



Cost Volume Profit (CVP) Analysis As A Tool To Evaluate Profit Achievement At Roti Gembong Gembul Mojokerto

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An abstract

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A business certainly requires good planning regarding the income and costs incurred in order to produce optimal profits as expected. The research problem is how to evaluate profit realization using cost-volume-profit (CVP) analysis on Roti Gembong Gembul Mojokerto. This research aims to determine and evaluate the profits generated by Roti Gembong Gembul Mojokerto. The method used is a qualitative descriptive method with a case study approach. The data collection technique uses primary data obtained from face-to-face interviews with relevant respondents and then carries out data analysis. Data analysis uses Break Event Points (BEP) and contribution margin. The research results show that the BEP (unit) is 1,731 and the BEP (Rupiah) is IDR 43,931,667. Margin contribution ratio of 60%. Margin of Safety is IDR 412.318.333 and Degree of Operating Leverage shows a Contribution Margin of 1105 times operating profit. This data processing uses the help of the Microsoft Excel 2021 program to separate fixed costs and variable costs.

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INTRODUCTION

MSMEs are a sector that has an important role in the Indonesian economy because MSMEs have a real impact on the lives of people whose average income is below so that they can continue their own economic activities to maintain productivity.

Currently, many new types of businesses are emerging and this is in line with government policy to revive the Indonesian economy through MSMEs. With the development of the business world recently, competition between business actors is

of course increasing. In order for the business world to remain competitive, business entities must of course have a good plan regarding income and usage costs in order to create optimal profits. To achieve optimal profits, a business entity must carry out profit planning regarding components that can influence profits, such as costs, sales volume and production. One of the analytical tools used is cost, volume and profit analysis or usually called cost analysis. -volume profit (CVP). Volume or profit cost analysis or profit volume analysis (CVP analysis) is a useful tool for determining the scope and scale of a company's situation to help identify solutions or solutions. CVP This analysis focuses on the relationship between costs, sales volume and selling price as well as all the financial information they contain. CVP analysis can help business entities or in this case MSMEs in determining the expected profit targets and the amount of costs incurred to achieve these profits.

Costs, sales volume, and selling price are factors related to a company's profit plan. An analytical tool that can link three social changes together is called cost-volume-benefit (CVP) analysis. Cost-volume profit (CVP) emphasizes the relationship between costs, revenues, and prices to cover the entire financial information of a company. Cost, volume and profit analysis are the most important elements in profit planning, because these tools are indispensable in helping managers develop profit plans and create sales budgets so that the company can run the business properly. Therefore, planning and decision making regarding profits must be carried out as optimally as possible. The amount of profit generated varies at each stage, this makes the author analyze the maximum profit that MSMEs can achieve at the next stage. CVP analysis will produce a break-even point or commonly known as BEP (break even point), margin of safety (MOS), operating leverage value, break-even point (company closing point) and price contribution margin value. One of the important factors of CVP is the break-even point. By using break-even analysis, businesses can determine the number of sales they need to make to avoid losses.

Roti Gembong Gembul Mojokerto is one of the enterprises or businesses (UMKM) that produces pillow bread in the city of Mojokerto . The financial reports for the Gembong Gembul UMKM certainly use clear details. Gembong gembul bread located on Jl. Mojopahit No. 333, Mergelo has several branches. The price of this bread itself is very affordable for mendang mending, starting from Rp. 15,000-25,000. and there are many different flavors.

RESEARCH METHODS

research uses qualitative research methods field research . This research conducted descriptive research which attempted to describe the actual situation in field. The qualitative method is a research method that attempts understand reality through an inductive thinking process.

Data analysis was carried out inductively based on reality field and then built based on theory. Data analysis was carried out using cost-volume-benefit (CVP) analysis. Through qualitative research , researchers can recognize the subject under study and feel what is happening there field. The author conducted an interview with Roti Gembong Gembul Mojokerto regarding description activity business and how to estimate profits. The data collection technique used in this research is primary data collection, where we conducted face-to-face interviews Face to face with Roti Gembong Gembul Mojokerto to find out cost data , especially variable costs and fixed costs.

RESULTS

Business description

Gembong Gembul Mojokerto Bakery is a bakery outlet that has a variety of delicious flavors. Gembul bread has a delicious and soft texture with a unique appearance. As the name suggests, this bread looks big and wavy, forming six pieces.

Gembong Gembul Mojokerto bread is quite popular bread and is loved by people from all walks of life. One of the advantages of this bread is that it has an abundance of filling, has many flavors from salty and savory to sweet, and has a variety of additional toppings that customers can choose according to their wishes. For the price, Roti Gembong Gembul has a fairly affordable price, starting from Rp. 15,000 – Rp. 25,000. However, at the time of the interview, the average customer bought at Rp. 25,000.

