

## Break Even Point Analysis As A Tool For Msmes Profit Planning In Sumber Jaya Sub - Distric, Bengkulu City

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### **Article History:**

Received: 22 September 2023

Revised: 13 Oktober 2023

Accepted: 30 November 2023

**Keywords:** MSMEs, Break Even Point, Profit Planing

**Abstract:** MSMEs in the Sumber Jaya sub-district generally micro-enterprises engaged in the fisheries sector, and a small proportion in the trade sector. In managing a business, generally MSMEs actors do not have knowledge of how to develop a business, increase sales and increase profits or profits, they only rely on intuition and technical knowledge from generation to generation. MSMEs actors only see that their businesses are running normally, but actually do not experience development. This can be seen from the quantity of sales and the number of workers that have not increased. Based on these conditions, there is a need for basic training related to profit planning from the businesses they manage. With the knowledge of profit planning, micro business actors in Sumber Jaya village are expected to develop their businesses.

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## INTRODUCTION

As one of the sources of economic strength of the country, existence MSMEs is a major contributor to Gross Domestic Product and plays a role Important in Absorb Labour. UMKM absorbing about 97% Indonesian workforce (Ministry of Cooperatives, 2021). The number of MSMEs in Indonesia continues add and Increased Annually. This increase occurs because MSMEs need capital that is not too large to build a business, are able to adapt to market conditions that continue to change, and get easier legal procedures compared to large companies (Ministry of Cooperatives, 2021).

According to BPJS 2019 data, more than 95% are micro and small enterprises from the number of existing MSMEs. Micro and small enterprises are classified as business scales that are difficult to develop because they do not achieve an economical business scale. Business forms are generally individual and most businesses are managed behind closed doors, as well as inadequate business legality and institutional administration.

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In running their business, MSMEs often facing obstacles, such as his abilities to survive, grow and develop. These obstacles are caused by MSME governance in Indonesia still done in a timely manner. tradisional, characterized by prioritizing relationships family of relationship professional (Desiyanti, 2016). Another of the most basic obstacles is the problem of human resource quality, generally MSME actors rely more on instinct than data and information in running their business and making decisions. This condition, of course, results in undirected and unprofessional business management.

MSMEs in Sumber Jaya sub-district, generally in the form of micro-enterprises engaged in the fisheries sector, and a small part in the trade sector. According to Wulandari et al (2020), generally dried fish craftsmen in Sumber Jaya village have elementary and junior high school education. This means that the business carried out is only armed with technical knowledge related to fish processing obtained from generation to generation. They only see that their business is running normally, but in fact it is not progressing. This can be seen from the quantity of sales that do not increase, the number of workers that does not increase. Generally, business actors do not have knowledge how to develop a business, increase sales and increase profits or profits. Based on these conditions, there is a need for fundamental training related to profit planning from the business they manage. With knowledge about profit planning, micro business actors in Sumber Jaya village are expected to develop their business and the better the development of a business, the better the performance of the business.

## **LITERATUR REVIEW**

### **Profit Planning**

One of the goals of MSMEs is to get maximum profit, for that MSMEs need to Prepare profit planning so that all resources in the company can be directed in an organized and controlled manner. Planning is a series of actions to achieve a desired result. Basically, planning is a management function related to the selection of various alternative actions and policy formulation. A plan can be realized if management is successful in running the company as measured by the amount of profit.

Profit planning is often referred to as operating and financial budgets. According to Baldrick et al (2013) budget is a quantitative expression of a plan expressed in physical or financial units or both. Budgeting is a method of translating organizational goals and strategies into operational form. More concisely according to Laela, et al (2016: 175) Budget is a formal form of planning written quantitatively. On the contrary, more fully and in detail revealed by Munandar (2017) the budget is a plan that is prepared systematically, which includes all company activities, which are expressed in financial units (monetary units), and are valid for a certain time in the future.

