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FEASIBILITY ANALYSIS OF INVESTMENT ASSETS FOR BUSINESS DEVELOPMENT IN THE CALCULATION OF CAPITAL BUDGETING IN SURABAYA UD RAHAYU

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ABSTRACT
This study discusses the production house purchase investment analysis and machine at Rahayu UD in Surabaya in terms of the financial aspect. The purpose of this study was to determine whether the proposed investments made Rahayu UD provides the benefits or otherwise making it feasible to run or not. The data used is primary data (interview with the parties can provide information for this study) and secondary data obtained from the study of literature. This type of research is descriptive qualitative. The analysis method used is the investment eligibility criteria consisting of*Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PP) and Profitability Index (PI) as a method of investment appraisal of the financial aspects. The results showed PP for 1.8 years, then declared eligible for faster compared with a target return on investment. NPV is positive at 300 281 359 to be eligible for a positive outcome. PI 1,283 to be eligible for a value greater than 1. And 15.932% IRR to be eligible for more than the required rate. So the investment plan Rahayu UD declared "WORTH" is executed.*

Keywords: Investment, Feasibility, Fixed Assets, *Capital Budgeting*

INTRODUCTION

Micro, small and medium enterprises (SMEs) have a role that is so important for economic development and growth, not just only in developing countries such as Indonesia but also developed countries. The development of micro-businesses have become a source of employment and income. When the crisis that began in 1998, precisely the companies small and medium- relatively able to survive than large firms. The reason is because the majority of small companies are less dependent on large capital or loans from the outside in the dollar exchange rate. So that when there are fluctuations in exchange rates, large companies are generally always dealing with foreign currencies are most likely to experience the outcome. It is now recognized that SMEs are one of the country's assets and plays an important role, ie as the bulk of the country's economy can be seen in the increase in gross domestic product (GDP) and other positive impacts seen also in employment by SMEs that can have a positive effect on income distribution. In today's economy, many SMEs are trying to maintain their business continuity of their business or want to develop. It is, making the creation of plans related to investment decisions. many SMEs are trying to maintain

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Investment is one way to develop a business such as creating new businesses or create new branches, increasing profit by replacing the engine of time then correct in this statement that the overall shape of these investments require substantial funds in the implementation and expenditure of funds or capital will normally affect the company's long-term (Fitra Abdullah: 2015).

To measure the feasibility of fixed asset investment can use analytical techniques of capital budgeting or capital budgeting. According Sudana (2009: 157), said that the capital budgeting decision-making process related to the long-term investment, which has a strategic impact for the survival of the company. But SMEs usually do not apply or do not understand the strategy, analytical techniques used to do large enterprises when viewed more closely while large companies have elements in common with SMEs. To that end, peuang applying analytical techniques of capital budgeting very exist and can occur.

Measurement of capital budgeting usually use the net present value (NPV) that the measurement results when (+), the investment boelh run so contrary, the profitability index (PI) measurement results when ≥ 1 then the investment should be run so conversely, the payback period (PBP) measurement result ≤ the specified time the company, the investment is allowed to be executed, the internal rate of return (IRR) when the measurement results more than the rate of interest used the cost of capital of the costs incurred initial investment is allowed to be executed, the break even point (BEP) is to provide information turning point between income levels of production and costs of production.

Of some SMEs in Surabaya, I am interested in Rahayu UD engaged in the food industry, namely soybean production murni.UD Rahayu started its business since 1980 until today. From the beginning that produces only a little and only sold in traditional markets alone until now produces many of tempe and can market to the supermarket like Superindo. Rahayu UD produces several types of tempeh, but the raw materials remains the same, namely soy, the only difference being the packaging and the name alone. Pure Tempe has also been certified kosher. Currently tempe production site itself one roof with a place to stay, only separated by a bulkhead only. With demand from consumers on pure soybean itself every day, then the business owner wants to buy land or a special place for producing tempeh for more leverage than the one roof with a place to stay. From the capital budgeting problem above problems will serve to further streamline fixed asset Rahayu UD's SMEs. The role of capital budgeting to facilitate SMEs make an investment decision.