Sales results

Based on the results of interviews with Roti Gembong Gembul Mojokerto, researchers obtained data that the average daily sales were 50 pieces of bread, most of which were priced at Rp. 25,000. With this data, researchers will carry out calculations to find out sales and income in 2022. Calculations to find out total sales units and gross profit annual income can be done in the following way:

1. Find total unit sales and revenue

- It is known that the average daily sales of Gembong Roti is 50 pcs.

$$\begin{aligned} &\text{Average sales per day} \times \text{Selling price} \\ &= 50 \text{ pcs} \times \text{Rp. } 25.000 = \text{Rp. } 1.250.000 \end{aligned}$$

From the calculation above, it can be seen that Roti Gembong's total income per day is IDR. 1,250,000

- If the average sales are 50 pcs in a day, then in a week it can be calculated as follows:

$$\begin{aligned} &\text{Average sales} \times 7 \text{ days (a week)} \\ &= 50 \text{ pcs} \times 7 = 350 \text{ pcs} \\ &\text{So } 350 \text{ pcs} \times \text{Rp. } 25.000 = \text{Rp. } 8.750.000 \end{aligned}$$

From the calculation above, it can be seen that Roti Gembong's income in one week is IDR. 8,750,000.

- If the average sales are 50 pcs a day, then in a month it can be calculated as follows:

$$\begin{aligned} &\text{Average sales} \times 30 \text{ days (a month)} \\ &= 50 \text{ pcs} \times 30 = 1.500 \text{ pcs} \\ &\text{So } 1.500 \text{ pcs} \times \text{Rp. } 25.000 = \text{Rp. } 37.500.000 \end{aligned}$$

From the calculation above, it can be seen that Roti Gembong's income in one month is IDR. 37,500,000.

- If the average sales are 50 pcs a day, then in a year it can be calculated as follows:

$$\begin{aligned} &\text{Average sales} \times 365 \text{ days (a year)} \\ &= 50 \text{ pcs} \times 365 = 18.250 \text{ pcs} \\ &\text{So } 18.250 \text{ pcs} \times \text{Rp. } 25.000 = \text{Rp. } 456.250.000 \end{aligned}$$

From the calculation above, it can be seen that Roti Gembong's income in one year is IDR. 456,250,000.

Based on the calculations above, the Roti Gembong Gembul Mojokerto business already knows the total unit sales and gross profit income in one year. However, this calculation does not include expenses incurred while running the business

2. Detailed cost breakdown

a. Variable Costs

Variable costs are a type of cost that changes in proportion to the volume of production or business activity. This means that variable costs will increase when production volume or activity increases, and vice versa. Variable costs are not fixed and are directly correlated with the company's operational activities. The following is the variable cost data for Roti Gembong Gembul Mojokerto:

Table 2.1. Variable Costs

Information	Unit	Price	Monthly Total	Total for a Year
Flour	187 kg	12,000	2,244,000	26,928,000
Sugar	38 kg	14,000	532,000	6,384,000
Salt	2kg	3,000	24,000	288,000
Yeast	3 kg	100,000	300,000	3,600,000
Egg	47 kg	23,000	1,080,000	12,960,000
Water gallon	6 gallons	5,000	30,000	360,000
Margarine	30 kg	35,000	1,050,000	12,600,000
Milk powder	15 kg	27,000	405,000	4,860,000
Employee salary	3 people	2,000,000	6,000,000	72,000,000
Crackle	30 packs	15,000	450,000	5,400,000
Cardboard box	1,500 pcs	700	1,050,000	12,600,000
Glazed	25 flavors	50,000	1,250,000	15,000,000
Telephone Costs			100,000	1,200,000
Toppings	10 kinds	35,000	350,000	4,200,000
Electricity and Water			350,000	4,200,000
TOTAL				178,380,000

Based on the data above, it can be seen that the total variable cost expenditure in 2022 is IDR. 178,380,000.

b. Fixed cost

Fixed costs are costs that arise periodically and the amount is always fixed or fixed, not influenced by the size of the business volume or business processes taking place during that time period.

Below is the fixed cost data for Roti Gembong Gembul Mojokerto

Table 2.2. Fixed cost

Nama	Satuan	Total Setahun
Mixer	1	3,500,000
Oven	1	3,000,000
Loyang	25	175,000
Timbangan	1	150,000
Gelas takaran	1	25,000
Pisau roti	2	60,000
Centong glazed	25	375,000
Wadah besar	2	90,000
Kuas margarin	3	24,000
Meja for bakery	1	1,500,000
Rak loyang	1	1,700,000
Kulkas	1	3,000,000
Serbet	5	25,000
Spatula	2	20,000
Wadah glazed	25	625,000
Sewa tempat		12,000,000
Apron	3	90,000
TOTAL		26,359,000

Based on the data above, it can be seen that the total fixed costs of Roti Gembong Gembul Mojokerto in 2022 are IDR. 26,359,000.

