

A BUSINESS FEASIBILITY ANALYSIS OF SMALL AND MEDIUM ENTERPRISES FOR PRODUCT STRATEGY DETERMINATION

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ABSTRACT

"The main objective of this research is to analyze the feasibility of a small and medium enteIDRrise to analyze the feasibility of developing its business. The method used in this paper is to determine a slow skimming strategy by first analyzing financial feasibility and analyzing internal and external factors. The results of this study are that the slow skimming strategy is implemented by concentrating efforts in certain places that are relatively limited and areas that are still close to the company's location, introducing products by carrying out promotional activities at every event or exhibition, consumers are willing to pay for products because of friendliness in service and satisfaction. With regard to products

Keywords : Business Feasibility, Financial Feasibility, Payback Period, Net Present Value, Internal Rate Ratio, Profitability Index, Break Event Point,

PROEM

Small and Medium Enterprises (UKM) are one of the crucial drivers of economic development and growth in various countries including Indonesia (Utama, 2019). UKM is one of the industries that compete in advancing the economy in Indonesia. The ability of SMEs to provide job opportunities is much greater than that of large businesses. For this reason, UKM are an option because in general the types of businesses are labor-intensive and do not require large capital to start a business. Small industries are currently developing very rapidly in Bogor Regency, many sandal industries have sprung up due to increasing consumer interest in sandals that can be ordered according to consumer desires.

Based on the background and problem formulation, the purpose of this paper is un to find out the feasibility of business from the financial aspect and know the application of the slow skimming strategy in order to face business competition.

A business feasibility study is an activity to assess or measure the extent to which the benefits can be obtained in carrying out a business activity or a study of whether or not a business is feasible (Arvanitis & Estevez, 2018; Berry, 2017; Mukherjee & Roy, 2017).

The objectives of conducting business analysis (Gray & Larson, 2007; Larson & Gray, 2011) are (1) to determine the level of profit that can be achieved through investment in a project; (2) Avoiding waste of resources, namely avoiding unprofitable activities; (3) Assessing existing investment opportunities so that they can choose the most profitable alternative activities; (4) Determine investment priorities.

THEORETIC

According to (Liu & Filimonau, 2020; Prabowo, 2012; Pullteap & Kheovichai, 2019) , the stages of a business feasibility study need to be carried out appropriately. The stated goals can be achieved. The stages of a feasibility study are a) data and information collection, b) data and information processing, c) data analysis, d) decision making, e) recommendations. Preparation for a business feasibility study as one of the scientific methods generally includes several steps of activity, which are general can be seen in Fig 1.

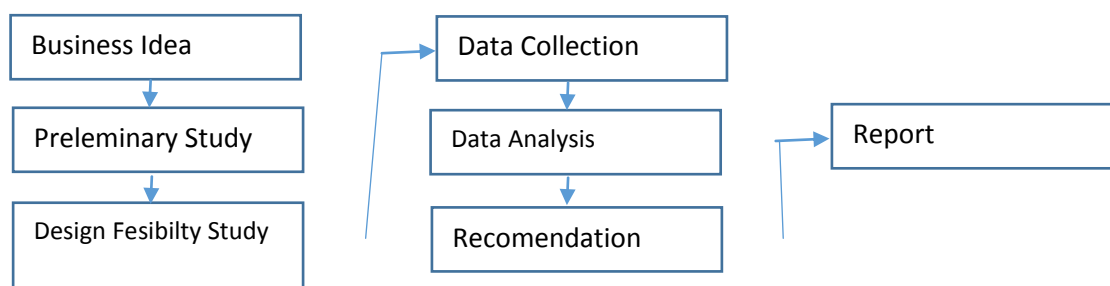


Figure 1. Business Feasibility Study Steps (Prabowo, 2012)

