Application Of Break Even Point (Bep) In Determining Profit Planning At Pt. Panorama Sentra Wisata Tbk

Ikhwan Fahruddin Ahwal, Ruzikna, Mandataris

Universitas Riau, Indonesia

Email: ikhwanfahruddinahwal@gmail.com, mandataris@lecturer.umri.ac.id
Correspondence: Mandataris

ABSTRAK

Break Even Point (BEP) analysis with profit planning has a strong relationship and can help companies determine optimal sales targets so that the company's goal of achieving maximum profits can be met. PT. Panorama Sentrawisata Tbk is a company that has gone public, it is hoped that the profits obtained will attract investors to invest in the company. For this reason, it is necessary to analyze the application of BEP in determining profit planning at PT. Panorama Sentrawisata Tbk. This research is quantitative with a descriptive approach. The data used in this research is secondary data. The data analysis method uses the BEP analysis tool which is equipped with MoS analysis. The level of data analysis carried out starts from cost classification, BEP analysis, and margin of safety. The research results obtained in achieving the 2023 profit plan of 80 billion are by selling a minimum of IDR. 2.727.418.455,56, with a Margin of safety or decline in sales that can be tolerated so that the Company is at the break-even point that it does not experience losses of IDR. 888,888,888.89 or 33%.

***Keywords**: break even point, margin of safety, profit planning*

INTRODUCTION

One of the sectors most affected by the COVID-19 pandemic is the tourism sector (Gunawan, 2020). The World Tourism Organization (WTO) stated that 44% of the number of tourists worldwide decreased during the pandemic (Fitriani et al., 2023). Badan Pusat Statistik Indonesia (BPS) released data in 2020, that for every 100 hotel and restaurant businesses, 92 of them experienced a decline in income. Likewise, foreign tourist visits fell by 45% compared to the previous year (Premananda, 2021). Before the pandemic, the tourism sector was the third largest sector that provided foreign exchange for Indonesia after CPO and coal, but during the pandemic, namely 2020-2021, there was a significant decline in the tourism sector's foreign exchange contribution when compared to 2019, as can be seen in the picture following:
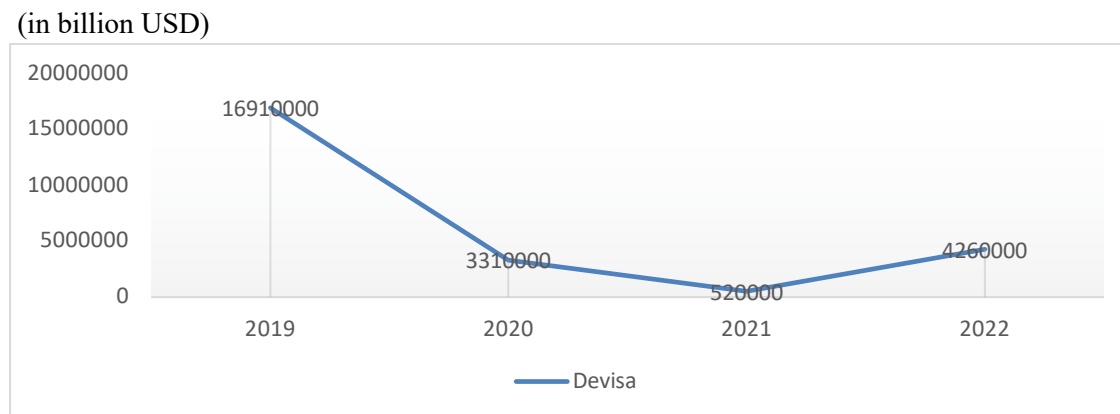
(in billion USD)

Figure 1. Indonesian Tourism Sector Foreign Exchange 2019-2022

This decline in foreign exchange also reflects the decline in income and losses experienced by the tourism sector industry. Apart from that, the effects of the pandemic have also caused stock prices to plummet, including shares of good companies, including tourism sector companies that have gone public and are listed on the Indonesia Stock Exchange (BEI).

Krismawati further stated that there was no difference in investor reactions between before and during the pandemic. This is because investors are still optimistic about the future of the tourism sector even during the pandemic. They believe that there is still hope to survive in this sector even during the pandemic. Based on this explanation, it is clear that the tourism sector is a sector that is still in demand and is a hope for investors in investing (Hamsal & Abdinagoro, 2021; Krismawati et al., 2022).

