



Cost Volume Profit (Cvp) Analysis As A Profit Planning Tool In Msmes (Case Study Of Pentol Khas Gresik)

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ARTICLE INFO

A bstract

Keywords :

*Cost Volume Profit (CVP);
break even point (BEP),
Profit Planning*

UMKM Pentol Gresik is a micro business unit in the product processing and sales sector which in practice has never calculated basic production costs and applied cost volume profit (CVP), but only records costs that occur in one month to calculate profits. The aim of the research is to calculate Cost Volume Profit (CVP) for Pentol Gresik MSMEs as a profit planning tool, so that alternatives can be taken to obtain higher profits and determine the sales that Pentol Gresik MSMEs must obtain to achieve the set profit targets . The method used is a descriptive method with a case study approach. CVP analysis is carried out through break event point (BEP) analysis, contribution margin. This research shows that in 2023 the contribution margin will be IDR 7,402,422.00. MSME business actors can apply CVP analysis to help plan profits for the coming year.

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E-ISSN: 3026-0965

DOI : _____

INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) are a type of business that has the potential to create wider employment opportunities and make a significant economic contribution to society. They also have an important role in efforts to equalize income distribution, encourage economic growth, and maintain national stability. In recent years, the development and growth of MSMEs has shown a positive trend, and the government has consistently paid special attention to empowering this sector.

With the rapid progress of technology and information in the business world, competition between companies is increasingly fierce. Companies must implement

effective strategy, planning and management to make the right decisions to maintain the stability of their operations. In an ever-expanding economy, a company's primary goal is to increase profits as they grow. Therefore, companies need to plan and use available resources efficiently to achieve their goals. Planning is a key factor in a company's success because it has an impact on the smooth running and achievement of company goals, both short and long term.

Profit maximization is the company's main target, which requires management to plan carefully, including profit planning. Profit is the result of the difference between income received from sales and costs incurred, so profit planning is influenced by sales and expenditure plans. According to Mulyadi (2010: 8), costs are sacrifices of economic resources measured in the form of money, which have been or will be spent for certain purposes.

Profit volume cost analysis helps business managers determine the best combination of various factors that influence profit levels, including product selling prices, sales volume and costs incurred by MSMEs. Accurate planning enables efficient control of business activities and also helps in forecasting the future of MSMEs based on expected profit levels in a particular period.

Cost-Volume-Profit (CVP) analysis is an appropriate method for understanding the interrelationship between costs, sales volume and profit. In profit planning, CVP analysis is used as a tool to understand this relationship. CVP analysis helps management determine the minimum sales level that needs to be achieved in order to avoid losses. In CVP analysis, the results produced include the break-even point, contribution margin, and margin of safety.

UMKM Pentol Gresik, which is widely known and has many branches in various regions in East Java, is the focus of my analysis in one of the branches around the Madura Trunojoyo University campus. Until now, business managers have not calculated the cost of production and have not implemented Cost-Volume-Profit (CVP) analysis or cost-volume-profit analysis. They only record the costs incurred every month. Limited knowledge and resources are the main reasons why business owners do not know the break-even point and alternatives that can be used to achieve certain profit targets in the MSMEs they manage. This condition hampers the company's ability to manage costs efficiently and analyze the sales and profit performance that has been achieved so far.

RESEARCH METHODS

a. Types of research

By considering the existing problems and objectives to be achieved in this research, the researcher chose to use a descriptive qualitative research approach. This descriptive qualitative research approach involves subjects that are the focus of various naturalistic research methods related to people's lives. Data and information were obtained through interviews, field recording, and collecting primary and secondary data from Pentol Gresik MSME owners. The data is then analyzed using the Cost-Volume-Profit analysis tool.

b. Data analysis technique

The data analysis process involves several stages, starting from identifying and classifying operational costs at Pentol Gresik MSMEs based

on cost behavior. The next step is to carry out a cost-volume-profit (CVP) analysis by calculating the contribution margin, break-even point, safety margin, and product marketing strategy. Finally, profit planning is analyzed based on the results of the calculations that have been carried out.