The benefits of budget or profit planning are:

1. Provide a directed approach in problem solving.
2. Early conduct a review of the problems faced
3. Directing the organization to the achievement of profits
4. Encourage conscious behavior towards cost savings and maximum resource utilization.
5. Direct the use of capital and efforts to profitable activities.
6. Acts as a standard for measuring activities

Likewise, Munandar (2017) explained that a *nggaran* is very useful in an organization, because it can be used as a work guideline, work coordination tool and work supervision.

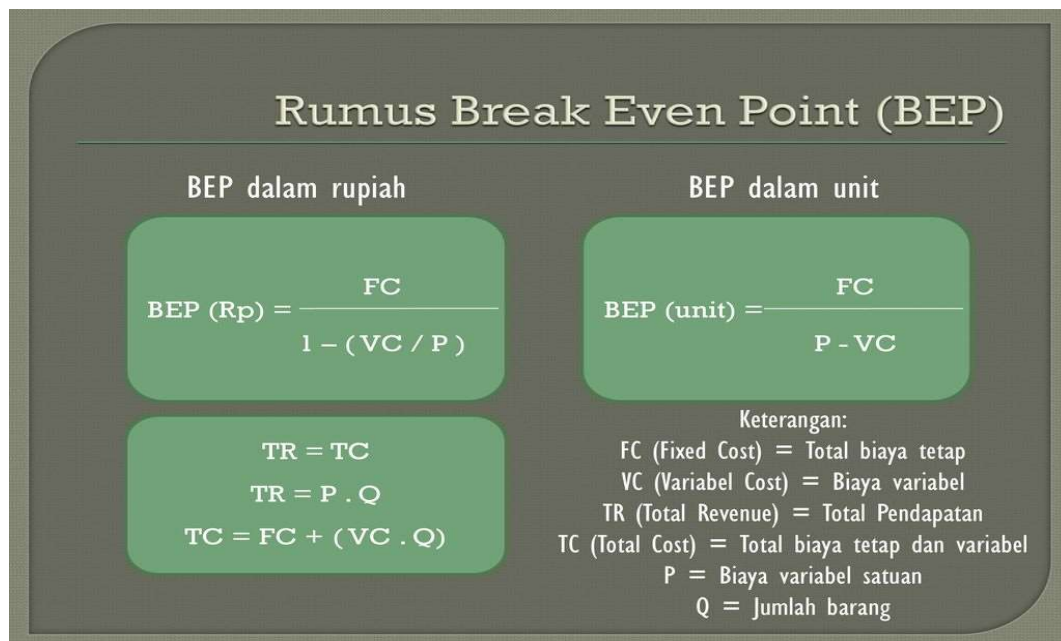
### ***Break Even Point (BEP)***

*Break Even Point* is a condition in which the sum of all income is equivalent to the sum of all expenses in each production of services or goods. In other words, a condition where the business does not experience profits and does not experience losses. At that time, the company's sales rate was not high enough to make a profit but not low enough to incur losses. MSME actors can use break-even analysis to provide information in decision making. MSME players know how much they have to sell to cover all production costs. Furthermore, when they set a profit target, they can enter it to calculate the sales volume target. MSME players can use this information to design marketing strategies, where management uses break-even volume as a minimum sales target, and when sales are above the minimum point, it can increase profits or profits.

Shiem and Siegel (2000) explain that BEP analysis is very useful in business, because it can help clarify some of the following questions:

1. What sales volume is needed to break even
2. What sales volume is needed to obtain the desired level of profit.
3. How much profit can be achieved with a certain sales volume
4. How changes in selling prices, variable costs, fixed costs, and volume affect profits
5. How changes in product combinations sold affect break-even points, revenue volume targets, and potential laba

There are several things that must be understood before determining BEP (Garrison & Noreen, 2013), namely understanding cost behavior, namely how costs respond to changes in business activities. Fixed costs are costs that don't change when activities change, and variable costs are costs that change when activities change. The formula for determining BEP can refer to the following figure:



## PURPOSE AND BENEFITS OF THE ACTIVITY

The purpose of this service activity is to provide knowledge and skills to MSME actors in Sumber Jaya Village, Bengkulu City. The detailed objectives of this activity are as follows:

1. The target audience is able to identify fixed costs, and variable costs
2. The target audience is capable of calculating the impas point
3. The target audience is able to analyze break-even results related to profit planning.

