



Break even point analysis of cireng lava gisting msmes

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ABSTRACT

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One of the MSME Home Industries, Cireng Lava Gisting, which is part of the Molagi Nyemil brand, produces several types of cireng filled with spicy shredded chicken, intestine gizzards, meatballs and sausages. The research method used is a descriptive research method with a quantitative approach. The sample in this research is a financial report in the form of a balance sheet and profit and loss report for MSME Cireng Lava Gisting in 2024. To find out how much costs are incurred to produce products, so that the business makes a profit or at the break-even point, it is necessary to carry out calculations using break even point (BEP) can measure profit. The lowest variable costs for intestinal gizzard contents are IDR 4,956 BEP 1,758 units, sales in 2024 are compared with 2023 which experienced an increase of 33% from 7,825 units to 9,725 units, profit in 2023 IDR 28,080,162,- to IDR 40,184,900,- BEP 2,053 units of shredded chicken filling with variable costs of Rp. 5,681,- profit in 2023 of IDR. 63,989,211,- in 2024 Rp. 106,561,594,- The Cireng product filled with shredded chicken is the fastest product to achieve BEP as well as the product that produces the largest profit compared to other types of products. BEP 2,271 units, namely variable cost meatball content Rp. 6,096,- profit in 2023 is Rp. 13,224,865,- and in 2024 Rp. 21,121,346,- an increase of Rp. 7,896,481,- or 60%, Cireng with sausage filling with variable costs Rp. 7,271,- BEP in 3,249 units in 2023 was achieved in the 8th month, in 2024 at the beginning of the 7th month, where total sales in 2023 were IDR. 50,490,000,- in 2024 to Rp. 67,720,000,- 96% increase in profit from IDR 4,11,562,- to IDR 9,613,917.

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1. INTRODUCTION

In almost all corners of the region, currently Micro, Small and Medium Enterprises (MSMEs) have an important role in the national, social and political economy, so that the development of MSMEs has received attention in various areas. quite a large part of the world. Home industry / home industry is a form of business carried out in the house / environment around the house on a small and simple scale. (Murnaningsih Wahyu Handayani, 2023) MSME Cireng Lava Gisting produces several types of cireng filled with spicy shredded chicken, gizzard intestines, meatballs and sausages, one type of home

industry snack. The existence of MSMEs has encouraged the availability of employment opportunities for the community so that it can reduce the unemployment rate in Indonesia (Guarto et al., 2022).

The further development and increase in the number of MSMEs will indirectly help increase the economic growth of society nationally, in accordance with demand and supply theory, that the development and increase of MSMEs is a sign that the community's economy will also increase. The expansion of MSMEs contributes positively to national economic growth through the dynamics of demand and supply. For these businesses to thrive, especially in competitive culinary markets, it is vital to employ smart and effective strategies that optimize profitability. One such strategy involves the use of Break Even Point (BEP) analysis to measure profit and determine the minimum sales volume required to avoid losses (Fauzi et al., 2024). However, increases in sales volume alone do not necessarily guarantee increased profits, as such growth may be influenced by various factors including promotional strategies, distribution channels, or changes in consumer preferences. Therefore, it is essential to understand to what extent these external variables affect the relationship between costs and profits.

To develop a smart and effective strategy to maximize profits, an appropriate strategy or tool is needed to be able to calculate the increase in sales volume and profits each year, namely break even point analysis. (Fauzi et al., 2024). Net profit is obtained if the sales volume is greater than the costs incurred, while the company will suffer losses if sales are less than the costs incurred, it can be said to be below the break-even point, BEP analysis will really help management in planning and decision making. (Manuho et al., 2021) Costs will determine the selling price, the selling price will affect the number of production units. (Astrin Kusumardani, 2020) One measure that is often used to assess the success or failure of a business is how much profit the business generates. Profit is the income remaining after a company deducts the costs of producing and marketing goods or services from its receipts (Riska & Panday, 2021).

Net profit is realized when sales volume exceeds the total costs incurred, whereas losses occur when sales fall short of this threshold. Management can utilize BEP analysis alongside an understanding of market dynamics to make more informed decisions regarding pricing, production, and strategic promotion (Manuho et al., 2021). A rise in promotional investment or expanded market reach may temporarily increase costs, but if successful, these actions could substantially increase revenues and profit margins

