



Analysis of Break Even Point and Margin of Safety as a Basis for Profit Planning at PT Unilever Indonesia Tbk in 2017-2021

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Abstract

Earning profit or profit is the main goal of establishing a company. To know how much budget needs to be spent to achieve the goal, the profit must be calculated first. Break even point (BEP) analysis is one of the tools to determine the estimated profit from the sale of the products offered. However, a high margin of safety (MOS) will protect the company from the risk of loss. The purpose of this study is to determine the profit planning for PT Unilever Indonesia Tbk. The method used is a descriptive quantitative method with a case study approach. From the research that has been done, the results show that sales have exceeded the predetermined BEP, as well as the MOS value obtained has a positive trend or an increase. In order to get more maximum results or profits the company needs to also pay attention to achieving sales targets. The target can be achieved if the company can make cost efficiency and increase sales volume.

Keywords: Break Even Point, Margin Of Safety, Sales Target

1. Introduction

The establishment of a business is based on continuous business growth (Mitchell, 2004). This growth can be supported by increasing profits in each period. So it is necessary to implement a business strategy as a company step in determining the decisions taken so that the business has competitive competitiveness to achieve the goals that have been set.

One strategy that can be used in maintaining a business is to increase the level of sales, because this will affect the achievement of profits to be obtained (Teece, 2010). This increase in profit is certainly influenced by the level of effectiveness and efficiency of the business itself. Both in terms of revenue, costs incurred and the level of customer satisfaction with the products offered (Carroll, 2010). The size of a profit will also indicate the success of the company in managing its operational activities. Therefore, a business needs to see and understand the opportunities that may occur in the future and carry out profit planning to strengthen the foundation in the face of existing developments so as to minimize losses and business bankruptcy (Goodale, 2011).

Methods that can be used in profit planning are break even point (BEP) and margin of safety (MOS) analysis. This BEP analysis is used to determine when the business will make a profit and the point of return on capital used in the production operational process. Policy formulation in determining costs, volume and profit can also be done with this BEP and MOS calculation. The policy will reflect the level of profit and loss obtained by the company in the future.

PT Unilever Indonesia Tbk is a company engaged in the leading food and beverage manufacturing industry. Because the company can maintain the quality of the products it offers. Until the product has spread to various

regions in Indonesia and even abroad. In order for the company to continue to grow and not experience losses, it is necessary to conduct an in-depth analysis related to cost, volume and profit planning, therefore the authors conducted research with the title Break Even Point Analysis and Margin Of Safety as a Basis for Profit Planning at PT Unilever Indonesia Tbk in order to determine the realization of the policies that the company has set.

2. Literature Review

Production costs have a close relationship in calculating the break-even point (BEP) and Margin Of Safety (MOS) (Ahwal, 2024). Because the size of the costs incurred by the company determines the results/profits to be obtained. According to Qomari, (2019), it is explained that what is meant by production costs are all costs, whether direct or indirect, allocated by the company for the sake of running production activities or processing raw materials into a product so that in the end production costs are often juxtaposed with products.

According to Malmi, (2009), states that (BEP) is information that provides an overview of the minimum sales amount that a company must achieve in order not to lose and also not to profit. In determining BEP, information is needed regarding sales reports and costs incurred by the company. BEP and profit and loss planning are closely related because both describe budgets that include sales prices, sales volumes, and costs, all of which are related to profits. Therefore, in planning it is necessary to apply BEP as a reference for increasing profits and identifying decreasing profits (Alnasser, 2014).

Margin of safety is defined by Malmi (2009) as a level of security that describes how much / how far actual sales are allowed to fall from BEP sales so as not to experience losses. The greater the MOS value ratio, the better because it indicates that there is a low risk of decreasing sales so that the company can avoid losses.

While profit planning is a form of design in achieving company goals, profit planning is also used as a benchmark in assessing company performance (Axson, 2010). In profit planning, the most important thing is to make decisions about setting achievable profit targets, because the first step in profit planning is managing the company through decision making.

3. Materials and Methods

3.1. Materials

In this study, researchers analyzed the Break Even Point, Margin of safety and sales target of PT Unilever Indonesia TBK using quantitative descriptive analysis method. Data is obtained from secondary data sources such as company financial reports, articles, journals (previous studies) and books.

In the analysis, there are several calculations carried out such as calculating the basic price of the product, total sales, cost classification, calculation of EBITDA, BEP, MOS and sales targets. The results of the BEP calculation are the basis for determining conditions that show the minimum revenue that must be obtained by the company in order not to experience losses. The results of the MOS calculation are the basis for determining the safe limit for a decrease in company sales.