From the results of the calculations for the Roti Gembong Gembul Mojokerto business in 2022 regarding total sales, income, variable costs and fixed costs, the author will then table Contribution Profit based on the data above to make it easier to calculate the Cost Volume Profit (CVP) analysis .

Table 2.3. 2022 Contribution Report

	Total	Per unit
Penjualan (18.250)	456,250,000	25,000
Biaya Variabel	178,380,000 -	9,774 -
Margin Kontribusi	277,870,000	15,226
Biaya Tetap	26,359,000	
Laba Operasi	251,511,000	

the Cost Volume Profit (CVP) of the Roti Gembong Gembul Mojokerto business can be calculated in 2022:

1. Break Event Point (BEP) Analysis
Break Even Point (units):

Fixed Cost

$$\frac{\text{Fixed Cost}}{\text{Sales per unit} - \text{Variable costs per unit}}$$

From this formula it can be calculated as follows:

$$\frac{26.359.000}{25.000 - 9.744} = 1.731$$

Based on the calculations above, it can be seen that to reach the break-even point in units, Roti Gembong must be able to sell 1,731 pieces of bread so as not to experience a loss.

Finding the contribution margin ratio:

$$\frac{\text{Contribution margin per unit}}{\text{Selling price per unit}}$$

From this formula it can be calculated as follows:

$$\frac{15.226}{25.000} = 0,6 \text{ atau } 60\%$$

Based on the calculation above, the contribution margin ratio is very important in determining business policies, because it shows how the contribution margin will be influenced by total sales. In 2022 the Roti Gembong business will have a contribution margin ratio of 60%.

Break Even Point (Rupiah)

$$\frac{\text{Total Fixed costs}}{\text{Contribution margin ratio}}$$

From the formula above it can be calculated as follows:

$$\frac{26.359.000}{60\%} = 43.931.667$$

Based on the calculations above, it can be seen that to reach the break-even point in rupiah sales, Roti Gembong must be able to sell with a revenue of Rp. 43,931,667.

2. Margin of Safety (Rupiah)

$$\text{Sale} - \text{Sales reach BEP (Rupiah)}$$

From the formula above it can be calculated as follows:

$$456.250.000 - 43.931.667 = 412.318.333$$

Based on the results of the *Margin of Safety calculation*, it gives the maximum amount that the planned sales volume can decrease, so that the business being run does not experience losses, then the maximum decrease that can occur is IDR. 412,318,333.

3. Degree of Operating Leverage

$$\frac{\text{Contribution Margin}}{\text{Operating Profit}}$$

From the formula above it can be calculated as follows:

$$\frac{277.870.000}{251.511.000} = 1,105$$

the Degree of Operating Leverage calculation, the contribution margin is 1.105 times operating profit.

DISCUSSION

The profit amount for Roti Gembong Gembul Mojokerto in 2022 is the beginning of determining profit planning for the following year. Meanwhile, the profit plan is used to calculate the sales plan for Roti Gembong Gembul Mojokerto.

From the calculation results, in 2022 Roti Gembong Gembul Mojokerto must achieve sales of 1,731 pieces of bread and must achieve revenue of IDR. 43,931,667 so that the Roti Gembong business does not experience losses.

Variable costs are the main reason that has the most influence in profit planning. The greater the variable costs incurred, the greater the target that must be achieved. On the other hand, if the variable costs incurred are small then the sales target that must be achieved is also small. It will be easier for companies to achieve sales targets if they plan profits. Therefore, companies must plan profits by keeping variable costs to a minimum so that the company's profit target can be achieved.

Suggestions that can be taken into consideration by Roti Gembong Gembul Mojokerto to improve their business activities even better. Plan the desired amount of profit correctly so that you don't make mistakes in making decisions that will later have an impact on your business. Apart from that, Roti Gembong can reduce variable costs so that sales and income targets can be maximized and achieved.

CONCLUSION

Data analysis carried out by the author on the Roti Gembong Gembul UMKM, Mojokerto using Cost-Volume Profit analysis gave results where the Roti Gembong business had to be able to sell 1,731 pieces of bread to reach the break-even point. Gembong Gembong Mojokerto's bread business also needs to reach its revenue target of IDR 43,931,667. to reach the break-even point. If Roti Gembong's business can break even then there will be no losses. 60% Contribution Margin, Maximum Rupee Margin of Safety which can reduce Rp. 412,318,333 and the operating leverage level is 1.105 times operating profit.

For this reason, the Gembong Roti Company estimates future profits by using Cost Volume Profit (CVP) analysis to estimate maximum profits and find out how many units of revenue must be achieved and total revenue to reach Breakthrough Event Points (BEP).

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