LITERATURE REVIEW

Investation

(Haming & Basalamah, 2010) stated that the investment is to hold capital expenditure at the present time with the aim to produce output of goods or services in order to obtain greater benefits in the future, for two years or more.

Mulyadi (2001: 284) argues is the attribution of investment sources in the long term to generate profits in the future.

Cash flow

According to the statement of Financial Accounting Standards No. 2 of 2009, cash flows are inflows and outflows of cash and cash equivalents (Indonesia Accounting Association, 2013). Definition of cash inflows and outflows are cash inflows (cash inflow) is the source of the source from which the cash was obtained while the cash outflow (cash outflow) is the cash needs for payments (Martono and Harjito, 2012)

Business Feasibility Study

Feasibility study is research on whether a project can be implemented successfully. The term project has the meaning of a new business establishment or the introduction of something new into an existing product mix (Suad Husnan and Suwarsono in Jumingan: 2009). The project's success is measured in a limited sense of the economic benefits of an investment or the project's success in generating profits.

payback Period

This method measures how fast the value of investments can return the results are expressed in units of time. If the payback time is shorter than the time required by the stated project profitable, otherwise if the payback is longer than the time required it shall be rendered unprofitable. Determination of the maximum payback required to why on similar projects.

Net Present Value (NPV)

According to Suad Husnan and Suwarsono Muhammad (2014: 209-210), "This method calculates the difference between the current value of investment with the present value of net cash receipts in the future". To calculate the present value should be determined in advance interest rates that are considered relevant.

Profitability Index **(PI)**

This method is done by calculating the ratio between the present value of net cash receipts in the future with the present value of the investment. If the PI greater than the one it declared the project profitable, but if it is less than the one it declared unprofitable.

Internal Rate of Return **(IRR)**

According Sartono (2012), internal rate of return is a rate of return sought by interpolation or in other words, to equate the present value of net cash flow to the present value of an investment with the discount rate. IRR accepted if the investment value greater than or equal to the cost of capital and vice-versa (Shamsuddin, 2010).

METHODS

Research approach

This study used a descriptive approach qualitative with quantitative data gathering. In this research will generate descriptive data that discussed the feasibility of the investment plan land purchase house production using capital budgeting analysis. Due to the presence of each variable independent or stand-alone, so in this study did not compare or determine the relationship of each of these variables.

Object of research

Object in this research is the fixed asset investment in SMEs UD. Rayahu located in Jln. Simo Mountain East Kramat II / 7 Surabaya engaged in the food industry. SMEs are planning to buy land for soybean production house. Because this time the place for soybean production is a roof with housekeeping. With many consumers will tempe request of this pure, then UD. Rahayu plans to invest by adding new land for home production.

Data analysis technique

Technical analysis is capital budgeting techniques, namely to determine or assess the feasibility of an investment in the future will come, whether adverse or beneficial.

Data source Sources of data in this study using secondary data. Secondary data sources are obtained data that already exists in the SME UD. Rahayu such as financial reports every month.

Data collection technique

1. Documentation, which is a method to provide the documents by using an accurate evidence documenting the sources of specific information on the essay / article, wills, books, laws, and so on.
2. Observation, namely engineering study looked at all the problems which occurred in an object or the problems that occur in an object and observations to understand, recorded and described the problems that occurred and solutions suggested by the observer.
3. The field research (field research), the research done by way of direct visits to the object of investigation didtetapkan.

