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SCALE DEVELOPMENT OF AOFA FARM LIMOUSIN CATTLE BUSINESS BASED ON INVESTMENT FEASIBILITY ANALYSIS

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ABSTRACT

Beef supply in Indonesia has not been able to reach demand. Currently, the need for livestock is increasing, so it is necessary to develop cattle farming. Aofa farm is a cattle farm that focuses on fattening limousine cattle that sells its products only during Eid al-Adha. Aofa farm plans to its business by increasing the number of cattle pens, increasing the number of limousine cattle, and purchasing concentrate feed. In addition, there was an increase in the price of limousine cattle seeds, an increase in feed prices, and a decrease in sales of limousine cattle. So necessary for it to analyze the feasibility of Aofa Farm's limousine cattle farm based on non-financial aspects financial aspects, and switching value analysis. The results of the feasibility of the non-financial aspects of the development of Aofa Farm are feasible to run based on descriptive analysis and quantitative analysis which shows the feasibility score on each non-financial aspect of more than 50 percent. The results of the financial aspect analysis obtained an NPV value of Rp 2,674,602,815, Net B/C of 8.39, IRR of 88.15 percent, and Payback Period of 2.26 years which shows that the Aofa Farm development plan is feasible to run based on financial aspects because the value obtained exceeds the eligibility criteria. The results of the switching value analysis show that Aofa Farm is sensitive to a decrease in limousine cattle sales.

INTRODUCTION

Animal husbandry currently has great potential to be developed as a business activity. According to BPS (2014), animal husbandry is part of the development of the agricultural sector in Indonesia which has strategic value and has contributed to the creation of jobs in Indonesia. Livestock has an important role in the development of strategic values, namely, providing food,

a source of income and employment, as sustainable agriculture, can improve the environment, and efforts to reduce poverty (Subekti, 2022). Cattle farming in Indonesia is dominated by traditionally run livestock farming households that number around 5 million households. At present, the majority of farms still use traditional methods. Based on table 1, production has increased by 0.22 percent per year in the 2018-2022 period.

Table 1. Beef Production in Indonesia 2017-2021

No	Year	Beef Production (Ton)	Growth (%)
1	2018	497,970	-
2	2019	504,800	1%
3	2020	453,420	-10%
4	2021	487,800	8%
5	2022	498,920	2%
		Average	**0,22%**

Sources :Dirjen Peternakan dan Kesehatan Hewan, Kementan RI (2022)

The level of demand for Indonesian cattle is increasing every year. This can be seen from the level of per capita consumption with a growth rate 5.93%/year (Table 2). Meat consumption in cattle farming in Indonesia continues to increase along with population growth always has a positive value and people are increasingly realizing the importance of consumption of beef because it has a content that beneficial to the body (Khotimah et al, 2022). Based on Table 1 and Table 2, consumption growth is faster 5.93%/year (Table 2) than production growth of 0.22%/year (Table 1). In fact, increasing cattle production is currently needed in Indonesia to fulfill public consumption. (Khotimah et al, 2022). Therefore, efforts are needed to increase beef production to fulfill beef domestic consumption . Currently, Indonesia still imports beef from abroad to balance consumer demand. One of the ways to reduce imports is through the development of industrial-scale small-scale breeder programs to increase the efficiency of livestock reproduction (Muada et al, 2017).

Table 2. Beef Consumption in Indonesia 2017-2021

No	Year	Consumption (Kg/capita/year)	Growth (%)
1	2017	2.40	-
2	2018	2.58	7,50
3	2019	2.77	7,36
4	2020	2.95	6,50
5	2021	3.02	2,37
		Average	**5,93**

Sources : BPS (2021)

According to the Dirjenak dan Kesehatan Hewan (2021), the government is making efforts to increase the number of cattle fattening businesses in Indonesia by providing direct cash assistance to farms. Large companies have also started to run Corporate Social Responsibility programs by building cattle fattening farms.

