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Break Event Point Analysis as a Profit Planning Tool on Barokah Cassava Chips in Baron, Nganjuk

Fathatin Nabila Fajriah[1], Dewi Khalimatul Rohmah[2], Amelia Putri Utami[3], M. Reza Ardiyanto[4]
[1,2,3,4]Management Department, Universitas Trunojoyo Madura

INFO ARTIKEL

Kata kunci:

Break Event Point, Planning Tools, Profit

Abstrak

This study aims to determine the break-even point or Break Event Point (BEP) as a profit planning tool in the Barokah Cassava Chips business. The research was conducted at Ds. Ketarban, Baron District, Nganjuk District. In this study using research. Data collection techniques in this study are observation, interviews and literature review. The Barokah Cassava Chips business has one product with three variants. The original variant with a cost of Rp. 350,000 and a selling price of Rp. 35,000 / kg, obtained a break-even point with a sales target above 10kg with a selling price above Rp. 35,000. The spicy variant with a cost of Rp. 350,000 and a selling price of Rp. 40,000/kg obtained a break-even point with a sales target of 8.75kg with a selling price above Rp. 40,000. The sweet variant with a cost of Rp. 352,000 and a selling price of Rp. 45,000/kg, obtained a break-even point with a sales target of 8.5kg and a selling price above Rp. 40,000.

✉ M.Reza Ardiyanto
(*) Author
Email:
reza.adiyanto@trunojoyo.ac.id[4]

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Introduction

The world is currently experiencing an economic crisis that is quite worrying, Starting with the *Covid 19 pandemic*, continued with the war between Ukraine and Russia which made oil prices soar, not finished with that, currently still heating up Israel's war with Palestine. This also affects the economy around the world. The era

of globalization is always marked by rapid changes in overall economic conditions which cause a number of demands to emerge in response to the changes that occur (Safrizal et al. 2020). No exception in Indonesia, in overcoming the economic crisis, the Indonesian government intensively encourages people in cottage industries, namely by supporting MSMEs (Micro, Small and Medium Enterprises) in all corners of the country. MSMEs (Micro, Small and Medium Enterprises) have a very large contribution to improving the economy of a country, especially in Indonesia today.

Various SMEs began to be found in remote areas, of the many SMEs in Indonesia, culinary SMEs are most in demand by entrepreneurs. Starting from drinks, heavy meals to snacks. In this effort, it turns out that not a few people experience overwhelm in the process of analyzing and determining prices and production volumes. This is also experienced by the Barokah Cassava Chips Business founded by Mr. Slamet in 2018, the business is located at Dsn Sambirejo Ds Katerban Kec Baron.

In the process of determining the price and volume of production, the Company can conduct *a Break Even Profit* (BEP) analysis. *Break Event Point (BEP*) analysis is an analytical method used to determine the smallest sales volume, where a business has not lost but has not made a profit (in other words, profit equals zero) (Syam & Amalia, 2022). High Quality of Service and client-based communication with AI-enabled services is determined by Quality of Experience (QoE) (Padmapriya et al., 2023). In other words, a break-even state occurs when sales are only able to cover the expenses of the production process of a product (Naning Fatmawatie, 2021).

If the company is unable to obtain sales that are higher than the calculation at the break-even level or are unable to approach the sales gains that have been determined, then entrepreneurs should re-analyze and find out the cause of the problem, then start compiling and developing sales strategies to be able to achieve higher sales results so as to get optimal profits (Eka & Widiantini, 2014). Companies must ensure quality for sustainability. (Wildan, 2020).

An analysis of costs, volume and profit or break-even point will provide results that meetseveral criteria (Aris Nur Rahmayani, 2020) first, the history of receipts and outputs is written accuratelyand is a straight line in accordance with the future time span, surthermore, costs are separated into two, namely, tet ap costs and el variable costs, the third is efficiency and productivity is fixed and does not experience a han, then the selling price is fixed and does not change, the sales mix is constant and there is no significant (real) change between initial inventory and ending inventory. Competence is the ability to apply knowledge, skills, behavior and personality to carry out individual and organizational tasks in order to achieve superior work performance. (Hidayat et al., 2022).

