Financial Analysis and Feasibility of Micro Business Development Sector Industry Tanjung Morawa District Deli Serdang

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Abstract: Micro, Small, Medium Enterprises (MSMEs) has an important and strategic role on national economic development. The main role of MSMEs is to increase economic growth and labor absorption as well as the place where economic output will be distributed. In 1997-1998, MSMEs was able to survive in the middle of economic crisis and moreover the number of MSMEs was increasing rapidly after the year. The internal MSMEs' obstacle to develop is capital. Evaluating the financial feasibility can be done by using analysis based on Net Present Value (NPV), IRR, and Payback period. In this case, the college which has the capacity of knowledge and the depth of study in managing the bankable and feasible enterprise can be MSMEs guider to undertake their business. This research study is about financial analysis of micro enterprise in industrial sector in sub-district Tanjung Morawa, Deli Serdang. The research area is chosen as it is near from Medan as well as one of industrial center in Sumatera Utara. The result of the research shows that micro enterprises in sub-district Tanjung Morawa are difficult to get additional capital so their business is not able to develop maximally. According to financial analysis, it is found that generally micro enterprises in sub-district Tanjung Morawa are feasible to be developed.

1 INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) have an important and strategic role in national economic development. The role of MSMEs is primarily to increase economic growth and absorb employment as well as a forum for the distribution of development outcomes. When the economic crisis occurred in the period 1997-1998, MSMEs proved to be able to survive even increased rapidly after the crisis. Data from the Badan Pusat Statistik (BPS) shows that after the crisis the MSMEs were able to absorb 85 million to 107 million workers until 2012. The 2012 data shows that the number of entrepreneurs in Indonesia was 56,539,560 units. Of these, the number of MSMEs was 56,534,592 units or 99.99%. The remaining approximately 4,968 units or 0.01% are large businesses. The next data recorded in BPS is that nationally MSME growth in 2013 was 7.51%, 2014 was 4.91%, 2015 was 5.71%, 2016 was 5.78% and in 2017 amounted to 4.74%, so that the average growth of MSMEs from 2013 to 2017 is 5.73%. If calculated, the average growth of new MSMEs in Indonesia is 3,239,716.8 per year that appear in Indonesia. The amount is quite large and proves that MSMEs will grow in the coming years (LPPI and Bank Indonesia, 2015).

The MSME business does not always run smooth. Internal constraints that always appear as the main obstacle in MSMEs are business capital. Many things cause the emergence of capital constraints, including geographic barriers, administrative constraints, and others. Administrative constraints arise because the management of the MSME business is still traditional, haven't a good financial administration and management system. This is a major weakness for MSMEs to get funding from financial institutions. Regarding the distribution of funds to the business world, financial institutions must consider business feasibility and ability to return capital. Financial institutions, especially banks, must pay attention to capacity, collateral, economics condition, character and capital of business entities. Risk aspects and loan repayment guarantees are the standard for banks in channeling their funds.

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Debt default will be a problem for banks and increase the risk of the bank. Risk can be reduced by evaluating financial feasibility. Financial feasibility evaluating can be done through Net Present Value (NPV), Internal Rate of Return (IRR) and payback period analysis (Nugraheni and Suprihanto, 2015).
Research was held out in Tanjung Morawa. The selection of the research area with the reasoning that geographically the location of Tanjung Morawa is very close to Medan, the capital city of North Sumatera and it is the industrial centers of Medan. Tanjung morawa is one of the sub-districts in Deliserdang which has many industries from middle to upper industries, even micro industries. Rapid industrial development has become a major challenge for micro-enterprises to survive, compete with middle-to-upper industries. The aim of this research is to analyze main obstacle and the feasibility of the development of micro industries in the District Tanjung Morawa Deliserdang.