If a business that is running fails, of course, it will cause a lot of losses. So we need a business feasibility study to be able to minimize and analyze in more depth a business criterion (Anggary, 2018; Leshob, 2016). so that it can be said to be feasible or

not. There are at least five objectives why before a business is run it is necessary to carry out a feasibility study, (Jakfar, 2007) are avoid the risk of loss, Make planning easier, Make it easy to implement, Simplify supervision and Make it easy to control,

To determine the feasibility of a business can be seen from various aspects. Each aspect in order to be considered feasible must have a certain standard of value (Sucipto & Muazaroh, 2017) (Howell-Barber, Lawler, Joseph, & Narula, 2013). Assessment decisions (Constantinescu, 2010) are not only made on one aspect, but are based on all aspects to be assessed. The size of the assessment for each type of business is very different.

Meanwhile, according to (Al-Addous et al., 2020; Rupérez-Moreno, Pérez-Sánchez, Senent-Aparicio, Flores-Asenjo, & Paz-Aparicio, 2017), the assessment of each aspect must be assessed as a whole, not independently. If there is an unsuitable aspect, several suggestions for improvement will be given, so that it meets the proper criteria and if it does not meet these criteria, it is best not to implement it. The aspects assessed in the business feasibility study include legal aspects, market and marketing aspects, financial aspects, technical / operational aspects, management and organizational aspects, economic and social aspects, and environmental impact aspects.

METHOD

This paper uses the concept of business feasibility analysis in several ways, namely observation, interviews, and literature studies. The data used in this paper are primary and secondary data. Primary data types are obtained from selling prices, operational costs, and fixed costs. This data was obtained through direct observation in the field and interviews with related parties. Interviews are used as a data collection technique if the researcher wants to conduct a preliminary study to find problems that must be researched, and also if the researcher wants to know things from the respondents that are more in-depth and the number of respondents is small / small. Meanwhile, secondary data were obtained from company documents, government agencies, and some related literature in this paper.

This feasibility analysis uses several methods which are indicators of financial feasibility, namely Payback Period (PP), Net Present Value (NPV), Internal Rate Ratio

(IRR), Profitability Index (PI), and Break Event Point (BEP). The results of this analysis will determine what strategies can be used in product promotion.

RESULTS AND DISCUSSION

Table 1. Total Manufacturing Overhead Cost

	1 st Year (IDR)	2 nd Year (IDR)	3 rd Year (IDR)	4 th Year (IDR)	5 th Year (IDR)
Total Manufacturing Overhead Cost	444,543,000	515,579,933	620,969,198	779,379,120	930,632,602

Source: UKM Wati, 2020

Based on the table above, in the first year the total manufacturing was IDR 444,543,000. This is based on the price of raw materials in the first year, added by direct labor costs and overhead costs. $TMOH1 = \text{total raw material} + \text{direct labor} + \text{factory overhead}$
 $TMOH1 = \text{IDR } 135,651,000 + \text{IDR } 276,000,000 + \text{IDR } 32,892,000$
 $TMOH1 = \text{IDR } 444,543,000$ so you get a total manufacturing overhead cost of IDR 444,543,000.

Table 2. Cash Flow

Information	1 st Year (IDR)	2 nd Year (IDR)	3 rd Year (IDR)	4 th Year (IDR)	5 th Year (IDR)
Cash Flow	26,788,320	100,903,344	124,371,577	158,918,360	204,470,904

Source: Research data, 2020

The first year cash flow that comes in is $(\text{Revenue sandal} - \text{Total Cost}) \times \text{Tax } 36\%$ plus significant depreciation $(478,080,000 - 444,543,000) \times 36\% + 14,715,000$ so that the incoming cash flow is IDR 26,788,320. The second year cash flow that comes in is $(\text{Revenue sandal} - \text{Total Cost}) \times \text{Tax } 36\%$ plus significant depreciation $(\text{IDR } 754,992,000 - \text{IDR } 515,579,933) \times 36\% + 14,715,000$ so that the incoming cash flow is IDR 100,903,344. The 3rd year cash flow that comes in is $(\text{Revenue sandal} - \text{Total Cost}) \times \text{Tax } 36\%$ plus significant depreciation $(\text{IDR } 925,570,800 - \text{IDR } 620,969,198) \times 36\% + 14,715,000$ so that the incoming cash flow is IDR 124,371,577,