The efforts made to achieve profits are related to sales issues, a high increase in sales does not mean that you will always get large profits. BEP analysis is useful in profit planning, because it helps the company determine the number of units that must be sold to reach the break-even point and make a profit. (Dien Faqihanur Cahyanti, 2024) Starting from the company's goal, namely making a profit, the minimum sales volume that the company must produce in order to avoid losses must be known in advance. Management can use an understanding of the application of the concepts of cost, volume and profit as a basis for planning a profitable composition of cost, volume and profit levels. As interconnected components, the composition must be at an optimal point. (Pelu et al., 2021) In general, the benefit of break event point analysis is that it describes the break even point in a company, the company can know how many units it must produce and sell so that the company does not experience losses. (Ferisanti, Febrisi Dwita, Supardi, 2023) Technique *break event point* This can also be used as a tool in taking important steps such as varying a product or developing innovation, up to operational characteristics to help generate optimal profits or profitability. Cost is the value sacrificed to obtain goods or services with the hope of providing benefits for the present or future. (Murnaningsih Wahyu Handayani, 2023) In his calculations, *break event point* uses the assumption that production costs can be grouped into fixed costs and variable costs. Costs are an exchange rate, expenditure, or sacrifice made to ensure the acquisition of benefits. In financial accounting, expenses or sacrifices at the

acquisition date are reflected by depreciation of cash or other assets that occur now or in the future. (Emor, 2019) The classification of costs is determined according to the objectives to be achieved by classifying them into three groups, one of which is Production Costs, according to the object of expenditure, production costs are divided into: 1) Raw Material Costs; 2) Direct Labor Costs; 3) Factory Overhead Costs. (Lisnawati & Apip, 2018) Production costs are the costs incurred to process raw materials into finished products that are ready to be sold. (Rozi & Shuwiyandi, 2022) "Costs are the acquisition prices that are sacrificed or used in order to obtain (revenues) and will be used as a reduction in income." (Intan Fitriyani, 2020) Cost behavior is the pattern of changes in costs in relation to changes in the volume of activities or activities carried out by the company, in other words cost behavior is a term to describe whether costs change along with changes in output. The size of the costs can be influenced by production volume and sales volume. (Massie et al., 2018) To find out the amount of costs, financial records need to be carried out, because kFinance is the basis of reference for company operations, especially those related to MSMEs, so it must be managed well. If MSMEs are not able to manage their finances well, it can result in losses and even affect the running of the company. (Dyah Ekaningtias, Supriyati, 2021).

The expected benefit for culinary home industry business owners is that they can calculate the Break Event Point (BEP) independently and find out what minimum sales must be achieved for each product in order to reach the desired break-even point. (M. Astri Yulidar Abbas, Sri Wahyuti, Gandi Adnan, 2023) Financial problems do not only arise from low income, but can arise due to inaccuracies in managing finances. (Salma Putri Mellinia, Laeli Budiarti, 2023) The measure that is often used to assess the success or failure of a company's business is the profit obtained by the company. (Rahmi Aminus, 2022) *Break even point* (BEP) is a condition of a company where in its operations it does not make a profit and does not experience a loss. In other words, if all the company's revenues obtained are added up, then the amount will be the same as all the costs incurred.

According to Matdio Siahaan, (2022: 62) *Break even point* is a situation where a company in its operations does not make a profit and also does not suffer a loss so that there is no profit and no loss. *Break even point* is a situation where in the company's operations, the company does not make a profit and does not suffer a loss (Income = Total Costs). According to (Ayu et al., (2021: 67) Break-even point (*Break even point*/BEP) is a point that shows the volume of income that does not result in profit or loss. At BEP, total revenue is equal to total costs so that profit is zero. According to Siswanto, (2021: 80) Understanding *Break even point* is a situation where a business unit operates in a state where there is no profit (profit) and no loss. BEP is a technique used by companies to detect conditions where the company does not experience profits and does not experience losses. *Break even point* is the company's operations using fixed costs (*fixed cost*) and sales volume is only sufficient to cover fixed and variable costs (*variable cost*). The cost of production is a list of production costs that the company must incur in a certain period. Determining the correct product cost price can reduce uncertainty in determining the selling price. When determining the cost price, you must pay attention to what costs are included in the product cost price so that these costs are correct so that you can determine the right selling price in order to make a profit. (Turang et al., 2022) Determining the selling price is one of the important indicators that must be paid attention to, because the higher the targeted selling price can cause the company to fail to face competition. However, the lower the selling price set also causes the company to experience difficulties in achieving its profit target. Thus, the selling price of the product must be based on all costs that have been incurred and the company's desired profit target using a cost control system called target costing (TC). (Anita, 2021) Fatwa of the Indonesian Ulema Council (MUI). The formation of a system based on the prohibition in Islam to invest in businesses categorized as prohibited (haram), for example in

businesses related to the production of haram food or drinks, un-Islamic media or entertainment, etc. (Haslinda et al., 2023) MSME Cireng Lava Gisting produces several types of cireng with spicy shredded chicken filling, gizzard intestines, meatballs and sausages, in its production using various types of raw materials and others, which can be classified as variable costs, fixed costs

Thus, beyond technical cost-volume-profit relationships, this study recognizes that sales volume is also influenced by qualitative elements—consumer behavior shifts, marketing effectiveness, and distribution strategies—all of which must be considered in financial planning. Break-even analysis, when combined with insights into market behavior, becomes a more powerful tool for ensuring sustainability and profitability in MSMEs.