RESULTS AND DISCUSSION

Table 4. Income Statement

commentary	2019	Total
Income		
Supermarket sales	972 million	
Sales of Traditional Markets	180,000,000	
Total income		**1.152 billion**
Operating costs		
HPP Supermarkets	342 336 000	
HPP Market	141 120 000	
Salary expense	**90,000,000**	
Depreciation costs Equipment	**6,000,000**	
Vehicle Depreciation costs	**50,000,000**	
Depreciation costs Machine	**6,000,000**	
Defective Product load / Riject	**12,000,000**	
Pieces Rabat Supermarkets	**110,000,000**	
Total Operating Costs		**757 456 000**
EBIT	**394 544 000**	
Cost of Debt	**0**	
EBT		**394 544 000**
Profit before tax	**394 544 000**	
SMEs Tax 1%	**3.94544 million**	
Net Income / EAT	**390 598 560**	

(Source: processed author, 2019)

Table 5. Projected Income Statement

commentary	2019	2020	2021	2022	2023	2024
Income						
Supermarket sales	972 million	1.0664 billion	1.10208 billion	1.263016 billion	1.419512 billion	1589463200
Sales of Traditional Markets	180,000,000	285 600 000	385 120 000	372 904 000	380,000,000	390 million
Total income	**1.152 billion**	**1.352 billion**	**1.4872 billion**	**1.63592 billion**	**1.799512 billion**	**1979463200**
Operating costs						
HPP Supermarkets	342 336 000	359 452 800	377 425 440	396 296 712	416 111 547	436 917 124
HPP Market	141 120 000	148 176 000	155 584 800	163 364 040	171 532 242	180 108 854

Salary expense	90,000,000	100 800 000	112 896 000	126 443 520	141 616 742	158 610 751
Depreciation costs Equipment	6,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Vehicle Depreciation costs	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
Depreciation costs Machine	6,000,000	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Defective Product load / Riject	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000
Pieces Rabat Supermarkets	110,000,000	143 million	185 900 000	241 670 000	314 171 000	408 422 300
Debt burden	-	212 million	212 million	212 million	212 million	212 million
Total Operating Costs	**757 456 000**	**1044398800**	**1124806240**	**1220774272**	**1336431531**	**1477059029**
EBIT	**394 544 000**	**307 601 200**	**362 393 796**	**415 145 728**	**463 080 487**	**502 404 171**
Interest expense	0	31.8 million	31.8 million	31.8 million	31.8 million	31.8 million
EBT	**394 544 000**	**275 801 200**	**330 593 796**	**383 345 728**	**431 280 487**	**470 604 171**
SMEs Tax 1%	3.94544 million	2758012	3305907	3833457	4312804	4706041
Net Income / EAT	**390 598 560**	**273 043 188**	**327 287 889**	**379 512 271**	**426 967 683**	**465 898 676**

(Source: processed author, 2019)

Initial Investment

Table 6. Estimated Cost of Investment Business Development at UD Rahayu

No.	Information	amount	Price	Total
1.	Production house	1 unit	650 million	650 million
2.	Large pot / Dandang Boil Tempe	5 units	3,500,000	17,500,000
3.	Press machine	3 units	250,000	750,000
4.	Electrical installation			10.62 million
5.	fan Wall	5 units	500,000	2,500,000
6.	Water installation			55,000,000
7.	Gas stove	5 units	550,000	2,750,000
8.	Soy-breaking mill	5 units	3,000,000	15,000,000
9.	Delivery Devices with one pickup			200,000
10.	Delivery breaking machine Soybeans From Supplier in Blitar			2,000,000
11.	Renovation and Purchase of Goods			300,000,000

			TOTAL	1.05632 billion

(Source: processed author, 2019)

Table 7. Estimated Cashflow

Information	**2020**	**2021**	**2022**	**2023**	**2024**
Reception					
Old Sales Projections	1.0664 billion	1.10208 billion	1.263016 billion	1.419512 billion	1589463200
New Sales Projections	285 600 000	385 120 000	372 904 000	380,000,000	390 million
cash Inflow	**1.352 billion**	**1.4872 billion**	**1.63592 billion**	**1.799512 billion**	**1979463200**
Spending					
Operational Projections Lama	563 378 800	603 560 404	653 268 802	715 727 423	795 175 979
New Operational Projections	268 172 000	308 397 800	354 657 470	407 856 090	469 034 504
Debt burden	244 648 000	244 648 000	244 648 000	244 648 000	244 648 000
UKMM tax 1%	2758012	3305907	3833457	4312804	4706041
cash Outflow	**1078956812**	**1159912111**	**1256407729**	**1372544317**	**1513564524**
net Cashflow	**273 043 188**	**327 287 889**	**379 512 271**	**426 967 683**	**465 898 676**