Table 3. Payback Period (PP)

Description	1st year (IDR)	2nd year (IDR)	3rd year (IDR)	4th year (IDR)	5th year (IDR)
Cash Flow	26,788,320	100,903,344	124,371,577	158,918,360	204,470,904
Payback Period	2 years 7 months 25 days				

Source: Research data, 2020

Based on the table above, the invested funds will be fully recoverable within 2 years 7 months 25 days, this is based on the following calculations.

Proceeds (Investment Value)	IDR 207,791,500
1st year	<u>IDR 26,788,320</u> IDR 181,003,180
2nd year	<u>IDR 100,903,344</u> IDR 80,099,836
3rd year	<u>IDR 124,371,577</u> IDR. (44,271,741)
4th year	<u>IDR 158,918,360</u> IDR (203,190,101)
5th year	<u>IDR 204,470,904</u> IDR. (407,661,005)

In the above calculation, it appears that the accumulated cash in (zero) lies between year 2 and year 3 so that the Payback Period (PP) will be in those years. At the end of year 2, net cash inflow was still around IDR. 80,099,836, whereas in year 3 cash flow was (44,271,741). Because the cash flow (cash flow) per year is not the same, the formula used is:

$$PP = \text{Year Reduction} + \left\{ \left(\frac{\text{Residual Investment Value}}{\text{Next Cash Flow}} \right) \times 1 \text{ year} \right\}$$

$$PP = 2 + \left\{ \left(\frac{\text{IDR. } 80.099.836}{\text{IDR. } 124.371.577} \right) \times 1 \right\}$$

$$PP = 2 + \{0,64 \times 1 \text{ tahun}\}$$

$$PP = 2 + 0,64$$

$$PP = 2,64$$

$$PP = 2,64 \text{ year}$$

Thus, the Payback Period (PP) of Ibu Wati's UKM is 2.65 years. with $0.64 \times 365 = 235.07$ days, $235.07 / 30 \text{ days} = 7.84$ months, $0.84 \times 30 \text{ days} = 25.2$ days or 25 days. This means that the funds invested will be fully recovered within 2 years 7 months 25 days. Which indicates that the effort made by Ibu Wati's UKM is feasible.

$$DF = \frac{1}{(1 + \text{discount factor})^{\text{tahun}}}$$

NPV is obtained from the calculation with a rate of return of 7%, it is because the interest rate obtained is 7%, the investment proposal can produce a present value of the proceeds that is greater than the PV present value of the capital, so that the Net Present Value (NPV) is positive, then the investment proposal is acceptable. By using the formula:

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1+r)^t} - I_0$$

So, the NPV of this case can be seen in Table 8.

Table 4. Net Present Value (NPV)

Year	DF (7)%	Proceeds (IDR)	PV of Proceeds (IDR)
1	0.9346	26,788,320	25,035,813
2	0.8734	100,903,344	88,132,889
3	0.8163	124,371,577	101,524,254
4	0.763	158,918,360	121,238,056
5	0.7130	204,470,904	145,784,929
Total PV of the proceeds			481,715,941
Total PV of the outlays			207,791,500
Net Present Value (NPV)			273,924,441

Source: Research data, 2020

So that the NPV of UKM Wati is the Total PV of the Proceeds - Total PV of the Outlays, namely: IDR 481,715,941 - IDR 207,791,500 = IDR 273,924,441 From the above calculation, because the NPV is more than zero or a positive value, the investment or business carried out by Mrs. Wati's UKM is feasible.