2. RESEARCH METHOD

This research uses a descriptive quantitative approach, which is suitable for micro-level financial analysis such as profit planning in MSMEs. The goal is to systematically describe financial data and business performance through measurable indicators such as costs, sales volume, and profit margins. This method was chosen because it allows for objective calculation of the Break Even Point (BEP) and enables comparisons of cost structures and profitability across product types.

Descriptive quantitative methods are particularly appropriate when analyzing structured financial records, such as balance sheets, income statements, and cost breakdowns, which are commonly used in micro-enterprises. By focusing on numerical data, this approach provides clarity in evaluating how fixed and variable costs impact sales performance and profit levels.

However, we recognize that this approach has limitations. It does not capture qualitative factors such as consumer behavior, marketing effectiveness, or business owner decision-making processes—elements that may also affect profit outcomes. To address this, the results are interpreted within the context of MSME operations, and the discussion reflects possible external influences like promotions, market demand, and distribution strategies. This integration helps provide a more comprehensive understanding of the financial dynamics behind MSME profit planning.

The data used as a source is in the form of: (a) Qualitative Data, namely data obtained from the company in the form of information both verbally and in writing; (b) Quantitative data, namely data obtained from the Business in the form of Financial Reports in the form of Balance Sheets, Profit/Loss Reports, purchase and sales record books. The data sources used are; i) Primary data, obtained directly from business actors based on observations and interviews with Tika Febri Astuti and Ardhi Wiyansyah. ii) Secondary data, obtained from collecting data and observing the financial reports of the MSME Home Industry "Cireng Lava Gisting, which includes, loss/profit, reports/records on the use of fixed costs, variable costs and others.

The operational definition in this research is profit/loss and break point as follows:

- a. Profit with a Totality Approach, namely comparing total income (TR) and total costs (TC). The break-even point can be interpreted as a situation where the company neither makes a profit nor suffers a loss in running its business, (Siti Rohmah, 2024). The formulation of this approach can be found by:

$$\pi = TR - TC \quad (1)$$

$$EP \rightarrow TR - T \quad (2)$$

$$P \cdot Q = TFC + TVC \quad (3)$$

$$P \cdot Q = TFC + (AVC \times Q) \quad (4)$$

$$P \cdot Q - (AVC \times Q) = TFC \quad (5)$$

$$Q (P - AVC) = TFC \quad (6)$$

$$Q = TFC / P - AVC \quad (7)$$

b. Profit with Average Approach

In this approach, the calculation of profit per unit is carried out by comparing the average production cost (AC) with the output selling price (P). Total profit is profit per unit multiplied by the amount of output sold. Can be explained mathematically.

$$\pi = (P-AC) \cdot Q \quad (8)$$

$$\pi = (P-AC) \cdot Q \rightarrow \text{Mak} = P > AC \quad (9)$$

$$\text{BEP} = P = AC \quad (10)$$

$$\text{Rugi} = P < AC \quad (11)$$

3. Break event Point calculation

that BEP has an important role for companies in planning short-term profits, to find BEP the following formula can be used: (Manuho et al., 2021)

$$BEP = \frac{\text{Fixed Costs}}{\text{Selling price per unit} - \text{Variable Costs per unit}} \quad (12)$$

$$BEP = \frac{\text{Fixed Costs}}{1 - \text{Variable costs per unit} / \text{Selling price per unit}} \quad (13)$$