The benefits of this activity are increasing the knowledge, insight and skills of the target group in analyzing the break-even point as a basis of reference for determining the level of sales and cost control in the context of preparing profit planning (budget).

## IMPLEMENTATION METHOD

The method applied to achieve the objectives of community service activities is carried out with several stages of activities and evaluation. The stages are:

1. Pre-test. The first step of this activity is to pre-test participants to measure the extent to which participants understand costs.
2. Lectures and technical guidance. At this stage, participants are given material on the concept of cost, the concept of break even point and calculating and analyzing break even point.
3. Discussion. This stage is a discussion of the obstacles faced by participants related to profit planning for each MSME actor.
4. Conduct a post test, to measure the level of understanding of participants after the training.

The evaluation design carried out at each stage is as shown in table 1 below:

**Table 1: Evaluation Design**

Activities	Purpose	Evaluation Criteria	Indicator
<b>Pre-test</b>	Know the basic understanding of the cost concept	All participants take the Pre-test	Amount questions answered correctly
<b>Lectures:</b> Explore the understanding of profit planning from each MSME actor	Provide knowledge and insight into cost concepts, and BEP analysis to support profit planning	<ul style="list-style-type: none"> <li>• Amount participants present at the training</li> <li>• Participants who ask and answer</li> </ul>	80% of participants can understand the concept of cost and BEP analysis
<b>Training</b> Target groups practice cost identification and BEP analysis	Participants can identify fixed costs, variations and analyze BEP	<ul style="list-style-type: none"> <li>• Amount Participants participating in the training</li> <li>• The enthusiasm of participants who asked questions</li> </ul>	80% of participants can determine the break-even point
<b>Discussion</b> The problems they face profit planning	There is a solution or problem solving of the obstacles faced	Amount constraints or problems	Amount solutions or workarounds

## RESULTS AND DISCUSSION

This activity was held at the Sumber Jaya sub-district office hall in Bengkulu City on June 13, 2023 which was attended by sub-districts, village heads, local RT leaders and MSME actors. There were 30 people invited, but 15 people were invited who were generally micro businesses, engaged in fishing, dried fish production and kemlang cracker business. Details of participants can be seen in table 2 below:

**Table 2: Business Fields**

<b>Business field</b>	<b>Sum</b>
Fish Catch	10 People
Dried fish production	4 Persons
Kemlang crackers	1 Person
Sum	15 People

The main purpose of this activity is to provide training on how target audiences can plan future profits or profits through understanding and calculating break-even points (*break even point*). Because this service activity is a collaboration with Kelantan University Malaysia and University Malaysia Terengganu, the target audience also gained insight into the development of MSMEs on the coast of Malayasia. Thus the activity is divided into two sessions as follows:

### **First session: Development of MSMEs in Coastal Malaysia**

Delivery of material on the description of fishing business by fishermen in the Malaysian land sea. The development of fish catches in the country underwent several phases:

1. The First: they are coastal fishermen who use ordinary boats in several zones (A, B, and C). Fish catches are canoes, fishing rods and bubu, and only a small part use trawls. Marketing is carried out alone in the area around the fishing village.
2. The Second phase: Become a boss. They are currently raising capital to purchase an inland sea production unit. The first phase with the second phase takes about 10 to 20 years to go through the transition process. Fishing gear has started using more sophisticated vessels and fishing gear. Marketing already using third parties (touke)

3. The third phase: as an entrepreneur. They began to establish relationships with fishing communities, authorities, the East Coast Fisheries Entrepreneurs Union (PELAUD), business partners, land workers and seafarers.
4. The Fourth phase: This is the final phase of evolution where they transform into fisheries. At this time Juragan became the manager of a fishing company and no longer went to sea.