(Source: processed author, 2019)

Table 8. Estimated Proceeds

commentary	**2020**	**2021**	**2022**	**2023**	**2024**
(0.85) EBIT	261 461 020	308 034 726	352 873 868	393 618 413	427 043 545
depreciation Machine	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
depreciation Equipment	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Vehicle depreciation	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
total Proceeds	**330 461 020**	**377 034 726**	**421 873 868**	**462 618 413**	**494 043 545**

(Source: processed author, 2019)

Investment Rate

Valuation of investments using capital budgeting methods include payback period, net present value, profitability index and internal rate of return. Here's the explanation:

payback Period

The payback period indicates how long a period of time that hinted to restore the value of investments by dividing the total initial investment with total proceeds per year. In this Rahayu UD maximum proceeds with due regard to the maximum estimated economic life of 5 years. PBP its subsequent calculation as follows:

$$\boldsymbol{Payback\ Period = A + \left(\frac{B - C}{D}\right)}$$

Information :
A = Year approaching return of the initial cost of investment
B = Initial investment
C = Proceeds of a sum approaching nominal initial cost of investment
D = Proceeds of the year exceed the total cost of investment

Table 9. Results Perhtungan Payback Period

proceeds 0	proceeds 1	proceeds 2	proceeds 3	proceeds 4	proceeds of 5
1.06 billion	330 461 020	377 034 726	421 873 868	462 618 413	494 043 545

$$\boldsymbol{Payback\ Period = 2 + \left(\frac{1.060.000.000 - 707.495.746}{421.873.868}\right)}$$
$$\boldsymbol{= 2 + \left(\frac{352.504.254}{421.873.868}\right)}$$
$$\boldsymbol{= 2 + 0,8 = 1,8\ x\ 1\ Tahun = 1,8\ Tahun}$$

Selection criteria:

1. If the payback period is faster than the target return on investment, then the investment project feasible.
2. If the payback period is longer than the target return on investment, the investment project is not feasible. (Sutrisno, 2009: 126)

With regard to the outcome of the above PBP for 1.8 years, while the maximum proceeds from Rahayu UD itself is 5 years, the rate of return on the investment value faster than the maximum value proceedsnya. Rahayu UD so that the project feasible.

Net Present Value

Net present value of attention to the net present value on the basis of the time value of money that would come to be assessed at the current time. It will be obtained from the difference of the present value of proceeds by the present value of initial

investment by taking into account the economic life and the discount rate specified in UD Rahayu are based on an interest rate of capital which are funded from capital loans used to develop the business. The loan interest rate is used as a basis for determining the discount factor as a determinant of the current value. The loan interest rate of 15.4 percent per year in mind, the discount factor NPV calculation is rounded up to 15 percent so that is exactly what the interest rate used to calculate the discount factor (df) or the current value.

$$NPV = Io + \frac{Proceeds}{(1 + r)^n}$$

Information :
NPV = Net present value
io = Initial Cost
r = Discount Rate
proceeds = Cash Receipts Log
Calculates NPV can use Excel as follows:

Table 10. NPV calculation

Year	Cashflow	DF 15%	PV NPV DF 15%
0			-1.06 billion
1	330 461 020	1.15	287 357 408
2	377 034 726	1,322	285 200 246
3	421 873 868	1,520	277 548 597
4	462 618 413	1,749	264 504 524
5	494 043 545	2011	245 670 584
		TOTAL	**300 281 359**

Selection criteria:

1. If the NPV is positive then the project worthy investment
2. If the NPV is negative then the project is not worth the investment. (Riyanto, 2001: 128)

The result of the calculation shows a positive NPV value amounted to 300 281 359, so that Rahayu UD proposal to buy a house the production is financially feasible.