One of the tourism sector companies that has gone public and is listed on the Indonesia Stock Exchange (BEI) is PT. Panorama Sentrawisata Tbk. The effects of the pandemic were also felt by PT. Panorama Sentrawisata Tbk thus affects the company's profit (loss), as can be seen in the following picture:
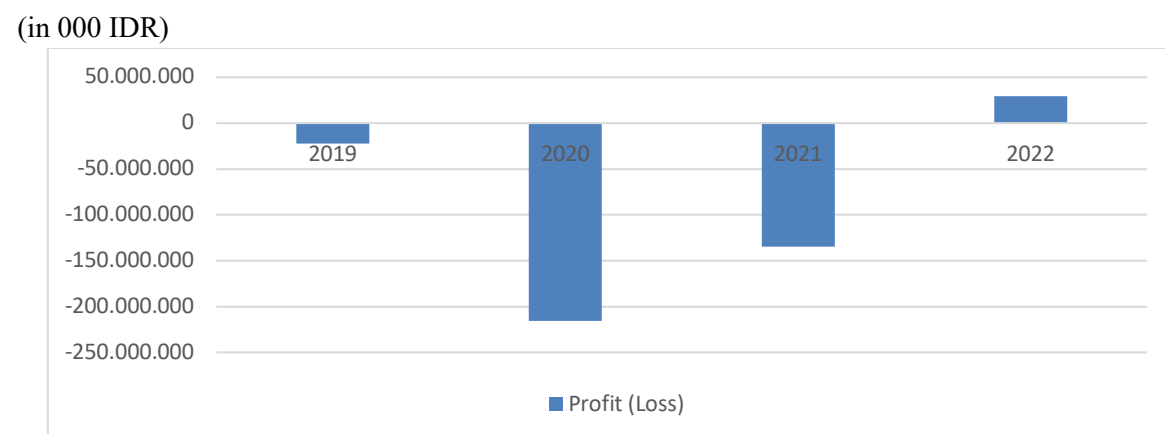
(in 000 IDR)

Figure 2. Profit (Loss) PT. Panorama of Sentrawisata Tbk 2019-2022

Profit is often used as a benchmark by companies to see whether a company's management is successful or not (Suhartono, 2018). For this reason, company management must be able to produce policies that can accelerate the company's efforts to obtain predetermined profits. Three factors

influence profits in a company, namely costs, selling price, and number of product sales. These three factors have a very strong correlation with each other, so these three factors have a very important role in planning, especially profit planning (Yulianto, 2018).

One of the analysis techniques carried out in profit planning is Break Even Point (BEP) analysis, namely the condition where the company has the same amount of income as the amount of costs incurred in the same period (Rahmah et al., 2020). BEP analysis is used to study the relationship between costs, profits, and sales volume. BEP analysis also helps management in planning and budgeting, because it can increase accuracy in cost, production, sales, and profit or loss estimates. This can increase the reliability and credibility of financial reports made by the company (Ananda & Hamidi, 2019).

Literature Review
Break Even Point

Financial report analysis is important to carry out because it can help in analyzing the financial condition of a company as well as the results of past and future operations at that company. There are many ways to carry out an analysis of financial reports, one of which is Break Even Point, which is an analysis used to see the company's breakeven point in making sales, so that the company does not suffer losses. BEP analysis can also be used as a profit planning tool. The advantage of this BEP analysis when compared to other analytical tools is that it can be used to determine the company's minimum sales based on the desired profit target and can determine the allowable sales reduction limit.

The approach taken in BEP analysis in this research is mathematical. This approach is a BEP calculation using algebraic formulas. There are two ways of calculating, namely on a unit basis and based on sales value in IDR.

a. BEP calculation based on units

$$\text{BEP (Units)} = \frac{\text{Fixed Cost}}{\text{Contribution Profit in Units}} \dots\dots\dots\dots\dots\dots\dots(1)$$

b. BEP calculation is based on sales value in IDR

$$\text{BEP (IDR)} = \frac{\text{Fixed Cost}}{1 - \dfrac{\text{Variable Cost}}{\text{Sales}}} = \frac{\text{Fixed Cost}}{\text{Contribution Fees}} \dots\dots(2)$$

The element that is very closely related to calculating BEP is cost. There are three groups of costs when viewed from their behavior, namely fixed costs, variable costs, and semi-variable costs. Semi-variable costs are not used in BEP analysis, because only fixed costs and variable costs will be used in BEP analysis. Therefore, cost classification is needed to provide information related to costs so that it is useful for management.

Profit Planning

Profit target analysis is a tool used to estimate the amount of sales required to achieve profit targets. Profit planning is carried out by setting a profit target, where the profit target takes into account sales and costs for the following year and for a longer period. Profit planning is also one of the stages of improving operational plans to achieve company goals (Akbar1 et al., 2022).