The research uses the following data analysis techniques:

1. Identify cost data obtained from research objects based on cost behavior, namely into fixed cost, variable cost and semi-variable cost components.
2. To calculate the separation of semi-variable costs into variable costs and fixed costs, the least squares method can be used. The formula is:
 $Y = a + bx$

Where: Y= Total cost

a = Fixed costs

b = Variable costs

x = volume unit

3. Calculating contribution margin can be calculated using the formula:
 $MK = \text{Selling Price per unit} - \text{Variable Cost per unit}$
4. Calculate the contribution margin ratio using the formula:
 $RCM = \text{Contribution Margin} : \text{Sales}$
5. Calculate determining *the Break Event Point* (BEP) using the formula:
 $BEP (Rp) = \text{Total Fixed Costs} : \text{Contribution Margin Ratio}$
 $BEP (unit) = \text{Total Fixed Costs} : (\text{Selling Price} - \text{Variable Costs per unit})$
6. Calculate determining sales with profit targets using the formula:
 $\text{Number of units to achieve profit target} = \frac{\text{Total Fixed Costs} + \text{Profit Target}}{\text{Selling Price} - \text{Variable costs per unit}}$
 $\text{Sales Revenue to achieve profit target} = \text{Total Fixed Costs} + \text{Profit Target} : \text{Contribution Margin Ratio}$

c. Research sites

The location of this research is the Pentol Gresik branch of MSMEs which is on Jalan Telang, in front of the WN alley, around the Trunojoyo Madura University campus road, Bangkalan, East Java, Indonesia.

RESULT AND DISCUSSION

Cost Classification

Cost classification of Pentol Gresik MSMEs

Table 1
Variable Costs Pentol Gresik MSMEs

Fee Type	Variable costs per	Variable costs
	product units	per
	A	B
Raw material	Rp. 998	Rp. 3,420
Packaging	Rp. 50	Rp. 100
TKL	Rp. 39	Rp. 35
Gas	Rp. 5	Rp. 10
Total	Rp. 1,092	Rp. 3,565

Source: UMKM Pentol Gresik, data processed in October 2023

Table 2
Fixed cost
Pentol Gresik MSMEs

Fee Type	The amount of costs
Rental costs	Rp. 2,000,000
Electricity (Token)	Rp. 500,000
Employee salary	Rp. 1,300,000
License Fee	Rp. 100,000
Tax	Rp. 200,000
Total	Rp. 3,900,000

Source: UMKM Pentol Gresik, data processed in October 2023

The ingredients used in this production process include wheat flour, minced meat, herbs and spices, and eggs. These ingredients are processed into dough and then made into pentol products. Pentol products consist of small bulbs (Product A) which are priced at IDR 1,000 and large bulbs (Product B) which are sold at IDR 3,000. Below is data on the total sales volume at the Telang branch of Pentol Khas Gresik MSMEs in 2023.

Volume and Total Sales

Table 3
Sales Volume in 2023

Month	Small Pentol		Big Pent	
	Volume (Units)	Price (Rp)	Volume (Units)	Price (Rp)
January	3,272	1,000	800	5,000

February	3,010	1,000	865	5,000
March	2,880	1,000	700	5,000
April	2,808	1,000	980	5,000
May	2,763	1,000	650	5,000
June	2,740	1,000	400	5,000
July	3,120	1,000	800	5,000
August	3,321	1,000	910	5,000
September	2,470	1,000	745	5,000
Total	26,384	1,000	6,850	5,000

Table 4
Total Sales in 2023

Month	Product A	Product B	Total Sales
January	Rp. 3,272,000.00	Rp. 4,000,000.00	Rp. 7,272,000.00
February	Rp. 3,010,000.00	Rp. 4,325,000.00	Rp. 7,335,000.00
March	Rp. 2,880,000.00	Rp. 3,500,000.00	Rp. 6,380,000.00
April	Rp. 2,808,000.00	Rp. 4,900,000.00	Rp. 7,708,000.00
May	Rp. 2,763,000.00	Rp. 3,250,000.00	Rp. 6,013,000.00
June	Rp. 2,740,000.00	Rp. 2,000,000.00	Rp. 4,740,000.00
July	Rp. 3,120,000.00	Rp. 4,000,000.00	Rp. 7,120,000.00
August	Rp. 3,321,000.00	Rp. 4,550,000.00	Rp. 7,871,000.00
September	Rp. 2,470,000.00	Rp. 3,725,000.00	Rp. 6,195,000.00
Total	Rp. 26,384,000.00	Rp. 34,250,000.00	Rp. 60,634,000.00