In addition to the transformation of fishermen's development, fishermen's work behavior was also conveyed based on research results. In general, they have hedonism and nature value behaviors. The value of hedonism is that they think that working as fishermen is a fun job, can chat, talk and joke with fellow fishermen, so the work as fishermen that they feel is an entertaining job. While the value of nature is that they believe that work as fishermen needs to depend on God, is a noble job, has the value of worship, and is always at peace with fate.

### Session Two: Training on breaking even

This session consists of the following activities:

#### 1) Pre-test

All participants took the pre-test. This aims to find out how the target audience understands about the profit / profit distribution monthly, semesterly and yearly. Questions in the form of multiple choice. Participants were distributed question papers and stationery, and gave participants time to answer the question by choosing one of the four available answers. The results of the Pre-test are as follows:

**Table 3 Pre-test Results**

Question	Participant answers with correct answers		Participant's answer with wrong answer	
	Sum	%	Sum	%
1	1	6%	14	94%
2	1	6%	14	94%
3	0	0%	15	100%
4	1	6%	14	94%
5	0	0%	13	94%

Based on table 3 above, the average participant answered incorrectly for all questions. This illustrates that the participants are still very unfamiliar with the understanding of profit planning and the main return point in determining the sales volume of the products they produce.

## 2) Material Provision and Discussion Stage.

At this stage the material is delivered with a lecture and discussion approach. The material provided is related to the importance of planning profits, because profits are very sensitive to changes in stalk, changes in costs, and changes in prices. Therefore, MSME players need to understand a tool in profit planning, namely Break Even Point (BEP) analysis. With BEP, information can be obtained about the picture of the lower limit of income that must be achieved so that in the coming fiscal year, MSMEs will not experience losses. MSME players can use this information to design marketing strategies, where management uses break-even volume as a minimum sales target, and when sales are above the minimum point, it can increase profits or profits.

The initial stage delivered to understand BEP is to explain the concept of costs related to production activities / business activities. Such costs consist of fixed costs and variable costs. Therefore, MSMEs must be able to group which fixed costs (*fixed cost*) and where are variable costs (*variable cost*). Fixed costs are costs whose amount remains relatively constant over a certain period. Examples of grouping fixed costs are: Boat rental, warehouse rent, salary, loan interest, office costs and others. While variable costs are costs that vary according to the volume of activities or production. Examples of variable costs are: direct raw material costs, direct labor costs, and sales commission costs. In this session, participants are given a deep understanding of cost changes both in total and in units. The behavior of fixed costs in total does not change, while in units it changes. Conversely, the behavior of variable costs in total changes, but in units is constant or fixed. To the participants, examples of changes in these costs were shown as follows:

Table 4 Fixed costs and variable costs per unit

Producti on (unit)	B. Fixed (IDR)	B Variable (IDR)	B fixed / unit (Rp)	B Var/unit (IDR)
100	100 000	50 000	1000	500
200	100 000	100 000	500	500
300	100 000	150 000	333	500
500	100 000	250 000	200	500
1000	100 000	500 000	100	500

From the table it can be seen that the more production or sales, the fixed costs per unit of product will be smaller, on the contrary, the variable costs per unit will remain the same per unit.