The demand for beef in Indonesia always increases every year during the Eid al-Adha holiday. According to Kementan (2022), there is a need to increase the number of cattle sold by 13 percent into the demand for Eid al-Adha. In 2022, the number of cattle needed for Eid al-Adha is around 695,574 cattles. Therefore, there is a need to increase the cattle population and beef production in Indonesia so that the needs of the community can be met. Aofa farm is a cattle farm that focuses on fattening limousin used at Aofa Farm are bulls. Limousine beef has several advantages including the quality of the bee being quite good, without fat, soft, and resistant to disease so it becomes a supporting factor in the development of cattle (Dakhlan et al, 2021).

The market demand for limousine cattle, especially on the eve of Eid al-Adha, is increasing. This is felt by Aofa farm because, during the 2021 Qurban holiday, the farm ran out of limousine cattle stock because they were sold out. Equipment supporting the care of livestock still uses traditional equipment. Feeding at Aofa Farm currently only uses forage feed, namely tofu pulp as the main food. Aofa Farm wants to increase the amount of concentrate feed more than forage. This is because giving a little forage before or together with the concentrate causes the production saliva to increase, thus buffering in the rumen to be strong. Strong buffer capable of maintaining rumen pH, so that the population microbes remain intact and able to consume feed more and improve daily body weight gain (Rianto et al, 2006).

Currently, beef production in Indonesia is not able to meet the needs of the population (Gapuspindo, 2022). This is due to the lack of beef supply, which requires the government to import beef. The problem of beef production shortages due to the increasing demand for beef consumption in Indonesia provides an opportunity for the development of the cattle farming business. One of the efforts to increase livestock production is to increase the number and quality of domestic livestock (Mursidin et al, 2022). On the other hand, the advantage of a cattle farming business that focuses on fattening is that it is easier to run when compared to dairy cattle and cattle breeding (Disnakkan Kab Grobogan, 2021).

At the time of the establishment of Aofa farm, the owner built 15 pens with 12 limousine cows. Aofa farm fattens limousine cattle due to the genetic factor of limousin cattle which have a large weight and fast weight gain. In addition to genetic factors, the feed also affects the weight growth of cattle. Feed is the most important factor in the success of cattle productivity (Hartati et al, 2022). The feed has a role of about 60-70 percent in increasing cattle weight

productivity (Tolleng et al. 2016). Therefore, the use of feed is very necessary to pay attention in livestock businesses that focus on fattening cattle. The combined use of concentrate feed with forage feed affects the daily weight gain of cattle by 1.5 kg/head/day. The percentage of forage and concentrate feed that is good for fattening cattle according to Nurhayu (2011) is 60 percent for forage feed and 40 percent for concentrate feed.

Aofa farm has the opportunity to make greater efforts to develop its business. However, it is necessary to analyze the feasibility of the business conducted at Aofa farm. Aofa farm plans to increase the number of livestock owned and increase the use of concentrate feed. In addition, Aofa Farm also wants to increase the number of cages owned. Based on the above problems, the problem formulations that will be examined in this study are: 1) What is the feasibility of Aofa Farm based on non-financial aspects?, 2) How is the feasibility of Aofa Farm based on financial aspects?, 3) What is the sensitivity of Aofa Farm to an increase in the purchase price of limousine breeding stock, an increase in feed prices, and a decrease in limousine cattle sales?

RESEARCH METHODS

Location and Time of Research

This research was conducted at Aofa farm limousin Cattle Farm located at Jl. KH. A. Tajuddin No.15C, Bahagia Village, Babelan District, Bekasi Regency, West Java. The selection of this research location was done purposively with the consideration that Aofa farm limousin Cattle Farm is one of the farms that focuses on fattening limousin cattle. In addition, the owner of Aofa Farm limousine cattle farm wants to develop the farm by increasing the number of limousine cows from 15 cows to 20 cows and using concentrate feed to feed fattened limousine cows, so it is necessary to conduct a feasibility analysis. The research was conducted from November 2022 to June 2023.