2 RESEARCH METHOD

This research was conducted in Tanjung Morawa Deli Serdang on July to September 2018. The research object is the owner of the industrial micro-sector who are made as respondents and domiciled in Tanjung Morawa.The sample selection method used Convenience sampling by choosing based for ease in data retrieval. The sample selection like this on the idea that the District Tanjung Morawa consisted of 25 villages and there is hundreds of micro-business industry sectors in village. The results of data described there were 31 micro-businesses which were willing to provide the required data. Primary data obtained from direct interviews with respondents using a questionnaire. Financial analysis and business development feasibility integrated in the following stages:

1. Preliminary survey of the condition of micro-enterprises in Tanjung Morawa.
   The survey began by looking at the conditions of various micro-industry businesses in Tanjung Morawa District. Based on data from the Badan Pusat Statistik (BPS) of Deli Serdang Regency, it can be seen that the number of micro-businesses spread in several villages and sub-districts of Tanjung Morawa District consists of several types of industries including food, beverage, textile, furniture, wood, earthenware and many others.
2. Determination of research samples.
   The sample selection is based on the Convenience Sampling method so that the data search process is not determined in advance what type of business the data will be taken. Determination of samples on the basis of convenience is done as well as possible so that the types of industries chosen are very diverse, including the food processing industry, furniture manufacturing, sculpture and earthenware making, broom making, corn processing, trident and glass making.
3. Retrieving data to respondents
   Data collection was carried out by involving 2 research members plus 4 team members. The data collection method used is through in-depth interviews with business owners using observation sheets and filling out questionnaires conducted by team members.
4. Data processing
   Data is processed using descriptive statistical methods to determine the size of the concentration and distribution of data. Furthermore, the data is processed using financial analysis in the form of calculating the Net Present Value (NPV), Internal Rate of Return (IRR), Net Benefit / Cost Ratio (B / C Ratio), and Payback Period
5. Results Analysis and Discussion
   Analysis of the results and discussion is done by tabulating and grouping the data obtained to get conclusions about the difficulties faced by business owners to develop their business.
   Feasibility analysis based on financial capability is carried out by the method of financial analysis NPV, IRR, B/C Ratio, and Payback Ratio.
6. Analysis of the feasibility of developing micro enterprises by financial analysis.
   Financial analysis was followed by an analysis of the feasibility of developing micro-enterprises in the industrial sector in the Tanjung Morawa area. Each calculation result of NPV value, IRR, B/C Ratio and Payback ratio will be analyzed to determine whether the business is feasible to be developed or not.
7. Evaluation and improvement of analysis results
   The next step is to perfect the results of the research so that the conclusions needed are needed in accordance with the research objectives. Related to things the results of the analysis will be prepared to be eligible for publication.

The financial feasibility analysis used consists of (Utari, Hadiana and Suryadi, 2016):

a) Net Present Value (NPV)

The Net Present Value of a project is the difference in Present Value (PV) of the current benefits with Present Value (PV) cost flows (Fleeson *et al.*, 2017).

The NPV formula is as follows:

$$NPV = \sum_{i=1}^{n} NB_i (1+i)^{-n}$$

atau

$$NPV = \sum_{i=1}^{n} \frac{NB_i}{(1+i)^n}$$

atau

$$NPV = \sum_{i=1}^{n} \overline{B_i} - \overline{C_i} = \sum_{i=1}^{n} N\overline{B_i}$$

Information:
NB: Net Benefit (Benefit - Cost)
C : Investment Costs + Operating Costs
B : Benefits that have been discounted
C : Cost that has been discounted
I : Factor discount
n : Year (time)

Furthermore, the feasibility of a business can be measured by the conditions below:
NPV> 0: Decent business/profit
NPV < 0: Unfit business/ loss
NPV = 0: Break even

b) Internal Rate Return (IRR)

The Internal Rate of Return (IRR) is the rate of return on net investment (Kusuma, 2012). The IRR interest rate will be obtained NPV=0. This means that the interest rate investment giving NPV=0. To obtain the final results of the IRR calculation, it must find a discount rate results in NPV positif. It was looking for discount rate produces a negative NPV (Sekaki and Pekanbaru, 2016).