Source: UMKM Pentol Gresik, data processed in October 2023

From the data above, it can be calculated that the sales mix for small and large pempek products during 2022 is 3.25: 1

Contribution Margin

Product	Contribution Margin per unit of Product				Sales Mix	CM/package
	Price	B. Variable	CM/Unit			
	(Rp)	(Rp)	(Rp)	(Rp)		(Rp)
Small	1,000	1,107	107		3.25	Rp. 347.75
Big	3,000	6,240	3,240		1	Rp. 3,240.00
Total						IDR 3,587.75

Break Even Point Analysis

To determine the break-even point, the contribution margin and contribution

margin ratio must first be determined.

Table 6

Contribution Margin

UMKM Pentol Gresik Telang	
Sale	Rp. 60,634,000.00
Total cost	IDR 53,231,578
Variable	
Contribution Margin	Rp. 7,402,422.00

Pentol Gresik's contribution margin ratio during 2023 is:

$$\begin{aligned} \text{Contribution Margin Ratio} &= \text{Contribution Margin} : \text{Sales} \\ &= 7,402,422 : 60,634,000 \\ &= 12\% \end{aligned}$$

$$\text{Break-even point in sales} = \text{Total fixed costs} : \text{Contribution Margin Ratio}$$

Table 7

**Break Even Point in Sales per month
UMKM Pentol Gresik Telang**

Total Fixed Costs	Rp. 3,900,000.00
Margin Ratio	12%
Contribution	
Break Even Point in (Rp)	Rp. 31,945,301.15

So the break-even point in monthly sales of Pentol Gresik Telang is IDR 31,946,000

Profit Planning

To plan profits in June 2022, calculations will be made based on sales data in May 2022 at Pentol Gresik Telang. With sales in May, it is hoped that there will be an increase in sales which will have a positive impact on profits in 2022.

Based on the results of the interview, Pentol Gresik Telang set a profit target of IDR 4,500,000, an increase of IDR 550,000 (14%) from the previous month, namely IDR 3,950,000. This decision is based on the belief that the company still has the potential to increase sales levels because there is still a lot of demand from customers, and production capacity is still sufficient to increase sales. This increase in sales will have an impact on variable costs, assuming that fixed costs remain constant or do not change.

In order to achieve the desired profit target, the following contribution margin analysis calculation will be used to determine the amount of sales that needs to be achieved by Pentol Gresik Telang.

Sales revenue to achieve profit targets
= Total Fixed Costs + Profit Target: Contribution Margin Ratio
= IDR 3,900,000 + IDR 4,500,000 : 12%
= 7,000,000

This means that the profit target will be achieved if the company succeeds in getting sales of IDR 7,000,000

CONCLUSION

Based on the results of research conducted on Pentol Gresik MSMEs which discussed profit planning using cost volume profit analysis, the following conclusions can be drawn.

1. Cost, volume and expense analysis for more than one product (multiproduct) can be done by determining the sales mix. The sales mix at Pentol Gresik is 3.25: 1
2. After calculating the point analysis break even (BEP) until October 2023, Pentol Gresik will reach its break-even point every year the month with total sales of Rp 31,945,000 and the break-even point can always be achieved every month with a contribution margin ratio of 12%

SUGGESTIONS

1. By applying cost, volume and profit analysis in short-term profit planning, MSMEs can manage costs according to their classification and increase production according to capacity so that costs remain optimal. Additionally, MSMEs can monitor the use of variable costs to increase efficiency and achieve greater contribution margins.
2. To achieve sales targets in line with profit goals in June 2022, owners can consider implementing promotions which are expected to increase sales volume.

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