The profit planning formula is as follows:

$$S = \frac{FC + (S)\pi}{CMR} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3)$$

Dimana : S = Sales
FC = Fixed Cost
π = % desired profit
CMR = Contribution Margin Ratio

Margin of Safety (MoS)

The use of BEP analysis needs to be complemented by calculating the Margin of Safety (MoS), which is the maximum limit for sales reduction that can be accepted by the company to prevent losses.

The formula for calculating MoS is:

$$MoS = \frac{\text{Total Sales} - \text{Sales at BEP}}{\text{Total Sales}} \times 100\% \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots (4)$$

Relationship Between BEP and Profit Planning

There is a strong relationship between BEP analysis and profit planning, where there are similarities in discussions related to budgets such as costs, product prices, and sales volumes, which aim to obtain profits.

Companies can use BEP analysis or break-even analysis in planning profits. According to (Kasmir et al., n.d.), break-even analysis will guide the minimum production amount or the minimum number of products that must be sold, so that the company gets maximum profit. This analysis also functions as a benchmark to determine increases and decreases in profits that will not cause the company to suffer losses.

METHOD

This research is quantitative research with a descriptive approach. The type of data used in this research is secondary data, namely in the form of PT financial reports. Panorama of Sentrawisata Tbk for the 2019-2022 period was obtained from the Indonesian Capital Market Directory via the Indonesian Stock Exchange (BEI) website, namely www.idx.co.id.

The data analysis method for this research is quantitative with a descriptive approach using the BEP analysis tool which is equipped with MoS analysis with the stages in the analysis as follows:

1. Cost Classification, namely classifying or grouping costs based on their type.
2. BEP analysis, namely carrying out BEP analysis in the last 4 years, namely the 2019-2022 period using the IDR BEP formula.
3. Margin of Safety (MoS), namely conducting an analysis of the limit for sales decline over the last four years, the 2019-2022 period. The MoS formula used is:

$$MoS = \frac{\text{Total Sales} - \text{Sales at BEP}}{\text{Total Sales}} \times 100\% \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots (5)$$

$$\text{Ratio MoS} = \frac{\text{MoS}}{\text{Total Sales}} \times 100\% \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(6)$$

4. Profit Planning. The basis used to calculate profit planning is the 2022 financial report and calculating the estimated profit for 2023.
5. The next step is to calculate the lower limit on the number of sales that will allow the expected profit to be obtained, using the following formula:

$$\text{Minimum Sales} = \frac{\text{Fixed Cost in 2022 + Profit Target for 2023}}{1 - \left\{ \dfrac{\text{Variable Cost in 2022}}{\text{Revenue in 2022}} \right\}} \ldots\ldots(7)$$

6. Then calculate MoS and MoS Ratio using the formula:

$$\text{MoS} = \text{Total Penjualan yang Direncanakan} - \text{Penjualan pada BEP} \ldots(8)$$

$$\text{RatioMoS} = \frac{\text{Total Planned Sales} - \text{Sales on BEP}}{\text{Total Planned Sales}} \times 100\% \ldots(9)$$

RESULTS AND DISCUSSION

Cost Classification

The initial step in BEP analysis is to classify or group the types of costs, namely fixed costs and variable costs contained in the company according to their nature. Based on the classification that has been carried out, it is known that there are semi-variable costs consisting of telephone and electricity costs as well as repair and maintenance costs. As is known, in BEP analysis there are only two types of costs, namely fixed costs and variable costs. To determine the status of these semi-variable costs, the classification uses an analytical approach.

On this basis, telephone and electricity costs, as well as repair and maintenance costs, are categorized as fixed costs, because the company's telephone and electricity bills will never change to IDR 0 when production activities stop, because there will still be minimum telephone and electricity bills that must be paid every month. Likewise, with repair and maintenance costs, these costs will continue to exist even if the company's activities are not running.

Break Even Point (BEP) Analysis

BEP is a condition when the amount of revenue is equal to the amount of costs. In this condition, the company does not make a profit but also does not experience a loss. To be able to calculate BEP PT. Panorama Sentrawisata Tbk for the 2019-2022 period uses the following BEP IDR formula:

$$\text{BEP (IDR)} = \frac{\text{Fixed Cost}}{1 - \text{Variable Cost}} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(10)$$

Sales

The following are the results of BEP calculations PT. Panorama Sentrawisata Tbk for the 2019-2022 period:

Table 1. *Break Even Point* **PT. Panorama Sentrawisata Tbk 2019-2022**

(in 000 IDR)

