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An Analysis of Financial Feasibility on the Batik Tulis Lasem "SR"

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ABSTRACT

Batik Tulis Lasem is one of the Micro, Small and Medium Enterprises (MSMEs) in Indonesia. This study aims to determine whether the investment in additional capital for Batik Tulis Lasem Sumber Rejeki (SR) is feasible to run. The research method used in this study uses quantitative methods using numbers determined based on the feasibility of a business with non-discounted techniques, namely Payback Period (PP), Break Even Point (BEP) and non-discounted techniques using the Net Present Value (NPV) technique, Internal Rate of Return (IRR). The data sources used in this study are primary and secondary data sources. The results showed that the results of testing using the BEP, PP, NPV and IRR methods in accordance with the business feasibility criteria, the Batik Tulis Lasem "SR" were eligible to be taken by means of credit through the banking system.

1. Introduction

Batik Tulis Lasem is one of the Micro, Small and Medium Enterprises (MSMEs) in Indonesia. One of the Batik Tulis Lasem producers is the Batik Tulis Lasem Sumber Rejeki (SR) which is led by Mrs. Sri Winarti. In addition to being the owner of Batik Tulis Lasem SR, she is also the chairman of the Sarwo Endah Joint Business Group. Based on an interview with Mrs. Sri Winarti, this MSMEs has been established since ten years ago. Armed with long experience and the owner saw the great potential of the batik business he had started, the owner had problems related to how to increase his production capacity. Meanwhile, the capital owned by the owner is only limited. MSMEs owners need financing from banks to increase capital as additional investment.

The experience of inadequate financing for MSMEs owners has made MSMEs owners think carefully about this financing. Investment is divided into 4 groups, namely replacement investment, additional capacity investment, investment in adding new products, and other investments. [3]. The investment that is planned to be carried out by MSMEs is a type of investment in adding capacity. To increase their production capacity, these MSMEs require investment for the purchase of fixed assets and additional work capital in the form of purchasing raw materials, wages (labor costs), and factory overhead costs (BOP). The investment that will be carried out, of course, must go through careful thinking so that the investment that is made will not be wrong in making decisions. In fact, to assess the feasibility of an investment, an analysis is needed using both discount and non-discounted methods [4]. This non-discounted method uses the Payback Period (PP) and Average Rate of Return (ARR) investment feasibility model. Meanwhile, this discount method uses the feasibility model of Internal Rate of Return (IRR) and Net Present Value (NPV). This feasibility method can use the Break Even Point (BEP) method [5].

Research on business feasibility analysis has been done a lot, both using the Break Even Point (BEP) indicator [6] [7], and using the Net Present Value (NPV) and Internal Rate of Return (IRR) techniques [8]. There are also those who use the NPV, PP, and IRR methods [9] [10] [11] [12] [13] [14].

Based on several previous studies, this study uses Break Even Point (BEP), Payback Period (PP), Internal Rate of Return (IRR) and Net Present Value (NPV) indicators to analyze financial feasibility. Based on the above background, the title raised in this study is AN ANALYSIS OF FINANCIAL FEASIBILITY ON THE BATIK TULIS LASEM "SR"

The formulation of the problem in this study is "Is the additional investment capital required by the BATIK TULIS LASEM "SR" (Sumber Rejeki) MSMEs feasible to run?". While the purpose of this study is to analyze whether the BATIK TULIS LASEM "SR" (Sumber Rejeki) MSMEs is feasible to take additional investment capital to increase its production capacity.

2. Method

2.1 The Type of Research and Data

This type of research is quantitative research. The quantitative approach is an approach where this study uses numbers to analyze data [15]. While the data sources used in this study are primary data sources and secondary data sources. This primary data source was obtained by conducting interviews with business owners, namely the Batik Tulis Lasem SR business owner, while secondary data sources were obtained from literature sourced from books, journals and the internet.

2.2 The Object of Research

The object of this research was carried out at Batik Tulis Lasem Sumber Rejeki (SR) with the owner, Mrs. Sri Winarti. The research was conducted at the Batik Tulis Lasem center in Lasem City, Rembang Regency, Central Java.

2.3 Research Stage

The steps can be seen in Fig 1.