Rachmawati (2020:78) calculation of breakeven point analysis (*Break even point*/BEP) Calculation Formula *Break even point* (BEP) based on units:

$$TR = TC \quad (14)$$

$$P \times X = TFC + V \times X \quad (15)$$

$$P \times X - V \times X = TFC \quad (16)$$

$$(P - V) \times X = TFC \quad (17)$$

$$X = \frac{TFC}{P - V} \quad (18)$$

3. RESULTS AND DISCUSSIONS

Home MSME Industry "Cireng Lava Gisting, which is part of the molagi snack brand, is one of the MSMEs that sell snacks or snacks. It was founded in 2022 in Gisting, Tanggamus Regency by owners named Tika Febri Astuti and Ardhi Wiyansyah. The initial establishment of this MSME was because the owner realized that there was a business opportunity where at that time products were rarely sold in their area, so the idea emerged to make and sell products that were predominantly spicy and freshly made every day. Initially, the product sold was spicy and original basreng. After the launch of the first product, which was initially only tried, it received positive feedback from consumers so that the demand for the product increased, so that not only did they sell basreng, but Cireng Lava Gisting produced several types of cireng filled with spicy shredded chicken, gizzards, intestines. meatballs and sausages. With initial business capital of IDR 150,000, you can now generate a turnover of millions per month. Seeing the large demand for the products being sold, this is what makes the owner confident that this business can become a business opportunity that has promising market prospects. Through digital advances and supported by easy shipping expeditions, products are not only sold in the area around Tanggamus but also sent to outside areas such as Tangerang, Medan, Aceh, Jakarta, Palembang, Bandung, Riau etc. Apart from that, the products were also successfully sent to foreign countries such as Singapore and Dubai. In running this business, the owner is assisted by several employees totaling 6 people. After several months of active sales on social media, the owner saw great potential for further development because at that time there was no sales stand, only selling at home which was not very broad, so in the end the owner had the courage to open a sales stand on the terrace of MSME Gisting in August 2023. With product demand continuing to

increase and supported by good testimonials from consumers who had purchased the product, Cireng Lava Gisting gained enthusiasm and trust from consumers so that it could survive and continue. developed until now.

To find out how big the BEP level is, you need to know how much it costs to produce a certain amount of product, you need to group the types of costs. The costs calculated in this research are grouped into two, namely fixed costs and variable costs. Fixed costs are costs that do not depend on the level of output, in this research they include space rental and marketing costs, depreciation, employee salaries, water costs, electricity and other overheads. Meanwhile, variable costs are costs that change according to changes in output. In this research, these are the costs of main staple materials, spices, raw materials for filling according to the type of product, and other auxiliary materials. Based on financial data in the form of records of costs incurred by each component of fixed costs and variable costs, as well as selling prices for each type of product can be seen in the following table:

Table 1 Cost per unit of "MSME Cireng Lava Gisting"

Cost Per Unit	Fill with		Intestinal	
	shredded chicken	Meatball filling	Gizzard Contents	Sausage Filling
Fixed Costs	8.868.000	8.868.000	8.868.000	8.868.000
Shrinkage	198.000	198.000	198.000	198.000
Overhead	120.000	120.000	120.000	120.000
Marketing/rental	450.000	450.000	450.000	450.000
Officer Salary	8.100.000	8.100.000	8.100.000	8.100.000
Variable Costs	5.681	6.096	4.956	7.271
Flour	2.334	3.231	2.470	3.500
Spices etc	958	1.327	1.015	1.438
Product contents	2.389	1.538	1.471	2.333
Selling Price/Box/Unit	10.000	10.000	10.000	10.000

Data Source: MSME Cireng Lava Gisting

The following are the results of sales recording for 2023 and 2025 which can be seen in the profit and loss report as follows:

Table. 2 Profit/Loss Statement "MSME Cireng Lava Gisting"

Total Sales		349.020.000		509.050.000
Shredded Chicken Filling			267.260.00	
Meatball filling	168.690.000		0	
Intestinal Gizzard Contents	56.590.000		76.820.000	
Sausage Filling	73.250.000		97.250.000	
Selling Price	50.490.000	238.815.199	67.720.000	331.568.243
Shredded Chicken Filling			160.698.40	
Meatball filling	104.700.789		6	
Intestinal Gizzard Contents	43.366.135		55.698.654	
Sausage Filling	45.169.838		57.065.100	
Two Usaha	45.578.438	110.204.801	58.106.083	177.481.757

Source: MSME Cireng Lava Gisting

3.1 Data Analysis

The BEP calculation in units and in rupiah can be seen as follows according to the type of food product produced:

Shredded Chicken Filling	Meatball filling	Intestinal Gizzard Contents	Sausage Filling
$X = \frac{TFC}{\frac{P-V}{8.868.000}}$	$X = \frac{TFC}{\frac{P-V}{8.868.000}}$	$X = \frac{TFC}{\frac{P-V}{8.868.000}}$	$X = \frac{TFC}{\frac{P-V}{8.868.000}}$ (1)
$X = \frac{10.000-5.681}{\frac{8.868.000}{8.868.000}}$	$X = \frac{10.000-6.096}{\frac{8.868.000}{8.868.000}}$	$X = \frac{10.000-4.956}{\frac{8.868.000}{8.868.000}}$	$X = \frac{10.000-7.271}{\frac{8.868.000}{8.868.000}}$ (2)
$X = \frac{4.319}{3.904}$	$X = \frac{3.904}{3.904}$	$X = \frac{5.044}{5.044}$	$X = \frac{2.729}{2.729}$ (3)
= 2.053	= 2.271	= 1.758	= 3.249 (4)