Break-even analysis, namely *break event point*, is an analytical tool thatdiscusses the relationship between sales volume and profitability (Emanauli et al., 2021). If the operating system of a business applies fixed costs and variable costs and sales volume is able to cover fixed costs and variable costs, then there is no profit and no loss (Yudianto, 2019). Focus on technologies that enable MCS to be implemented in smart cities, such as task management, data collection, incentive

systems, monitoring, and cost-saving tools. (Wildan et al., 2023). From *the break event point* analysis, entrepreneurs will obtain measurement results, so that entrepreneurs can make several options or strategies that will be taken for business continuity (Hermanto MZ, Togar P.O.Sianipar, 2018).

When the BEP calculation results are getting bigger, the profit to be obtained by the business will be smaller (Emanauli et al., 2021). Technology impacts organizational and business performance (Purnomo et al., 2021). *Break event points* can be used as information in determining the profit planning of a business (Sinta, 2020). Profit planning carried out by management is useful to *support* decisions taken on prices and costs incurred with reference to high and low revenues (Ayoe & Nst, 2021).

BEP calculation is very important for a business because the results of the *break event point* calculation can be used as a basis or reference in formulating profitable profit planning in the future, to match the planned target (Mahardi Siska Angelina, Yerni, 2017). Profit planning includes the stages that will be realized by the business in order to achieve the maximum profit target that has been agreed (Mursalini, 2019). Human resources are by far the most important asset for an organization (Faidal, 2020).

A business is established with the aim of obtaining maximum profits, to obtain these profits requires good and structured profit planning (Romzi & Yossie, 2014). Generally, a business must have an expectation that its business will progress and develop over time, this makes a business have to work as much as possible so that what is expected can be achieved (Gayatri & Amrita, 2019). In recent years, artisan entrepreneurship has attracted increasing attention in the entrepreneurship and management literature (Hasanah et al., 2023). Efficiency can be improved by identifying the distribution of marketing costs among various intermediaries in the marketing channel (Syarif et al., 2022).

Profit planning is useful as a benchmark, and as a basis for evaluating management performance that affects the sustainability of the company. Profit planning contains the stages that will be realized by the company to achieve the desired or previously targeted profit target (Ulfah Setia Iswara, Teguh Gunwan Setyabudi, 2019). Digitalization gives more power to customers and makes businesses think about how to win the market (Jannah, 2021). In the practice of profit planning there are outside forces that can influence the company. Carter revealed that changes in technology, competitors, economic factors, demographics, customer tastes and preferences, social behavior and political factors (Erawati Kartika, 2019).

That way, break event point analysis can be used as a consideration for a manager in making decisions in the sales and production process (Rosianna et al., 2019). Based on the background above, the author is interested in conducting research entitled Break Even Point Analysis on Cassava Chips Business Barokah Dsn Sambirejo Ds Katerban Kec Baron.

Tabel 1. Business profit of Barokah Cassava Chips

Business Profile of Barokah Cassava Chips

Business Name	Barokah Cassava Chips
Enterprises	Micro, Small and Medium Enterprises
Bussines Type	Culinary/Snacks
Name of Business Owner	Bpk. Slamet
Address	Dsn.Sambirejo Ds.Katerban Kec.Baron Kab.Nganjuk East Java
The Barokah Cassava Chips business began to be produced in 2018, for employees of this SME, it only consists of families, namely Mr. Slamet's wife and mother-in-law but during Eid Mr. Slamet usually adds to his workforce. This barokah cassava chip has many flavors including original, spicy, savory, and sweet. Cassava chips are sold at a price of Rp 40,000 per kg, and are provided in packaging at a price of 5,000 / package weighing 125 grams. The calculation of costs and profits carried out by SMEs is still fairly simple, there is no detailed calculation that does not take into account profit targets, and the ability to process and analyze information both information about costs and income information is still fairly lacking.	