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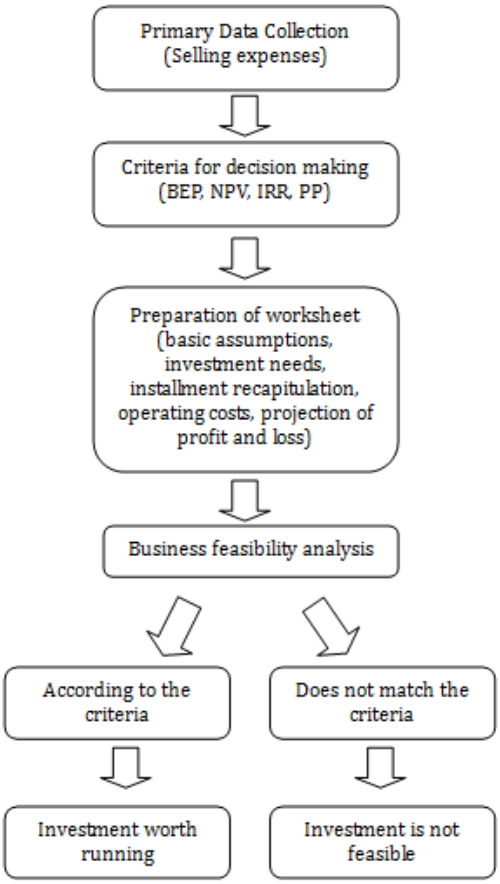

Fig 1. Research Stage

The steps taken can be explained as follows:

1. Primary data collection, namely by collecting data on sales costs.
2. Determine the criteria for decision making, namely in this study using several criteria such as: BEP, NPV, IRR, and PP.
3. Compiling worksheets: making basic assumptions, analyzing needs, determining investment, making installment recapitulations, calculating operational costs, making projections of profit and loss.
4. Business Feasibility Analysis: which is to analyze whether a business is in accordance with the criteria or not. If it is in accordance with the criteria, the investment is feasible to run, and if on the contrary, the investment is not feasible to run.

2.4 The Feasibility Analysis

The business feasibility analysis in this research uses discount and non-discounted analysis techniques. The non-discounted analysis technique uses the Payback Period (PP) while the discount technique uses the Net Present Value (NPV) and the Internal Rate of Return (IRR). The following is an explanation of each technique.

a. Payback Period (PP)

Payback Period is a business feasibility analysis technique where a business is feasible by seeing how long it takes an investment so that the investment can be covered [4]. The formulas used in this analysis are:

1) Calculate cash outflows
2) Calculate in what year the investment that has been invested will return on investment.

The criteria used to conclude if the investment is feasible to run is if the value of the Payback Period is less than the maximum period that can be accepted.

b. Net Present Value (NPV)

Net Present Value (NPV) is an investment decision-making technique in which an investment is feasible by looking at the present value of cash inflows and the present value of cash outflows compared. The following is the formula used to calculate NPV:

$$NPV = \frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \ldots\ldots\frac{CF_n}{(1+k)^n} \quad (1)$$

Note :
NPV = Net Present Value
CF = Cash Flow
k = Diskonto
n = Period

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The criteria for acceptance of this NPV method is if the NPV value is positive, then the business that will be carried out is worthy of acceptance. Vice versa.

c. Internal Rate of Return (IRR)

Internal Rate of Return (IRR) is the criteria for determining the feasibility of a business to be carried out by an entrepreneur with a discount rate that equates the present value of the expected cash flow (CF) with the initial cash outflow (ICO) [4]. Here's the formula for calculating the Internal Rate of Return (IRR):

$$ICO = \frac{CF_1}{(1+IRR)^1} + \frac{CF_2}{(1+IRR)^2} + ... + \frac{CF_n}{(1+IRR)^n} \quad (2)$$

Note :
ICO = Initial Cash Flow
CF = Cash Flow
IRR = Diskonto
N = Period

Determining IRR involves a trial and error procedure. The trial and error referred to is to determine discounted interpolation to obtain the appropriate IRR value. The acceptance criterion for this IRR method is to compare the IRR value with the requested rate of return. If the IRR value is greater than the requested yield value, this business is feasible to run. Vice versa.

d. Break Even Point (BEP)

Break Even Point (BEP) is by seeing how many products can be sold so that MSMEs do not experience profits or losses in other words, get a profit equal to Rp. 0 [16]. The following is the formula used to calculate BEP:

$$Q\_BE = FC/((P - V)) \quad (3)$$

Note :
Q_BE = Quantity
FC = Fixed Cost
P = Price
V = Variable Cost

The criteria for acceptance of the BEP method is the minimum quantity that must be produced every time you produce goods in order to obtain maximum profit.