Shredded Chicken Filling	Meatball filling	Intestinal Gizzard Contents	Sausage Filling	
$BEP = \frac{Fixed\ Costs}{1 - \left(\frac{Bv}{Hj}\right)}$	$BEP = \frac{Fixed\ Costs}{1 - \left(\frac{Bv}{Hj}\right)}$	$BEP = \frac{Fixed\ Costs}{1 - \left(\frac{Bv}{Hj}\right)}$	$BEP = \frac{Fixed\ Costs}{1 - \left(\frac{Bv}{Hj}\right)}$	(5)
$BEP = \frac{8.868.000}{1 - \left(\frac{5.681}{10.000}\right)}$	$BEP = \frac{8.868.000}{1 - \left(\frac{6.096}{10.000}\right)}$	$BEP = \frac{8.868.000}{1 - \left(\frac{4.956}{10.000}\right)}$	$BEP = \frac{8.868.000}{1 - \left(\frac{7.271}{10.000}\right)}$	(6)
$BEP = \frac{8.868.000}{1 - 0,5681}$	$BEP = \frac{8.868.000}{1 - 0,6096}$	$BEP = \frac{8.868.000}{1 - 0,4956}$	$BEP = \frac{8.868.000}{1 - 0,7271}$	(7)
$BEP = \frac{8.868.000}{0,43195}$	$BEP = \frac{8.868.000}{0,3904}$	$BEP = \frac{8.868.000}{0,5044}$	$BEP = \frac{8.868.000}{0,2729}$	(8)
= Rp. 20,530,000	= Rp. 22,710,000	= Rp. 17,580,000	= Rp. 32,490,000	(9)

The following Break Even Point calculation results can be seen in the table:

Table. 3 BEPs in the Unit "MSME Cireng Lava Gisting"

Information	Fixed Cost	Variable Cost	Selling price	Number of Units
Shredded Chicken Filling	8.868.000	5.681	10.000	2.053
Meatball filling	8.868.000	6.096	10.000	2.272
Intestinal Gizzard Contents	8.868.000	4.956	10.000	1.758
Sausage Filling	8.868.000	7.271	10.000	3.249

Source: Processed data

MSME Cireng Lava Gisting produces 4 (four) kinds of forms. The difference is the filling of the type, namely shredded chicken, meatballs, intestines/gizzards and sausage filling. It can be seen that the size of the variable costs affects the level of BEP on the number of production units, the lowest variable costs on gizzard/intestine contents of IDR 4,956 will be faster to reach the BEP level, namely when producing 1,758 units and the greater the variable costs, the greater the level of BEP achieved on the product, as seen in Variable costs IDR 5,681, BEP 2,053, variable costs IDR. 6,096 BEP 2,272, and variable costs Rp. 7,271 BEP occurred when Production was obtained at 3,249. It can also be said that the greater the difference in variable costs, the greater the change in the number of production units to reach the BEP point. A change in variable costs from 4,956 to 5,681 by 15% will result in a change in the BEP point level from 1,758 to 2,053 by 17%, or an increase of 1.15 times; variable costs from 5,691 to 6,096 amounted to 7% and BEP points from 2.53 to 2,272 with a change of 11% had an effect on an increase of 1.46 times, and then variable costs from Rp. 6,096 to Rp. 7,271 amounted to 19%. So it can be said that the greater the change in variable costs, the influence on the size of the BEP point and will influence the speed of change

Table. 4 BEP in rupiah "MSME Cireng Lava Gisting"

Information	FC	VC	elling rice	Unit	Nominal	Sale	Differenc e
Shredded Chicken Filling	8.868.000	5.681	10.000	2.053	20.530.000	20.530.000	Rp0
eatball filling	8.868.000	6.096	10.000	2.271	22.710.000	22.710.000	Rp0
Intestinal Gizzard Contents	8.868.000	4.956	10.000	1.758	17.580.000	17.580.000	Rp0
Sausage Filling	8.868.000	7.271	10.000	3.249	32.490.000	32.490.000	Rp0

Source: Processed data

In the BEP in rupiah it is also clear that when the variable costs are the smallest, the BEP level of total costs and sales proceeds is IDR 17,580,000,- increasing according to the size of the variable costs IDR 20,530,000,- IDR 22,710,000,- to the highest at sales of IDR 32,490,000,- where a 15% increase in costs will increase sales by 17%, or 1.15x,

and when variable costs increased by 19%, the BEP level on sales increased to 43% or 2.23x.