The formula for calculating the IRR is as follows:

$$IRR = i_1 + \frac{NPV_1}{(NPV_1 - NPV_2)}(i_2 - i_1)$$

Information:
IRR : Internal Rate of Return
i1 : Discount rate that produces NPV +
i2 : Discount rate that produces NPV-
NPV1 : Net Present Value is positive
NPV2 : Net Present Value is negative

IRR has three values where each of these values has meaning to the investment criteria when compared to the social opportunity cost of capital (SOCC) as a discount factor .

IRR < SOCC, means that the business is not financially feasible.
IRR = SOCC, means the business is in a breakeven point.
IRR > SOCC, this indicates that the business is financially feasible.

c) Net Benefit Cost Ratio (Net B/C Ratio)

Net Benefit Cost Ratio (Net B/C Ratio) is a comparative number between the number of present value (PV) that is positive (as a numerator) with a negative number of present value (PV) (as a denominator) (Kusuma, 2012).
Assessment criteria are as follows:
Net B/C > 1: Business is declared eligible/profitable.
Net B/C < 1: Business is declared not eligible/loss.
Net B/C = 1: Business is at break even.

d) Payback Period

Payback Period is useful to find out how long it will take to close back investment expenditure by using cashflow. In a manner systematic can be formulated as follows (Wahyuningrum, Sukmawati and Kartika, 2014):
P = I / A
Information:
P = Amount of time needed to return investment capital (year)
I = Investment costs (rupiah)
A = net benefit every year (rupiah)
Assessment criteria are as follows:
PBP < 5 Years: Decent business
PBP > 5 Years: Business is not feasible
PBP = 5 Years: Break Even

3 RESULTS AND DISCUSSION

Primer data is carried out by taking data directly through interviews (in-depth interviews) with owners of micro business sector industry. There were 31 respondents in several Tanjung Morawa villages. A total of 9 respondents owned a business in the food sector, 4 respondents had a broom business, 3 respondents owned a trellis and glass making business, 4 respondents owned ceramic pots and jars business, 4 respondent had furniture manufacturing, 1 respondents has a stone business, 2 respondents have a business of making temper and tofu, and each of the 4 respondents has a corn processing business, fertilizer, and painting frames.

Based on the results of the question and answer using a questionnaire with respondents, it can be mapped several problems that are always faced by micro business owners in the industrial sector in Tanjung Morawa. These problems include:

1. The educational background of the business owner is low.
   Most of the total respondents are only graduated from junior high and high school/equivalent so basic knowledge in business development is very minimal. Business activities are carried out only based on experience and knowledge obtained from generation to generation.
2. Weaknesses in production planning.
   The business owner never plans to determine the amount of production. It is strongly associated with an educational background which is relatively low so that an understanding of the plan/budget is minimal. In the future, relevant training and mentoring needs to be given to business owners related to the field of production planning.
3. The business owner does not make financial statements.
   All respondents stated never prepare financial statements on a business carried not know how the value of business assets and how much profit can generate from operations. Such conditions can cause difficulties for the owner in separating personal property from business assets that have an impact on the sustainability of the business because he treats it as personal wealth.
4. Licensing and legality.
   Businesses are developed on average have not been incorporate, not have a business license, P-IRT, halal certificate and other legal requirements. Business owners complain of the high costs and complicated procedures that they prefer not to take care of permits and legality.
5. Difficulty in determining the current amount of capital.
   The business owner is unable to determine the exact amount of capital owned by the business at this time. This is related to the previous problem, namely the failure to prepare financial statements. The inability to determine capital is currently an indicator of the weak measurement capability of business development.
6. The small number of employees.
   Of all respondents around 90% only have 1-5 employees. This shows that the ability to provide employee salaries is still low.
7. Difficulty in getting additional capital for business development.
   Difficulty in getting additional capital is the main obstacle, considering that capital is a key factor that can describe the constraints mentioned earlier.