After participants understand the classification and changes to the two costs. Furthermore, the participants were given material about *break even point* (BEP). Furthermore, the participants were introduced to how to calculate BEP using the following example:

During 2022, ABC MSMEs sold 100,000 units of products at a price of IDR 20,000.00 / unit. The variable/unit cost is IDR 14,000.00 and the fixed cost is IDR 79,200,000.00.

$$\text{BEP unit} = \frac{FC}{P - VC} = \frac{79.200.000}{20.000 - 14.000} = 13.000 \text{ unit}$$

$$\text{BEP Rp} = \frac{FC}{1 - \frac{VC}{P}} = \frac{79.200.000}{1 - \frac{14.000}{20.000}} = \text{Rp } 264.000.000,-$$

This means that MSMEs are in a position of no profit and no loss if sales are 13 units, or if sales are worth IDR 264,000,000,-.

In addition to the calculation example, other simulations were also conveyed, namely if the quantities sold are less and more than 13,000 units, and if the unit price changes from IDR 20,000, - how does the breakeven point change.

The discussion was opened after the presentation of the material was carried out. The participants were very enthusiastic about this topic, because they came to know that the benefits of BEP analysis include MSMEs being able to determine production capacity in order to achieve profits, MSMEs being able to make efficiency, and being the basis for decision making. They said that so far they have only relied on intuition in running their business. They only know all expenses are costs, without knowing the classification of these costs. Their ignorance of what constitutes variable costs and what is included in fixed costs, causes the costs incurred cannot be useful information both in planning and in making operational decisions of their business. They only make notes related to the realization of income and expenses to determine profits.

### 3) Technical Guidance Phase

At this stage, participants practice compiling to determine the break-even point of each of their efforts. Participants are directed to follow these steps:

- a. Classify the fixed costs and variable costs of the business they run
- b. Calculate total fixed costs per year and variable costs per unit
- c. Determine the selling price per unit
- d. Determine the break-even point

These steps were carried out by each participant who was guided directly by the community service team and several students involved in this service activity. From the results of the observations made, generally they are constrained in classifying the category of fixed costs and the category of variable costs. With the direction and guidance of the community service team, the difficulties faced by participants can be resolved properly. Based on the results of their break-even calculations, participants were directed to analyze the suitability of prices, increases or decreases in production. Thus the participants will be assisted in determining better results or choices based on accurate data.

#### 4) Post-test

This stage is carried out to evaluate the participants' understanding of the process of activities carried out. The following table is a comparison of Pre-test and Post-test results:

**Table 5 Number of participants with correct answers on Pre-test and Post-test.**

Question	Pre-test	Post-test
1	1	15
2	1	13
3	0	10
4	1	12
5	0	15

Based on table 5.4 above, it is known that after obtaining material and discussion and training to determine fixed costs, variable costs, and determine the break-even point, participants gain significant understanding. Almost all participants who took the Post-test were able to answer the questions correctly.

## CONCLUSIONS AND RECOMMENDATION

### Conclusions

Community Service activities carried out in Sumber Jaya sub-district are related to decisive training *break even point* as a tool in preparing MSME profit planning, it can be said to be successful. Success indicators can be seen from the results of the pre-test and post-test that have been carried out. The scores obtained at the time of the post-test were significantly better than the pre-test scores. Other indicators can be measured from the enthusiasm of participants in attending the training and provide questions and statements related to determining costs classified into fixed costs and variable costs.

Overall, it can be concluded that this activity benefits the target audience, namely:

1. MSME actors understand that cost information is indispensable in planning, controlling, and making decisions.
2. MSME actors can identify and classify fixed costs and variable costs from their business operational costs.
3. MSME actors can determine the break-even point (BEP) related to their business
4. MSME actors can analyze the value of BEP both in quantity and value.
5. In addition to the four things above, MSME players also gain insight related to the development of MSMEs in coastal areas of Malaysia. With this insight, it is hoped that MSME actors in Sumber Jaya sub-district will have high motivation to become successful entrepreneurs in the field of marine products.

### Recommendation

There are no significant obstacles in this activity, it's just that MSME actors want sustainability in the form of assistance related to profit planning. Thus this activity needs to be followed up in the form of mentoring.

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