Table. 5 BEP and Sale of Suwir Chicken Fillets 2023-2024 "MSME Cireng Lava Gisting"

Month	2023				2024			
	Unit	Sale	Total cost	Profit and loss	Unit	Sale	Total cost	Profit and loss
BEP	810	8.100.000	13.469.610	-	2.053	20.530.000	20.530.000	-
2	1.892	18.920.000	19.616.452	-	2.100	21.000.000	20.798.100	201.900
BEP	2.053	20.530.000	20.530.000	-	4.235	42.350.000	32.927.035	9.422.965
4	3.815	38.150.000	30.541.015	7.608.985	8.589	85.890.000	57.662.109	28.227.891
12	16.869	168.690.000	104.700.789	63.989.211	26.726	267.260.000	160.698.406	106.561.594

Source: Processed data

For the Cireng product filled with shredded chicken, BEP was achieved at the beginning of the third month, namely the number of units was 2,053 with a total cost of Rp. 20,500,000,- sales proceeds Rp. 20,530,000,- while in 2024 the BEP was achieved in the first month so that in the second month the Cireng product type filled with shredded chicken had already made a profit, even though in terms of variable costs and the size of the BEP it was in second place, but the BEP achievement was in first place, with a profit in 2023 of IDR. 63,989,211,- and in 2024 Rp. 106,561,594,-

Table. 6 BEP and Sale of Meatball Stuffing 2023-2024 "MSME Cireng Lava Gisting"

Month	2023				2024			
	Unit	Sale	Total cost	Profit and loss	Unit	Sale	Total cost	Profit and loss
1	395	3.950.000	11.275.920	-	618	6.180.000	12.635.328	-
2	785	7.850.000	13.653.360	5.803.360	1.248	12.480.000	16.475.808	3.995.808
3	1.195	11.950.000	16.152.720	4.202.720	1.863	18.630.000	20.224.848	1.594.848
BEP	1.618	16.180.000	18.731.328	2.551.328	2.271	22.710.000	22.710.000	-
5	2.058	20.580.000	21.413.568	833.568	2.486	24.860.000	24.022.656	837.344
BEP	2.271	22.710.000	22.710.000	-	3.234	32.340.000	28.582.464	3.757.536
6	2.493	24.930.000	24.065.328	864.672	3.762	37.620.000	31.801.152	5.818.848
12	5.659	56.590.000	43.365.135	13.224.865	7.682	76.820.000	55.698.654	21.121.346

Source: Processed data

For Cireng products filled with meatballs, BEP in 2023 reached 2,271 units in the middle of the fifth month with sales of Rp. 22,710,000,- while in 2024 the BEP will occur at the end of the fourth month, meaning there will be an acceleration in achieving the BEP from 2023. The profit level in 2023 will be IDR 13,224,865,- and in 2024 IDR 21,121,346,- will increase by IDR 7,896,481,- or 60% due to the acceleration of the Break Even achievement.

Table. 7 BEP and Sales of Intestinal Ampel Contents 2023-2024 "MSME Cireng Lava Gisting"

Month	2023				2024			
	Unit	Sale	Total cost	Profit and loss	Unit	Sale	Total cost	Profit and loss

1	512	5.120.000	11.405.98	-6.285.984	752	7.520.000	12.594.66	-5.074.664
2	1.036	10.360.00	14.003.45	-3.643.452	1.51	15.150.000	16.377.85	-1.227.855
BEP	1.574	15.740.00	16.888.42	-1.148.426	1.758	17.580.000	17.580.000	-
BEP	1.758	17.580.00	17.580.000	-	293	22.930.000	20.234.401	2.695.599
4	2.176	21.760.00	19.654.43	2.105.568	3.089	30.890.000	24.180.17	6.709.827
12	7.325	73.250.00	45.169.83	28.080.162	9.725	97.250.000	57.065.10	40.184.900

Source: Processed data

For cireng products with Intestinal Gizzard Content, in 2023 the BEP at the end of the third month will be 1,758 units with a total cost = sales of IDR 17,580,000,- while in 2024 the BEP will be achieved at the beginning of the third month. Accelerating the achievement of BEP has a big impact on total sales in 2024 compared to 2023 which experienced an increase of 33% from 7,825 units to 9,725 units, and the level of profit also increased from IDR 28,080,162 to IDR 40,184,900,- amounting to IDR 12,104,738,- or 43% .