Table 5. Probability Index (PI)

Year	DF (7)%	Proceeds (IDR)	PV of Proceeds (IDR)
1	0.9346	26,788,320	25,035,813
2	0.8734	100,903,344	88,132,889
3	0.8163	124,371,577	101,524,254
4	0.763	158,918,360	121,238,056
5	0.7130	204,470,904	145,784,929
Total PV of the proceeds			481,715,941
Total PV of the outlays			207,791,500
Probability Index (PI)			2.32

Source: Research data, 2020

From table above the results of the $PI > 0$, Mrs.Wati's UKM using the PI method is acceptable or feasible.

Table 6 Net Present Value (NPV) with Positive Value

Year	DF (7)%	Proceeds (IDR)	PV of Proceeds (IDR)
1	0.9346	26,788,320	25,035,813
2	0.8734	100,903,344	88,132,889
3	0.8163	124,371,577	101,524,254
4	0.763	158,918,360	121,238,056
5	0.7130	204,470,904	145,784,929
Total PV of the proceeds			481,715,941
Total PV of the outlays			207,791,500
Net Present Value (NPV)			273,924,441

Source: Research data, 2020

Based on the table above, the NPV value is positive, that is, the discount rate is 7%, the NPV result is positive. Before looking for IRR, you must also know the negative NPV, because IRR is used to calculate the actual rate of return. In order to calculate the IRR where the proceeds of an investment are not the same from year to year, two different interest rates are selected, then interpolation is carried out to determine the interest rate that is close to the actual rate. The results of the NPV that are negative in Table 7.

Table 7: Net Present Value (NPV) with Negative Value

Year	DF (38)%	Proceeds (IDR)	PV of Proceeds (IDR)
1	0.7246	26,788,320	19,411,826
2	0.5251	100,903,344	52,984,323
3	0.3805	124,371,577	47,324,265
4	0.25757	158,918,360	43,818,523
5	0.1988	204,470,904	40,854,141
Total PV of the proceeds			204,393,078
Total PV of the outlays			207,791,500
Net Present Value (NPV)			(3,398,422)

Source: Research data, 2020

The results of the NPV calculation are positive with the current interest rate of 7%

$$\begin{aligned}
 \text{PV of the Proceeds} &= 0,9346 \times \text{IDR.}26,788,320 = \text{IDR } 25,035,813 \\
 &= 0,8734 \times \text{IDR.}100,903,344 = \text{IDR. } 88,132,889 \\
 &= 0,8163 \times \text{IDR.}124,371,577 = \text{IDR. } 101,524,254 \\
 &= 0,7629 \times \text{IDR.}158,918,360 = \text{IDR. } 121,238,056 \\
 &= 0,7130 \times \text{IDR.}204,470,904 = \text{IDR. } 145,784,929+ \\
 &\quad \text{IDR. } 481,715,911 \\
 \text{PV from Outlays} &= \text{IDR. } 207,791,500 - \\
 &\quad \text{IDR. } 273,924,44
 \end{aligned}$$

The results of the negative NPV calculation with an interest rate of 38%

$$\begin{aligned}
 \text{PV of the Proceeds} &= 0,7246 \times \text{IDR } 26,778,320 = \text{IDR. } 19,411,826 \\
 &= 0,5251 \times \text{IDR}100,903,344 = \text{IDR. } 52,984,323 \\
 &= 0,3805 \times \text{IDR } 123,869,796 = \text{IDR. } 47,324,265 \\
 &= 0,2757 \times \text{IDR } 158,414,071 = \text{IDR. } 43,818,523 \\
 &= 0,1998 \times \text{IDR } 203,964,093 = \text{IDR. } 40,854,141 + \\
 &\quad \text{IDR. } 204,393,078 \\
 \text{PV from Outlays} &= \text{IDR. } 207,791,500 - \\
 &\quad \text{IDR. } (3,398,42
 \end{aligned}$$

NPV calculation based on an interest rate of 7% and 38% with the same cash flow in table 8.