Data Types and Sources

The data used in this study consisted of primary data consisting of quantitative data and qualitative data. Primary data was obtained by conducting direct field observations and interviews using prepared structured questions. The interview process was conducted with one farm owner and two employees. In addition, secondary data were also used, obtained from the company's internal records, namely business cash flow containing business revenue, investment costs, labor costs, and production costs. Secondary data was also obtained from the Central Bureau of Statistics, Ministry of Agriculture, Directorate General of Livestock and Health, related literature, journal, books, and journals obtained from the internet, IPB Repository and IPB library.

Data Analysis Method

Data processing in this study was carried out qualitatively and quantitatively. Qualitative analysis was used to determine the description of non-financial aspects. Quantitative analysis was conducted to determine financial feasibility by analyzing business cash flow and investment feasibility criteria. Switching value sensitivity analysis was also used in this study. Quantitative analysis is also used to analyze non-financial aspects using the Likert scale method. Quantitative data were collected, and processed using Microsoft Excel software which will be displayed in tabulated form.

Non-Financial Feasibility

The non-financial feasibility aspects to be conducted in this study consist of non financial aspects (market, technical, management and legal, social and economic, environmental) and financial aspects (cashflow, profit and loss, sensitivitas analysis). Qualitative analysis is done descriptively, while quantitative analysis is done using the Likert scale method. The Likert scale method is carried out by giving a value to the feasibility of an attribute based on a value scale of one to four. The Likert scale method can be seen in Table 3.

Table 3. Feasibility value of non-financial aspects

Business Feasibility Value	Performance level
1	Strongly disagree
2	Disagree
3	Agree
4	Strongly agree

According to Nazir (2005), the calculation of the total value of each criterion from each aspect is calculated by adding up all the values obtained and dividing by the number of criteria studied, then muliplying by 100 percent. If the non-financial aspects are between 51 percent and 100 percent, then the aspect is said to be feasible.

Financial Feasibility

Financial aspects are carried out to find out what costs are used to run a business and the income that will be obtained when running a business, Financial feasibility analysis is carried out using investment criteria analysis and switching value.

1. ***Net Present Value*** **(NPV)**

   According to Gittinger (2008), Net Present Value is the difference between the total present value of benefits and the total present value of costs. A business is declared feasible to run if it has an NPV value greater than zero.

If the NPV value is less than zero, then the business is not worth running. NPV can be formulated with the following calculation:

$$NPV = \sum_{t=1}^{n} \frac{Bt - Ct}{(1 + i)^t}$$

Description:
B_t : Limosin cattle farming business benefits in year t
C_t : Limosin cattle farming business costs in year t
t : Year of cattle farming business activity
i : Discount rate (%)

2. Net Benefit Cost Ratio (Net B/C)

According to Nurmalina et al. (2018), Net Benefit Cost Ratio is the ratio between positive net benefits and negative net benefits. A business is said to be feasible to run if the Net B/C value is greater than one. However, if a business has a Net B/C value smaller than one then the business is not worth running, The formula used to calculate the Net B/C value is as follows:

$$\text{Net B/C} = \frac{\sum_{t=1}^{n} \frac{B_t - C_t}{(1 + i)^t}}{\sum_{t=1}^{n} \frac{B_t - C_t}{(1 + i)^t}} \qquad \frac{(\text{if } B_t - C_t > 0)}{(\text{if } B_t - C_t < 0)}$$

Description:
B_t : Benefit in year t
C_t : Cost in year t
t : Year of cattle breeding business activity limosin
i : Discount Rate *(%)*

3. Internal Rate of Return (IRR)

Internal Rate of Return (IRR) is the level of income from an investment in a business (Gittinger 2008). Internal Rate of Return is the discount rate that results in an NPV value equal to zero (Nurmalina et al. 2018). The amount resulting from this calculation is in percentage units. IRR can be formulated as follows:

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

Description:
NPV_1 : NPV positif
NPV_2 : NPV negatif
i_1 : Discount rate yang menghasilkan NPV positif

i_2 : Discount rate yang menghasilkan NPV negatif

4. Payback Period (PP)

According to Nurmalina et al. (2018), the payback period is used to measure the period of return on investment. Therefore, a business that has a payback period smaller than the investment life, then the business is worth running. However, if the payback period value is greater than the investment life, the business is not worth running. The formula for calculating the payback period is as follows:

$$\text{Payback period} = \frac{I}{AB}$$

Description:

I : Investment costs incurred by limousine cattle farms

AB : Net benefits each year

5. Switching Value Sensitivity Analysis

Switching value is a calculation to measure the maximum change from a change in an inflow or outflow component that can still be tolerated so that the business can still be feasible to run (Nurmalina et al., 2018). The switching value analysis conducted in this study is to measure the sensitivity of Aofa Farm to the purchase price of limousine cattle seedlings, increased feed prices, and decreased sales.

RESULTS AND DISCUSSION

Non-Financial Feasibility

Market Aspects

The market aspect is the first aspect that must be analyzed before creating a business. This is because the market aspect determines whether analysis is needed on other aspects.

1. Market Potential

Currently, the market potential of Aofa Farm is still quite large. This is based on the fact that the cattle owned are still unable to meet buyer demand. Comparative data on the number of cattle sold and the number of cattle demanded by consumers can be seen in Table 4.

Table 4. Comparison of cattle sold to consumer demand

No	Year	Number of Cattel Sold	Consumer Demand
1	2021	12	14
2	2022	15	20

Based on the data in Table 4, it can be seen that from the beginning of sales, Aofa Farm was still unable to meet consumer demand. The majority of buyers are industries or factories from Cikarang.

2. Marketing Strategy

What Aofa Farm limousine cattle farm needs to do to develop its business and expand market share is to determine the marketing strategy to be used. Marketing strategy variables are 4Ps, namely product, price, place, and promotion. The products sold by Aofa Farm are limousine cattle that have been fattened in the period before Eid al-Adha. The weight of these cows averages around 750 - 1000 kg which can produce carcasses of 70% of the cow's body weight. Aofa Farm limousine cattle farm only sells bulls and does not breed limousine cattle. Aofa Farm limousine cattle farm charges Rp 75,000,000 for cattle weighing 750 kg to 900 kg. Meanwhile, cattle weighing more than 900 kg are priced at IDR 85,000,000. The location of Aofa Farm is located in Bahagia Village, Babelan District, Bekasi Regency, West Java. The location of Aofa Farm is close to the community and easy to access because it is near the highway. Aofa Farm currently conducts promotional activities using WhatsApp facebook, LinkedIn, and Google Maps. The owner also joins community organizations.

Analysis of market aspects is also carried out quantitatively using the Likert scale method. Based on Table 5, the results of the quantitative analysis conducted on the market aspect of Aofa Farm obtained an average feasibility value of 2.90 and obtained a feasibility percentage value of 72.64 percent.

Table 5. Results of quantitative analysis of value feasibility of the market aspect

No	Market Aspect Feasibility Criteria	Feasibility Score
1	Market demand can be met	2.33
2	Cattle are always available	2.67
3	Has an intended target market	3.67
4	Limousin cattle selling price is acceptable to buyers	2.67
5	Limousin cattle sold can compete in the market	3.67
6	Ease of distribution of limousine cattle	3.00
7	Marketing strategy used by the farm	2.33
	Average	**2.90**
	Feasibility value (%)	**72.64**

Technical Aspects

Technical aspects are aspects related to all operations that need to be analyzed. This analysis was conducted to assess the technical feasibility of fattening at Aofa Farm.

1. Business Location

Aofa Farm is located at Jl. KH. A. Tajuddin No.15C, Bahagia Village, Babelan District, Bekasi Regency. The location is privately owned. The location was chosen based on the ease of obtaining feed, reaching the market, transportation, and the available of electricity and water.