Table. 8 BEP and Sales of Sausage Fillings 2023-2024 "MSME Cireng Lava Gisting"

Mont h	2023				2024			
	Unit	Sale	Total cost	Profit and loss	Unit	Sale	Total cost	Profit and loss
1	360	3.600.000	11.485.560	7.885.560	493	4.930.000	12.452.603	.522.603
2	723	7.230.000	14.124.933	6.894.933	1.005	10.050.00	16.175.355	.125.355
3	1.09	10.950.000	16.829.745	5.879.745	1.540	15.400.00	20.065.340	.665.340
4	1.48	14.830.000	19.650.893	4.820.893	2.090	20.900.00	24.064.390	.164.390
5	1.88	18.880.000	22.595.648	3.715.648	2.653	26.530.00	28.157.963	.627.963
6	2.31	23.100.000	25.664.010	2.564.010	3.233	32.330.00	32.375.143	- 45.143
BEP	2.74	27.480.000	28.848.708	1.368.708	3.249	32.490.00	32.490.000	-
7	3.18	31.880.000	32.047.948	167.948	3.829	38.290.00	36.708.659	1.581.34
BEP	3.24	32.490.000	32.490.000	-	4.421	44.210.00	41.013.091	3.196.90
9	3.63	36.390.000	35.327.169	1.062.831	5.010	50.100.00	45.295.710	4.804.29
12	5.04	50.490.000	45.578.438	4.911.562	6.772	67.720.00	58.106.832	9.613.91

Source: Processed data

Sausage-filled products in 2023 BEP was only reached in the 8th month, total sales were Rp. 50,490.00,- with total costs of Rp. 45,578,438,- so that the profit was Rp. 4,911,562,- and in 2024 there was an acceleration in achieving the BEP level which occurred at the beginning of the 7th where total sales in 2024 experienced an increase of 34% from IDR 50,490,000,- increased by IDR 67,720,000,- so that profit also increased by 96% from IDR 4,11,562,- to IDR 9,613,917,

3.2 Discussion

Variable costs influence the BEP in each type of production, the lowest variable costs for gizzard/intestine contents of IDR 4,956 will be faster to reach the BEP level, namely when producing 1,758 units and the greater the variable costs, the greater the BEP level achieved for the product, namely variable costs IDR 5,681, BEP 2,053, variable costs IDR. 6,096 BEP 2,272, and variable costs Rp. 7,271 BEP of 3,249. The greater the difference in variable costs will result in a greater change in the number of production units to reach the BEP point. A change in variable costs from 4,956 to 5,681 by 15% will result in a change in the BEP point level from 1,758 to 2,053 by 17%, or an increase of 1.15 times; variable costs from 5,691 to 6,096 amounted to 7% and the BEP point from 2.53 to 2,272 with a change of 11% had an effect on an increase of 1.46 times, and then variable costs from Rp. So it can be said that the greater the change in variable costs, the influence on the size of the BEP point and will influence the speed of change. In the BEP in rupiah it is also clear that when the variable costs are the smallest, the BEP level of total costs and sales proceeds is IDR 17,580,000,- increasing according to the size of the variable costs IDR 20,530,000,- IDR 22,710,000,- to the highest at sales of IDR 32,490,000,- where a 15% increase in costs will increase sales by 17%, or 1.15x, and when variable costs increased by 19%, the BEP level on sales increased to 43% or 2.23x. With variable costs of IDR 5,681,- where BEP is 2,053 units of shredded chicken filling in 2023 at the beginning of the 3rd month; total cost Rp. 20,500,000,- sales Rp. 20,530,000,- in 2024 BEP in the first month, in terms of variable costs and the amount of BEP in second place, but BEP achievement is in first place, profit in 2023 will be IDR. 63,989,211,- in 2024 Rp. 106,561,594,- The Cireng product filled with shredded chicken is the fastest product to achieve BEP as well as the product that produces the largest profit compared to other types of products. Cireng products containing BEP meatballs in 2023 in the middle of the 5th month amounted to 2,271 units, in 2024 in the 4th month, profits in 2023 were IDR 13,224,865,- in 2024 IDR 21,121,346,- there was an increase of IDR 7,896,481,- or 60% due to the acceleration of the Break Even Point achievement. For Intestinal Gizzards, in 2023 BEP at the end of the third month is 1,758 total costs = sales of IDR 17,580,000,- in 2024 at the beginning of the third month, total sales in 2024 compared to 2023 have increased by 33% (1,450 units), profits have increased by IDR 12,104,738,- or 43%. In 2023, BEP sausage content was 5,049 in the 8th month, in 2024 at the beginning of the 7th month, total sales in 2024 experienced an increase of 34% from IDR 50,490,000,- up IDR 67,720,000,- there was a 96% increase in profit from IDR 4,11,562,- to IDR 9,613,917,-