Table 8. Net Present Value Calculation based on Interest Rates of 7% and 38%

Difference in Interest Rates	Difference in PV (IDR)	Difference between PV of Proceeds and Capital Outlays (IDR)
7%	. 481,715,911	. 481,715,911
38%	. 204,393,078	207,791,500
31%	. 277,322,833	271,686,376

Source: Research data, 2020

$$IRR = 0.979\% = \frac{271.686.376}{277.322.833} \times 31\%$$

Then $IRR = 7\% + 0.979 (31) = 37.349\%$. The IRR value of Ibu Wati's UKM is 37.349% (percent). Based on the above calculations, the IRR value is 37.349%. This shows that this investment is feasible, because $37.349\% > 7\%$, $IRR > \text{Lowest interest rate}$. This value is greater than the prevailing interest rate of 7% (percent), so that the project or business is declared feasible.

Table 9. Break Event Point

Desc	1st year (IDR)	2nd year (IDR)	3rd year (IDR)	4th year (IDR)	5th Year (IDR)
total Fixed Cost	32,892,000	32,892,000	32,892,000	32,892,000	32,892,000
Total Variable Cost	411,651,000	482,687,933	588,077,198	746,487,120	897,740,602
Net Sales	478,080,000	754,992,000	925,570,800	1,179,944,010	1,457,732,336
BEP	236,719,014	91,196,570	90,205,783	89,537,666	85,622,214

Source: Research data, 2020

After knowing about the elements in the BEP calculation, then the overall BEP can be calculated, here is Table 14 for the overall BEP calculation can be shown in table 10.

Table 10. BEP calculation

Year	Overall BEP (IDR)	Percentage of Overall BEP (IDR)
1	236,719,014.8	51%
2	91,196,570.24	827.8%
3	90,205,783.26	1026%
4	89,537,666.2	1317.81%
5	85,622,214.07	1701.7%

Source: Research data, 2020

Based on the BEP calculation, it was obtained in the 2nd year and then until the 5th year the BEP value had a value of more than 100%, the BEP value was > 100%. This shows that the investment is feasible, because the investment age is 5 years and this corresponds to the PP value of 2.62 years. For Year 1, BEP for selling price, BEP for selling price and production are shown in Table 11.

Table`11 :BEP Table of Selling and Production Prices

Information	1st year (IDR)	2nd year (IDR)	3rd year (IDR)	4th year (IDR)	5th year (IDR)
BEP Price	23,225	17,950	18,523	19,137	19,418
BEP Production	17,837	19,694	22,580	26,979	30,672

Source: Research data, 2020

$$\begin{aligned}
 \text{BEP}_1 \text{ Price} &= \text{Total Production Cost} / \text{Total Production} \\
 &= \text{IDR. } 445,923,000 / 19200 \\
 &= \text{IDR. } 23,225.15 \\
 \text{BEP}_1 \text{ Production} &= \text{Total Cost of Production} / \text{Selling Price of Production} \\
 &= \text{IDR. } 445,923,000 / 25,000 \\
 &= 17,836.92 = 17,837 / \text{unit (rounded)}
 \end{aligned}$$

Based on the Break Event Point (BEP) analysis in the above calculation, this business will experience a return of principal when the production or sales volume is 17,837 pairs of shoes with a selling price of Rp 23,225. Based on the explanation above, this business will experience a different principal return each year according to the total production cost, total production and product selling price. So the calculation of the analysis on this financial aspect using the financial method shows that the sandal product business of Ibu Wati's UKM is feasible to run).

Conclusion

From the results of the research and discussion that has been done, it can be concluded that to find out the feasibility of Mrs. Wati's UKM business from the financial aspect by using the financial method it can be concluded that Ibu Wati's UKM is feasible, this can be seen from the results of the NPV value. positive, the PI = 2.32 and the IRR value is 37.349% > loan interest (7%), PP for 2 years 7 months 25 days, and BEP in the calculation in the 2nd year and thereafter until the 5th year, the value BEP has a value of more than 100%, BEP value > 100%. Then the company can be said to be getting a BEP value in year 2 and this is in accordance with the PP value which is worth

2.7 years. So it is said that Ibu Wati's UKM is feasible to invest in and run the company's operations.

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