mulyadi (2020) who set a profit target of IDR 12,000,000 each year, so that the target This profit can be calculated from the minimum sales that must be achieved in the coming year. According to Toliu (2018), after profit is determined, the next step that management must take in an effort to achieve the profit target can be done by reducing operational costs by maintaining selling prices and sales volume. Management can also increase sales volume at the company's capacity level with the assumption that distribution volume can be increased, selling prices remain constant and there is an increase in sales revenue. Apart from that, when management determines a certain selling price to produce the desired profit, the things that management

must consider in the policy of increasing the selling price are market demand, distribution costs, competitors, desired profit and so on. There are assumptions that must be met, namely: Fixed sales volume, no costs incurred, no influence from competitors taken into account.

Cost Volume Profit Analysis

According to Yulistia (2020), CVP analysis can be a tool for companies to help make decisions in achieving the expected profit targets by determining efficient costs, sales quantity or volume, and the right selling price. This analysis shows the mutually influencing relationship between costs, volume and profits in the company. This analysis can also find out how many sales the company must target so that it can at least cover the costs and expenses incurred or in other words reach the break even point. Apart from that, this analysis can find out how much sales can fall from what was planned but still not experience a loss or margin of safety. Cost Volume Profit (CVP) analysis has been proven to be effective in increasing company profits and is useful for management in making decisions. In various industrial fields, companies can use CVP analysis to determine the break-even point which is useful as a benchmark for whether sales have achieved a profit or not. To apply CVP analysis, companies must calculate contribution margin and ratio, break even point, margin of safety and degree of operating leverage and analyze targeted profit planning.

E. CONCLUSIONS AND SUGGESTIONS

1. Conclusion

Based on the results of research and discussions that have been carried out at Cak Wang Macro Indonesia, it can be concluded that from the interview results, information was obtained that the company set a profit target for 2023 of 23% from the previous year. The results of the analysis carried out at Cak Wang Macro Indonesia showed that the contribution margin for 2022 was IDR 434.867.070 with a ratio of 59,37%. The break-even point for 2022 is IDR 622.315.669. The safety limit for 2022 is 15%. The company's security level is quite high, so it can be said to be good, because the possibility of loss is low. The minimum sales amount allowed (margin of safety) in 2022 is IDR 110.119.164. The expected profit for 2023 is IDR 192,803,100, therefore the company must be able to achieve the sales target of IDR 333,262,300 to obtain the planned profit.

2. Recommendation

This research has limitations, namely related to the calculation of fixed cost and variable cost components. Cak Wang Macro Indonesia has various types of coffee products with various selling prices, so researchers do not have the opportunity to analyze multiple products using CVP analysis, so it is hoped that further research can further explain these multi-products. Developing a CVP model for two or more products requires one main assumption, namely that product sales always occur with the same composition or sales mix. Companies can carry out cost analysis well so that in the coming years it is hoped that in implementing cost volume profit analysis, companies should be clearer in classifying costs, whether they are classified as fixed costs or variable costs, especially for raw material costs, the information must be more detailed. From the results of the calculations that

have been carried out, it can be seen that cost volume profit analysis can be used to plan expected profits. Cost volume profit analysis is carried out by calculating the contribution margin, break-even point (BEP) in rupiah, and margin of safety. By using this analytical tool, information can be obtained that the production activities running at Cak Wang Macro Indonesia are very productive and able to contribute to company profits.

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