3.2. Methods

The Break Even Point (BEP) method is a cost-profit analysis technique used to determine the point at which revenue earned equals costs incurred, so there is no profit or loss. Here are the steps to calculate it:

- (a) **Identify Fixed Costs:** Identify all fixed costs associated with production or operations. Fixed costs are costs that remain fixed no matter how many units are produced or sold.
- (b) **Identify Variable Costs:** Identify all variable costs associated with production or operations. Variable costs are costs that change in proportion to the volume of production or sales.
- (c) **Calculate Contribution Margin:** Contribution margin is the difference between total revenue and total variable costs. It is the contribution of each unit to the reduction of fixed costs and profits.
- (d) **Calculate Break Even Point (BEP) in Units:** BEP in units is the number of units that must be sold to cover fixed costs.
- (e) **Calculate Break Even Point (BEP) in Rupiah Value:** BEP in rupee value is the amount of revenue required to cover fixed costs.

(f) **Analysis:** Once the BEP is calculated, compare it to the projected actual sales to determine if the company will break even or make a profit.

(g) **Sensitivity Analysis:** It is also necessary to conduct a sensitivity analysis, which considers how changes in fixed costs, variable costs, or selling prices will affect the BEP.

The Margin of Safety method is an analytical approach to evaluate how much a company's sales revenue exceeds or misses the Break Even Point (BEP). It provides insight into how much of a drop in sales the company can handle without incurring losses. Here are the steps:

- (a) **Calculate the Break Even Point (BEP):** As explained earlier, BEP is the point at which revenue equals costs, and there is no profit or loss. This is the point where the Margin of Safety begins.
- (b) **Calculate Margin of Safety (MoS):** The Margin of Safety is the difference between the company's actual sales plan and the Break Even Point (BEP). It shows how far the sales revenue exceeds the BEP.
- (c) **Calculate Margin of Safety Ratio:** Margin of Safety Ratio is the percentage of sales revenue that is the Margin of Safety. It gives a better idea of the company's strength in bearing sales fluctuations.
- (d) **Interpretation:** After calculating the MoS and MoS Ratio, companies can evaluate how much they have to spare from breakeven. The larger the Margin of Safety and MoS Ratio, the stronger the company's financial position in the face of economic uncertainty or market fluctuations.
- (e) **Sensitivity Analysis:** As in the BEP method, companies should also conduct sensitivity analysis on factors such as fixed costs, variable costs, and selling prices to understand their impact on the Margin of Safety.

3.2.1. Structure

This research article is divided into several main sections: Introduction, Literature Review, Research Methods, Results and Discussion, Conclusion, and Bibliography.

3.2.2 Formula

BEP There 2 parts:

$$BEP \text{ Unit} = \frac{\text{Total Fixed Costs}}{\text{Price} - \text{variable cost per unit}} \quad (1)$$

$$BEP \text{ IDR} = \frac{\text{Fixed cost}}{\frac{1 - \text{variable cost}}{\text{Sales}}} \quad (2)$$

MOS :

$$MOS = \frac{\text{Sales}}{\text{BEP Idr or BEP Sales}} \quad (3)$$

$$\text{Ratio MOS} = \frac{\text{Mos}}{\text{Sales}} \times 100\% \quad (4)$$

3.2.3 Calculation Result Table

Tabel 1: Calculation results of Contribution Margin of PT Unilever Indonesia Tbk 2017-2021
(in million rupiah)

Description	2017 (IDR)	2018 (IDR)	2019 (IDR)	2020 (IDR)	2021 (IDR)
Sales	41,204,510	41,802,073	42,922,563	42,972,474	39,545,959
Variable Cost	19,984,776	20,697,246	20,893,870	20,515,484	19,919,572
Contribution Margin	21,219,734	21,104,827	22,028,693	22,456,990	19,626,387
Fixed Cost	10,422,133	10,627,387	10,715,376	10,419,902	10,102,086

Net Profit	7,004,562	9,081,187	7,392,837	7,163,536	5,758,148
<i>Source : Financial Report of PT Unilever Indonesia Tbk 2017-2021</i>					

Based on table 1, the contribution margin obtained by PT Unilever Indonesia Tbk has increased until 2021. Meanwhile, in 2020 it decreased with a large enough difference. This indicates that the company is still unable to create operational cost efficiency in order to generate profits for the company.

Tabel 2: Results of Fixed Cost Analysis of PT Unilever Indonesia Tbk 2017-2021
(in million rupiah)

Description	2017 (IDR)	2018 (IDR)	2019 (IDR)	2020 (IDR)	2021 (IDR)
Land	277,326	277,326	277,326	277,326	277,326
Building	2,599,252	2,811,544	2,877,363	2,978,370	3,073,199
Motorized vehicle	25,898	15,205	14,671	13,540	12,555
Construction in progress	1,031,660	841,033	1,245,266	889,998	749,409
Accumulated depreciation	(3,367,083)	(3,944,516)	(4,571,032)	(5,254,870)	(6,013,019)
Fixed Costs	10,422,133	10,627,387	10,715,376	10,419,902	10,102,086

Source : Financial Report of PT Unilever Indonesia Tbk 2017-2021

In table 2, the amount of fixed costs used by PT Unilever Indonesia Tbk in 2017-2021 is increasing. The highest cost at PT Unilever Indonesia Tbk is the use of machinery and equipment. It is known that the average cost used in the 5 years was IDR 10,974,362.2. Meanwhile, the lowest average cost used by PT Unilever Indonesia Tbk in 2017-2021 is motor vehicles or transportation equipment of IDR 16,373.8.