Source: Interview Results Related to Barokah Cassava Chips Profile

METODE PENELITIAN

This type of research applied to *break event point* analysis is a form of discriptive research through a literature review approach. According to Sekaran (2011: 159) descriptive research provides an overview of aspects relevant to the phenomenon of attention from the perspective of people, organizations, orientations or others (Fitria Rahmi, Chintia Dwi Saekti, Reni Dahar, 2023). The literature review approach is part of the research process that provides views and directions in a series of scientific research (Atiqah, 2019).

There are two types of data used in this study, namely primary data and secondary data. Primary data was obtained through an interview process with Barokah Cassava Chips business owners. While secondary data is obtained from other references, in the form of articles, journals and data needed in calculating BEP including fixed costs, variable costs, production volume and selling prices. Fixed costs are fixed costs incurred in producing products. Meanwhile, variable costs are costs that change in nature to adjust what is needed in the production process (Anang et al., 2023).

The analysis method in this study is the break-even calculation or BEP. To determine the amount of BEP in units, use a mathematical approach formula (Sulina Surika Hutani, Caska, n.d.), that is:

$$\text{BEP (Q)} = \frac{\text{FC}}{\text{P}-\text{VC}}$$

To calculate the amount of BEP in rupiah using the formula, namely :

$$\text{BEP (Rp)} = \frac{\text{FC}}{1-\frac{\text{VC}}{\text{S}}}$$

RESULT

Abreak-even analysis or BEP is a tool commonly used by management in making decisions on issues related to price, cost, volume of production and sales and profits. To find out on the volume (amount) of sales and production volume how much the Barokah cassava chips business did not suffer losses, the following data table is presented from the Barokah Cassava Chips SME.

Tabel 2. Results of Obtaining Fixed Cost and Variabel Cost Data Per Month

Information		Cassava Chips Original Variant	Cassava Chips Spicy Variant	Cassava Chips Sweet Variant
Variable Cost	Cost of Raw Materials	IDR 13,000	IDR 16,000	IDR 17,500
	Cost of Auxiliary Materials	IDR 5,000	IDR 6,000	IDR 6,000
	Transportation Cost	IDR 10,000	IDR 10,000	IDR 10,000
Total		**IDR 28,000**	**IDR 32,000**	**IDR 33,000**
Fixed Cost	Eletricity Cost	IDR 10,000	IDR 10,000	IDR 10,000
	Machine Depretiation Cost	IDR 60,000	IDR 60,000	IDR 50,000
Total		**IDR 70,000**	**IDR 70,000**	**IDR 60,000**

Tabel 2. Data Recap Results of Fixed Costs and Variable Costs and Selling Prices

No.	Cassava Chips Variants	Fixed Costs (IDR)	Variable Costs (IDR)	Selling Price/Kg (IDR)
1.	Original	IDR 70,000	IDR 28,000	IDR 35,000
2.	Spicy	IDR 70,000	IDR 32,000	IDR 40,000
3.	Sweet	IDR 60,000	IDR 33,000	IDR 40,000

BEP calculation for each variant of Cassava Chips on Barokah Cassava Chips

a. Original Flavored Cassava Chips

BEP for original flavored cassava chips products is expressed in units :

$$\text{BEP (Q)} = \frac{\text{FC}}{\text{P}-\text{VC}}$$

$$= \frac{70.000}{35.000-28.000}$$

$$= \frac{70.000}{7.000}$$

BEP (units) = 10kg

BEP for original flavored cassava chips products is expressed in Rupiah :