Year	Fixed Cost	Variable Cost	Sales	BEP IDR
2019	357.060.181	1.601.557.512	1.951.162.527	1.983.667.672,22
2020	255.473.371	732.010.570	793.211.964	3.193.417.137,50
2021	162.706.885	231.023.159	239.239.995	5.423.562.833,33
2022	165.467.661	1.382.087.112	1.526.643.156	1.838.529.566,67

Source: Processed Research Data, 2023

Based on the calculations in the table above, the BEP value for 2019 is IDR. 1.983.667.672,22, which means that to reach the break-even point in 2019, PT. Panorama Sentrawisata Tbk must be able to record sales of IDR. 1.983.667.672,22. BEP for 2020 is IDR. 3.193.417.137,50. Thus, in 2020 the company must be able to achieve minimum sales to be at the break-even point of IDR. 3.193.417.137,50. In 2021, a value of IDR. 5.423.562.833,33. Thus, the break-even point for the company in 2021 is to get a minimum sales value of IDR. 5.423.562.833,33, and in 2022 the BEP value obtained will be IDR. 1.838.529.566,67, which means that the minimum sales value the company must achieve to be at the break-even point is IDR. 1.838.529.566,67.

BEP value at PT. Panorama Sentrawisata 2019-2022 fluctuates. In the 2019-2021 period, the BEP value experienced an increase, where the increase was quite significant. This increase is inseparable from the decline in sales that occurred in 2020 and 2021, while the decline in fixed costs and variable costs was not too large. In 2022, the BEP value will decrease compared to 2022. This is due to the increase in sales that occurred

Margin of Safety (MoS)

BEP analysis needs to be complemented by the Margin of Safety analysis. MoS analysis is one element in measuring company security and is useful for companies in providing information regarding the realization of the sales reduction limits allowed in the BEP so that the company does not experience losses. The MoS value provides direction for company management regarding the maximum sales amount that can be planned so that the company does not suffer losses. MoS also functions as a distance limit, where if the number of sales decreases beyond a predetermined distance limit, the company will experience a loss.

The following are the results of calculating the Margin of Safety value at PT. Panorama of Sentrawisata Tbk for the 2019-2022 period :

Table 2. *Margin of Safety* **PT. Panorama Sentrawisata Tbk 2019-2022**

(in 000 IDR)

Year	Sales	BEP	MoS	MoS Ratio(%)
2019	1.951.162.527	1.983.667.672,22	-32.505.145,22	- 2 (0)
2020	793.211.964	3.193.417.137,50	-2.400.205.174,50	-303 (0)
2021	239.239.995	5.423.562.833,33	-5.184.322.838,33	-2167 (0)
2022	1.526.643.156	1.838.529.566,67	-311.886.410,67	-20 (0)

Source: Processed Research Data, 2023

From the calculation results it is known that the percentage ratio of Margin of safety of PT. Panorama Sentawisata Tbk for the 2019-2022 period has a negative value. This negative value indicates that the company's business is below the break-even point, which also shows that the costs incurred by the company have not been able to cover the business income obtained by the company.

In 2022, the company will make a profit, but the company's profit will be helped not by operating income, but by other income obtained by the company such as sales of fixed assets, profits obtained from associated entities, recovery of allowances for receivables and profits from the disposal of subsidiaries. company

The initial stage in profit planning is to determine the profit value desired by the company or organization. Based on the information the author got, PT. Panorama Sentrawisata Tbk for 2023 plans to double its revenue growth from 2022 (www.liputan6.com) with projected profits reaching IDR. 80 billion (www.bisnis.com).

Based on this information, where the company's profit target for 2023 is known, the profit planning at PT. The Panorama of Sentrawisata is as follows:

$$\text{Minimum Sales} = \frac{\text{Fixed Cost in 2022} + \text{Profit Target for 2023}}{1 - \left\{ \dfrac{\text{Biaya Variabel Tahun 2022}}{\text{Pendapatan Tahun 2022}} \right\}} \quad \text{......(11)}$$

$$\text{Minimum Sales} = \frac{165.467.661 + 80.000.000}{1 - \left\{ \dfrac{1.382.087.112}{1.526.643.156} \right\}}$$

$$\text{Minimum Sales} = \frac{245.467.661}{1 - 0{,}91}$$

$$\text{Minimum Sales`} = \frac{245.467.661}{0{,}09}$$

Minimum Sales = 2.727.418.456,56 (in 000 IDR)

Based on the results of profit planning calculations for 2023, it is known that to achieve the projected profit of IDR 80,000,000, the company must be able to record sales of at least IDR 2.727.418.456,56.