Tabel 3: Results of Variable Cost Analysis of PT Unilever Indonesia Tbk 2017-2021
(in millions of rupiah)

Description	2017 (IDR)	2018 (IDR)	2019 (IDR)	2020 (IDR)	2021 (IDR)
Total Production Cost	18,247,949	19,036,380	19,964,545	18,351,739	17,930,635
Work in process inventory					
Beginning of the year	163,856	114,121	95,820	70,491	95,793
End of year	(114,121)	(95,820)	(70,491)	(95,793)	(64,081)
Finished goods inventory					
Beginning of the year	1,505,221	1,502,534	1,802,630	1,700,207	1,479,281
Purchase	1,684,405	1,942,661	801,573	1,968,121	2,013,465
End of year	(1,502,534)	(1,802,630)	(1,700,207)	(1,479,281)	(1,535,521)
Variable Cost	19,984,776	20,697,246	20,893,870	20,515,484	19,919,572

Source : Financial Report of PT Unilever Indonesia Tbk 2017-2021

In table 3, the amount of variable costs at PT Unilever Indonesia Tbk has increased from 2017-2020, while in 2021 it has decreased. In that year there was a decrease in variable costs that occurred due to the pandemic.

3.2.4 Construction of References

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4. Results and Discussion

Tabel 5: Results of *Break Event Point* (BEP) Analysis of PT Unilever Indonesia Tbk 2017-2021 (in millions of rupiah)

Year	Fixed Cost (a)	Variable Costs (b)	Sales (c)	Variable Cost ratio ($\frac{b}{c}$)	Fixed cost/margin ratio ($1 - \frac{b}{c}$)	BEP Sales ($\frac{a}{1-(b-c)}$)
2017	10,422,133	19,984,776	41,204,510	49%	51%	20,237,713
2018	10,627,387	20,697,246	41,802,073	50%	50%	21,049,536
2019	10,715,376	20,893,870	42,922,563	49%	51%	20,878,742
2020	10,419,902	20,515,484	42,972,474	48%	52%	19,938,957
2021	10,102,086	19,919,572	39,545,959	50%	50%	20,355,080

In table 5, the value of the *Break Even Point* (BEP) illustrates the condition of the company in determining its break-even point. This means that if the company wants to make a profit, then sales need to exceed the BEP value. Vice versa, if the company's sales are below the BEP value, it means that the company is losing money. The acquisition value of BEP from PT Unilever Indonesia Tbk in each year fluctuates. But in general, the sales obtained by PT Unilever Indonesia Tbk have exceeded the BEP target set. It means that during these 5 years the company made a profit every year.

Tabel 6: Results of *Margin Of Safety* (MOS) Analysis of PT Unilever Indonesia TBK 2017-2021 (in millions of rupiah)

Year	Sales (a)	BEP Sales (b)	Margin of Safety (MOS) ($a - b$)	Ratio MOS (percent) ($\frac{a-b}{a}$)
2017	41,204,510	20,237,713	20,966,797	50.88%
2018	41,802,073	21,049,536	20,752,537	49.64%
2019	42,922,563	20,878,742	22,043,821	51.36%
2020	42,972,474	19,938,957	23,033,517	53.60%
2021	39,545,959	20,355,080	19,190,879	48.53%

In table 6, it is obtained that the *Margin Of Safety* (MOS) value of PT Unilever Indonesia Tbk has fluctuated. In 2017 the MOS value was 50.88%, 2018 decreased to 49.64%, 2019 increased to 51.36%, 2020 increased to 53.60% and decreased in 2021 to 48.53%. The greater the MOS value, of course, the better, because it can minimize the risks faced by PT Unilever Indonesia Tbk and provide protection if the company experiences a decline in sales.

5.

Tabel 7: Sales Target Analysis Results of PT Unilever Indonesia TBK 2017-2021 (in million rupiah)

Year	Fixed Cost (a)	Net Profit (b)	Contribution Margin Ratio (c)	Sales Target ($\frac{a+b}{c}$)
2017	10,422,133	7,004,562	51%	33,839,181
2018	10,627,387	9,081,187	50%	39,036,532
2019	10,715,376	7,392,837	51%	35,283,569

2020	10,419,902	7,163,536	52%	33,646,710
2021	10,102,086	5,758,148	50%	31,957,393

Table 7 shows that sales of PT Unilever Indonesia Tbk in 2017-2021 have reached the sales target with significant profits.

6. Conclusion

Based on the results of the analysis that has been carried out at PT Unilever Indonesia Tbk, the results show:

- Break Even Point (BEP), sales in the 2017-2021 range have exceeded the predetermined sales BEP. So it can be interpreted that in these 5 years the company has made a profit and avoided losses.
- Margin Of Safety (MOS), the ratio of the MOS value is still fluctuating. In 2018 and 2021 the MOS ratio decreased, but in the following years it showed good results.
- Sales target, even though the BEP calculation has recorded positive results (profit) and the company has received the appropriate sales target.

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