$$\text{BEP (IDR)} = \frac{\text{FC}}{1-\frac{\text{VC}}{\text{s}}}$$

$$= \frac{70.000}{1-\frac{28.000}{35.000}}$$

$$= \frac{70.000}{0,2}$$

BEP (IDR) = 350.000

b. Cassava Chips Spicy Variant

BEP for original flavored cassava chips products is expressed in units :

$$\text{BEP (Q)} = \frac{\text{FC}}{\text{P}-\text{VC}}$$

$$= \frac{70.000}{40.000-32.000}$$

$$= \frac{70.000}{8.000}$$

BEP (units) = 8,7kg

BEP for original flavored cassava chips products is expressed in Rupiah :

$$\text{BEP (IDR)} = \frac{\text{FC}}{1-\frac{\text{VC}}{\text{s}}}$$

$$= \frac{70.000}{1-\frac{32.000}{40.000}}$$

$$= \frac{70.000}{0,2}$$

BEP (IDR) = 350.000

c. Cassava Chips Sweet Variant

BEP for original flavored cassava chips products is expressed in units :

$$\text{BEP (Q)} = \frac{\text{FC}}{\text{P}-\text{VC}}$$

$$= \frac{60.000}{40.000-33.000}$$

$$= \frac{60.000}{7.000}$$

BEP (unit) = 8,5kg

BEP for original flavored cassava chips products is expressed in Rupiah :

$$\text{BEP (IDR)} = \frac{\text{FC}}{1-\frac{\text{VC}}{\text{s}}}$$

$$= \frac{60.000}{1-\frac{33.000}{40.000}}$$

$$= \frac{60.000}{0,175}$$

BEP (IDR) = 332.000

After the analysis process of calculating the break-even *point* (BEP) with a mathematical approach, carried out based on data received during research or observation of the Barokah Cassava Chips business, the results of the BEP analysis were obtained as follows: Cassava ,Chips Business Barokah To return his business capital, the owner sells his assets or production goods based on a certain amount and can target the desired profit. The cassava chips business initially cost Rp

350,000 with a selling price of Rp 35,000 / kg, so to break even entrepreneurs had to sell 10 kg and to make a profit had to set the selling price above 35,000 / kg and sold above 10 kg. Pure cassava chips cost Rp 350,000 with a selling price of Rp 35,000 / kg, so to break even entrepreneurs must sell 10 kg and to make a profit must set the selling price above Rp 35,000 / kg and sell above 10 kg. Spicy cassava chips cost Rp 350,000 with a selling price of Rp 40,000 / kg, so to break even entrepreneurs must sell 8.7 kg and to make a profit must set the selling price above Rp 40,000 / kg or sell above 8.7 kg. Sweet cassava chips cost Rp 352,000 with a selling price of Rp 45,000 / kg, so to break even entrepreneurs must sell 8.5 kg and to make a profit must set the selling price above Rp 40,000 / kg or sell above 8.5 kg.

DISCUSSION

With the separation between variable costs and fixed costs, it can help businesses calculate *break event points* that can be used as a reference in formulating future profit planning. From the break *event point* analysis, it can also be known how much the selling price and production capacity needed to break even. According to research conducted by (Sinta, 2020) entitled "Break Event Point (BEP) Analysis as a Short-Term Profit Planning Tool in MSMEs Cafe Limas Palembang" shows that BEP analysis can help companies plan the profits to be achieved by the company.

CONCLUSION

Based on data analysis conducted on the Barokah Cassava Chips business, it can be concluded that break-even analysis or *break event point* (BEP) is a tool used to determine profit planning for a business. By calculating BEP, the costs that run in a business become well organized and identified. The results of the BEP calculation can be used as a reference or target unit that must be sold and determine the selling price in order to obtain high profits.

It is expected that by conducting a BEP analysis, a business can gain profits exceeding the results of the BEP calculation. For the Barokah Cassava Chips business, the results of the BEP analysis can be used as consideration and input for production activities and businesses in order to obtain maximum profits. Further researchers are expected to develop more about the object under study.

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