Based on profit planning for 2023, the margin of safety value for 2023 is then calculated so that the company knows the limit value for the allowable sales decline using the following formula:

MoS = Total Planned Sales – Sales at BEP 2022 …………………………..…..(12)

Mos = IDR 2.727.418.456,56 – IDR 1.838.529.567,67

MoS = Rp. 888.888.888,89 (in 000 IDR)

Meanwhile, for the margin of safety ratio in 2023, the following formula is used:

$$\text{MoS Ratio} = \frac{\text{MoS 2023}}{\text{Planned Sales}} \times 100\% \quad \text{.......................(13)}$$

$$\text{MoS Ratio} = \frac{888.888.888,89}{2.727.418.456,56} \times 100\%$$

MoS Ratio = 33%

Based on the calculation results of the margin of safety in 2023, a margin of safety value of IDR 888,888,888.89 or 33%, which means that if the company does not want to suffer losses in 2023, the tolerable decline in sales is IDR. 888,888,888.89 or 33%. If the decline in sales exceeds the MoS ratio value in 2023, the company will experience a loss.

Discussion

The success of a company cannot be separated from the planning and control carried out to maintain the stability of the business being run. In general, the management of a company always sets company goals that cannot be separated from profits. Achieving profits certainly requires planning. Therefore, for a company to achieve its goal of getting the desired profit, the company must make a profit plan (Karnadi & Hermawati, 2019). Profit planning is a very important activity for company management to carry out so that the company can maximize the desired profit. After planning profits, the next thing the company must do is make decisions regarding the business it is running. Increasing the number of sales is a solution that can be implemented by the company because increasing the number of sales will encourage to get maximum results.

BEP analysis is one tool in making profit planning. Calculating and knowing the BEP by the company can make it easier for management to make profit plans and can estimate problems that might occur which could cause losses to the company (Herispon, 2018).

Optimal profit planning requires a thorough plan to obtain the predetermined profit. The solution that can be used in profit planning and determining minimum sales amounts is to carry out BEP analysis so that the company can compete and develop in the future. Profit planning determines the income needed to obtain the desired profit level under control. In this way, the required profit target can be calculated (Putri et al., 2021).

PT. Panorama Sentrawisata Tbk plans to achieve profits in 2023 based on achievements in 2022. The world of tourism will begin to improve in 2022 since the end of restrictions on human movement due to the COVID-19 pandemic so PT. Panorama Sentrawisata Tbk can record a profit in 2022. On this basis, PT. Panorama Sentrawisata Tbk targets a profit in 2023 of IDR. 80 billion.

The profit target is IDR. 80 billion in 2023, then the minimum sales that must be achieved by the company is IDR. 2.727.418.456,56. With this sales target, a margin of safety value of Rp. 888,888,888.89 or 33%, or in other words so that PT. Panorama Sentawisata Tbk to avoid losses, the company must be able to achieve a minimum sales target of 67%.

Kusumawardani & Alamsyah (2020) stated that the relationship between the Margin of Safety and BEP analysis is useful in determining the amount of sales decline so that the company does not

suffer losses (Kusumawardani & Alamsyah, 2020). A small margin of safety shows the large risk of loss that the company can experience, in other words, a company that has a small margin of safety can accelerate the company's loss. Thus, it can be concluded that companies with a larger margin of safety are better than companies with a small margin of safety. The margin of safety will provide information for company management regarding the level of tolerance for a decline in sales that is allowed so that the company does not suffer losses, the aim of which is to find out the break-even point for the company.

CONCLUSION

The 2023 profit planning calculation is based on the 2022 BEP, where the 2022 BEP is IDR. 1.838.529.567,67. PT. Panorama Sentrawisata Tbk has set a profit achievement for 2023 of IDR. 80 billion. The results obtained to achieve the planned profit are by making sales of at least Rp2.727.418.456,56. From this sales target, PT. Panorama Sentrawisata Tbk avoids losses, so the Margin of safety or tolerable decline in sales is IDR. 888,888,888.89 or 33%. In other words PT. Panorama Sentawisata Tbk must be able to achieve a minimum sales target of 67% of the 2023 sales target.

So that the profit target for 2023 can be achieved, PT. Panorama Sentrawisata Tbk is increasing sales and reducing expenses on costs. As a company operating in the tourism travel sector, sales can be increased by increasing the number of tour packages to countries outside the 4 countries that have tourism potential and are visited by many tourists. Regarding reducing costs, companies can consider spending on fixed costs such as salaries and employee benefits as well as rental costs, which have been proven to provide a significant reduction in fixed cost expenses in 2022.

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