3. The Result

The investment costs required by the Batik Lasem Sumber Rejeki MSMEs are based on the results of interviews with the owner as follows:

TABLE 1.
THE INVESTMENT REQUIREMENT

Type	Source of Funds		Value
	Credit (70%)	Owner's Equity (30%)	
Fixed Assets	Rp225,948,800	Rp96,835,200	Rp322,784,000
Working Capital	Rp84,798,148	Rp36,342,064	Rp121,140,212
Total	Rp310,746,948	Rp133,177,264	Rp443,924,212

Based on table 1 above, the investment requirement for MSMEs to conduct financing through banking is IDR 310,746,948. Based on the recapitulation of investment needs above, table 2 of the installment recapitulation can be made as follows:

TABLE 2.
THE INSTALLMENT RECAPITULATION

Year	Instalment Payment	Balance	
		Beginning	Ending
0	-	Rp310,746,948	Rp310,746,948
1	Rp137,807,640	Rp310,746,948	Rp207,164,632
2	Rp124,341,939	Rp207,164,632	Rp103,582,316
3	Rp110,876,238	Rp103,582,316	Rp-

The results of the feasibility of investing in additional capital when viewed from the BEP method can be seen in table 3

TABLE 3.
BREAK EVEN POINT (BEP)

No	Product	BEP	
		Unit	Rp
1	Batik 1 Color		
	Katun Prima	103	Rp15,725,246
	Katun Primisima Refined	69	Rp60,919,729
2	Batik 2 Color		
	Katun Prima	69	Rp17,443,808
	Katun Primisima Refined	69	Rp54,227,139
3	Batik 3 Color		
	Katun Prima	69	Rp25,740,731
	Katun Primisima Refined	69	Rp98,942,466
	Katun Primisima Super Refined	69	Rp44,617,267
	Total	515	Rp317,616,386

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The summary of the business feasibility analysis can be seen in table 4

TABLE 4.
THE BUSINESS FEASIBILITY ANALYSIS

No	Criteria	Value	Result
1	Net Present Value (NPV)	1,078,149,425	Accepted investment
2	Internal Rate of Return (IRR)	176.0942	Accepted investment
3	Payback Period (PP)	0.406	Accepted investment

4. Discussion

The investment needs of MSMEs are divided into two investments, namely investment in the form of fixed assets and investment in the form of working capital. Of the two investment requirements, a business feasibility analysis was carried out using the BEP, NPV, IRR and PP methods.

The results of the calculations in table 3, namely the determination of BEP for MSMEs in year 1 when MSMEs invested in additional capital must be able to sell at least 515 units of batik with a sales value of Rp. 317,616,386. It is during this minimum sale that MSMEs experiences BEP. It is at this point that MSMEs experiences neither profit nor loss. To determine whether or not this financing is feasible, MSMEs is expected to be able to sell more than 515 units each year.

Based on the results of the business feasibility analysis in table 4 above, the NPV value is 1,078,149,425. From the positive value of the NPV, the investment submitted to the bank is feasible to take. Batik Tulis Lasem Sumber Rejeki (SR) should take credit through banks.

The results of further business feasibility analysis use the Internal Rate of Return (IRR) method. Based on table 4 above, the IRR value is 176, 0942. Even though the yield value requested by banks is 13%. Thus, the IRR value is higher than the requested yield by banks, so the investment that will be made by Batik Tulis Lasem SR is feasible to run.

Business feasibility analysis using the Payback Period (PP) method can be seen in table 4. Based on table 4 above, the PP value is 0.406. If quantified into months, for 4.9 month the investment invested in MSMEs will return on investment. Meanwhile, the credit proposed by MSMEs through this financing is for three years. Based on the criteria for determining the feasibility of a business using this PP method, if the PP value is less than the length of the credit terms, the investment is feasible to run the business. From the feasibility criteria of a business using the BEP, NPV, IRR and PP methods above, it suggests that investment decisions are accepted.

5. Conclusion

The conclusion that can be drawn from the results of this study is: additional capital for Batik Tulis Lasem Sumber Rejeki is feasible to run by taking credit through bank debt. While the suggestions that we can give for future research are adding the criteria for business feasibility analysis with the Benefit Cost of Ratio method, the object of research is to use other MSMEs fields.

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