Financial analysis carried out on micro-enterprises in the industrial sector in the Tanjung Morawa region is by calculating the *Net Present Value* (NPV), *Internal Rate of Return* (IRR), *Net Benefit Cost Ratio* (B/C ratio), *Payback Period* (PP).

a. *Net Present Value* (NPV)

Based on the results of calculating the NPV value of the 31 MSMEs sampled, 28 MSMEs have a positive NPV value and 3 MSMEs have a negative NPV value (the results of the calculation are attached). Then the results were obtained that 90,32% of MSMEs were very safe and benefited and around 9.68% of MSMEs were still not feasible and unable. Based on the analysis, it can be concluded that the ability to develop and generate high profits for MSMEs in the Tanjung Morawa Sub-district area. The next analysis is that MSMEs are very feasible to develop. If the development of investments in MSMEs is carried out, there are opportunities for success.

b. *Internal Rate of Return* (IRR)

The IRR (internal rate of return) is the discount rate that results in an NPV equal to zero. If the IRR calculation results are greater than the discount factor, it can be said that the investment that will be made is feasible. If it is equal to a discount factor, it is said that the investment invested will return the investment, whereas if the IRR is smaller than the discount factor, the investment invested is not feasible. Discount factor in this research uses a reference interest rate set by Bank Indonesia, which is equal to 4.5%. Discount factor is also called the Social Opportunity Cost of Capital (SOCC). From the results of the IRR calculation (the results of the calculations attached) obtained as many as 23 MSMEs have IRR values > SOCC (Social Opportunity Cost of Capital). The remaining 8 MSMEs have an < SOCC IRR value. Results showed that 74.1% of SMEs are financially viable business, while 25, 9% of SMEs are still not financially feasible.

c. *Net Benefit Cost Ratio* (B/C ratio)

The B/C Ratio method basically uses the equivalent data of the present value of revenues and expenditures which in this case the B/C Ratio is a comparison between the present value of receipts or income derived from investment activities with the present value of expenses (costs) during the investment takes place within a certain period of time. The eligibility criteria is if the value of B/C Ratio > 1 and formulated with BCR = (∑ Present Value of Income): (∑ Current Value of Expenditures).

Based on the results of the B/C ratio ratio of 31 MSMEs , 25 MSMEs have a B/C Ratio > 1, while 6 MSMEs < 1. About 80.64% of businesses that are running are already feasible businesses that have been developed and have benefited. 19.36% of businesses that are running still cannot be considered operationally feasible and have not produced sufficient profits. The B/C Ratio < 1 is a new business and the operational age is still relatively short.

d. *Payback Period* (PP)

Payback period is a period that is needed to be able to recoup investment expenditure by using the proceeds or net cash flows. Based on the results of the Payback Period calculation of 31 MSMEs sampled, the overall payback obtained is still below 2 years. The average payback period is 0.3947. This figure shows that the cash flow generated by the business to cover the investment value is very short.

The payback period of the investment is an average of 0.3947 years. This means that funds embedded in assets will be recoverable within 0.3947 years. If investors are faced with two investment choices, then choose the smallest payback period. Based on the payback period analysis, it can be concluded that the MSMEs sampled on average are able to obtain back the funds planted for investment briefly and illustrate that the cash flows generated are quite good.

4 CONCLUSION

The identification of the main constraints faced by micro-industries in the industrial sector in Tanjung Morawa Deliserdang shows that the difficulty of obtaining additional capitalfor business development is the biggest obstacle to the survival of MSMEs. Difficulty in getting additional capital is the main obstacle, considering that capital is a key factor that can describe the constraints mentioned earlier.

Financial analysis by calculating the value of Net Present Value (NPV), Internal Rate of Return (IRR), Benefit and Cost Ratio (B/C Ratio) and Payback Period resulted in a fairly good assessment of the feasibility of developing micro-business industry in Tanjung Morawa District, Deliserdang. In general, it can be concluded that the micro business in the industrial sector in Tanjung Morawa sub-district is feasible for development because it is quite profitable, can survive and have a relatively short investment return period.

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