Profitability Index

By using a discount rate of 15% mentioned above further profitability index (PI), can be calculated by comparing PV of cash inflow to the PV of initial investment. From the above calculation results obtained as follows
PVof Cash Inflow = 2516665662
PV of Investment = 1.06 billion
thus,

$$PI = \frac{PV\ Of\ Cash\ Inflow}{PV\ Of\ Investment} = \frac{1.360.281.359}{1.060.000.000} = 1,283$$

Selection criteria:

1. If PI> 1, the investment project is declared eligible to run
2. If PI <1, then the investment project was declared unfit to run. (Sutrisno, 2009: 128)

The results of calculations of profitability index (PI) is a value of 1.283, meaning greater than the first, so that the proposal to buy a house Rahayu UD production feasible.

Internal Rate of Return

Internal rate of return calculates the interest rate that equates the present value of the value of the proceeds. IRR is used as a benchmark level of the project's ability to generate proceeds of up to the same as the initial investment and then compared the level of cost of capitalnya. To obtain these values do interpolation approach to calculate the NPV is positive with negative NPV, so that it will acquire certain discount factor equal to the NPV value o, by the formula:

$$\mathbf{IRR} = \sum_{t=0}^{n} + \frac{\text{Net Cash Inflow}}{(1+r)^n} = 0$$

Where :

IRR = *Internal Rate Of Return*

n = The last period of the expected

$\sum_{t=0}^{n}$ = Total cash flow didiscounted-right at the end of the year

From the above calculation NPV NPV positive at 300 281 359, with a discount factor (DF) 15%, if used DF 16% PV of annuity tables = 3,272 negative NPV will be obtained as follows:

NPV = -1.06 billion + (300 281 359 x3,272)

NPV = -1.06 billion + 982 517 334

NPV = -77,482,666

Thus IRR for Rahayu UD can be calculated as follows: positive NPV =300 281 359, With DF = 15% negative NPV = -77,482,666, with DF = 16%

$$IRR = 15\% + \left(\frac{1.060.000.000}{1.060.000.000 - (-77.482.666)} x\ (16\% - 15\%)\right)$$

$$IRR = 15\% + (0,932\ X\ 1\%)$$

$$IRR = 15\% + 0,932\%$$

$$IRR = 15,932\%$$

Selection criteria:

1. If IRR> of the interest rate required, then the project is worth the investment.
2. If IRR <of the interest rate required, the investment project is not feasible. (Sutrisno, 2009: 127)

From the analysis of the IRR yield 15.932%, which means the value of IRR is greater than the prescribed interest rate is 15%, then the investment proposal can be run or feasible.

CONCLUSION

The results of analysis of the feasibility of using the financial aspects of capital budgeting indicator that the Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PBP) and Profitability Index (PI). The results of the analysis of investment proposals using capital budgeting at Rahayu UD is:

1. Cashflow is the revenue generated by the business operations within a certain time period, derived by adding net income with depreciation and interest after tax. Casgflow generated by Rahayu UD in 2019 amounted to Rp. 390 598 560. It is expected that in 2020 their incomes increase by 15% each year in order to cover the debt burden as a result of the investments made.
2. proceedsnet cash flow is obtained add profits from UD Rahayu, with amounts of depreciation by memperhirtungkan their taxes and cost of capital that must be borne by the investment / initial investment, so the information can be obtained from the income statement. Proceeds generated by Rahayu UD fairly well and good for a company of SMEs. With little capital can generate huge profits.
3. From the above explanation proves to bank interest of 15% would result in a net value. 300 281 359, had a lower risk, UD rahayu able to restore the initial cost of investment in a period of 1 year 8 months and have greater cash flow of the investment cost. So the investment proposal on Rahayu UD in Surabaya seen from the financial aspect feasibility declared "WORTH" to run.

Suggestion

Having outlined some of the above conclusions, it is necessary to put forward some suggestions related to fixed asset investment which can be taken into consideration in decision making in the future. As for suggestions that can be put forward suggestion is to add employees because with the investments increase production machinery and production in the future certainly will be many more and of course the existing human resources would be overwhelmed. Rahayu UD researcher's suggestion is to add employees to the future production could be more maximal etmpe.

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