This study analyzes the Break Even Point (BEP) levels of MSME Cireng Lava Gisting, both in terms of production units and nominal (rupiah) value. Distinguishing between unit BEP and nominal BEP is crucial because each provides different managerial insights for decision-making. Unit BEP refers to the minimum number of products that must be sold to cover both fixed and variable costs. For example, cireng with shredded chicken filling reaches BEP at 2,053 units, while sausage-filled cireng requires 3,249 units to break even. On the other hand, BEP in nominal terms indicates the minimum revenue required to avoid losses. The BEP in rupiah for shredded chicken is Rp 20,530,000, while sausage filling requires Rp 32,490,000.

This distinction is meaningful. Unit BEP assists business owners in setting production targets and managing inventory, while nominal BEP is more relevant to revenue planning and pricing strategies. Managers can align their business activities depending on which measure is more critical in a given situation—whether it's ensuring production efficiency or meeting sales targets in rupiah.

The findings also show that profits are highly sensitive to changes in variable costs and selling prices. An increase in variable costs causes a significant rise in BEP. For instance, variable costs rising from Rp 4,956 (gizzard filling) to Rp 7,271 (sausage

filling) increases the BEP unit from 1,758 to 3,249 units. This reflects a substantial increase in the number of sales required to reach profitability.

Selling price volatility also impacts profit margins. Although this study assumes a constant selling price of Rp 10,000 per unit, in real-world situations, MSMEs often face changes due to competition, inflation, or shifts in consumer demand. Therefore, relying solely on historical data may not provide enough flexibility for dynamic market conditions. To address this, MSMEs should regularly conduct sensitivity analysis. For example, they can simulate what happens to BEP if raw material costs increase by 10%, or assess the profit impact if the selling price needs to be lowered. These simulations help anticipate risks and prepare more effective pricing or cost-control strategies.

The managerial implications of these findings are significant. First, MSMEs should routinely monitor both unit and nominal BEP to maintain financial awareness. Second, they must be ready to recalculate BEP when cost components or market conditions change. Third, conducting sensitivity analysis will help in making proactive decisions amid uncertainty. Lastly, prioritizing products with lower variable costs and faster BEP achievement—such as shredded chicken *cireng*—can help maintain healthy cash flow and improve profit stability. By understanding the differences between unit and nominal BEP, and by anticipating cost and price changes, MSMEs like *Cireng Lava Gisting* can make smarter, data-driven decisions to ensure business resilience and profitability—even in volatile markets.

4. CONCLUSION

This study concludes that the Break Even Point (BEP) analysis is a valuable tool for financial planning in MSMEs, particularly in determining the minimum number of units and the nominal sales required to avoid losses and achieve profits. The analysis of *Cireng Lava Gisting* shows that products with lower variable costs, such as shredded chicken *cireng*, reach BEP more quickly and generate higher profits compared to other variants like sausage-filled *cireng*, which have higher BEP thresholds.

The findings confirm that both unit-based and nominal BEP levels play essential roles in operational and financial decision-making. Understanding these two perspectives allows MSME managers to better plan production, pricing, and promotional efforts. Moreover, the study highlights that cost structure—especially variable costs—has a significant impact on profitability, reinforcing the need for efficient cost control.

However, this study has several limitations. The analysis is conducted under single-scenario assumptions, with fixed selling prices and stable cost inputs throughout the year. It does not account for potential fluctuations in raw material prices, seasonal variations in consumer demand, or the effects of promotional campaigns over time. As such, the results may not fully reflect the financial dynamics experienced in real market conditions, especially in volatile or competitive environments.

To address these limitations, future studies should consider multi-scenario simulations to assess how different pricing strategies, cost changes, or market responses affect the BEP and profit margins. For example, by modeling seasonal variations in sales—such as increased demand during holidays or reduced sales during fasting months—researchers can offer more realistic and flexible planning tools. Additionally, scenario analysis involving promotional expenditures, online vs. offline sales channels, or varying production scales would provide a deeper understanding of profit planning strategies for MSMEs.

In conclusion, while this study provides a foundational understanding of BEP and cost-profit relationships in the context of a culinary MSME, it also opens the door for more comprehensive and adaptive financial modeling. With future research incorporating dynamic, multi-scenario planning, MSMEs can enhance their resilience, accuracy in financial forecasting, and competitiveness in changing market environments.

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