2. Business Layout

The Aofa farm area of 700 m^2 consists of cages, feed storage sheds, houses, waste bins, and weighing stations. The cages used are single-row individual cages with a unidirectional head. The cage used by Aofa Farm limousine cattle farm is a type of individual cage with a one-row model with a unidirectional head position or commonly called a single stall. This type of cage uses a single plane roof. The place used for feeding and drinking is located at the front of the row of cages. This arrangement is used for farmers with a small number of cattle. Aofa Farm has two cattle pens located to the east and south of the farm. The size of the pens owned by Aofa Farm limousine cattle farm is 1.5 x 2 m, for each cow.

3. Production Process

a. Maintenance System

The limousine cattle fattening system at Aofa Farm uses a dry lot fattening system. The dry lot fattening system is a system of raising cattle that are kept only in cages, not employed, and only given food with optimal nutritional value (Disnak Prov Jatim, 2023). In addition, good maintenance must pay attention to providing quality and quantity feed, sanitation pen (Gustono et al, 2020).

b. Feeding

The feed used by Aofa Farm limousine cattle farms is forage feed and tofu pulp. Forage feed consists of grass, kale, spinach, cabbage, cauliflower, cassava leaves, and corn. Forage feed is given 3 times a day and tofu pulp is given once a day. Drinking water for the cows in the drinking trough will always be filled every time it runs out.

c. Health control

Aofa farm bathes its limousine cattle twice a day, and conducts daily cage cleaning. This includes cleaning the floor, feed bins, water troughs, gutters, and tools. Aofa Farm also provides deworming and immunization.

d. Technology Selection

The types of technology selection used by Aofa Farm limousine cattle farms are traditional and modern. The modern technology used is scales.

Other tools used are traditional such as brushes, scissors, water barrels, pitchforks, buckets, shovels, sickles, hoses, ropes, and measuring tapes.

Quantitative analysis of technical aspects was conducted on Aofa Farm using the Likert scale method. Based on Table 6, the results of the quantitative analysis conducted obtained an average feasibility value of 3.19 and obtained a feasibility percentage value of 79.75 percent.

Table 6. The results of quantitative analysis of feasibility of technical aspects

No	Technical Aspect Feasibility Criteria	Feasibility Score
1	Farm location is close to supporting institutions	3.67
2	Has sufficient water sources	3.00
3	Has adequate equipment and supplies	3.33
4	Limousine cattle care	3.00
5	Employee work schedule	2.33
6	Limousin cattle feed availability	4.00
7	Cleanliness of the barn	3.00
	Average	**3.19**
	Feasibility score (%)	**79.75**

Management and Legal Aspects

Analysis of management and legal aspects is used to determine the management of a business, human resources, and the laws needed to build a business. About **management aspects,** the owner of Aofa Farm is Mr. Abid who is responsible for all activities at Aofa Farm from arrival to sale. The owner employs two employees whose job is to look after the limousine cattle from the time they arrive until they are prepared for sale. About **legal aspects,** Aofa Farm does not yet have a form of business entity, so Aofa Farm does not yet have legal power. The only legally valid documents owned by the Farm are the land certificate and building permit. However, Aofa Farm always requests a road letter from the Bekasi District Agriculture Office for every cattle delivery.

Quantitative analysis of management and legal aspects was conducted using the Likert scale method. Based on Table 7. the results of the quantitative analysis conducted, Aofa Farm obtained an average feasibility of 2.83 and a feasibility percentage of 70.83 percent.

Table 7. Quantitative analysis of feasibility values management and legal aspects

No	Management and Legal Aspects Feasibility Criteria	Feasibility Score
1	Market demand can be met	2.67
2	Cattle are always available	2.33
3	Has an intended target market	3.33
4	Limousin cattle selling price is acceptable to buyers	2.00
5	Limousin cattle sold can compete in the market	2.67
6	Ease of distribution of limousine cattle	4.00
	Average	**2.83**
	Feasibility value (%)	**70.83**

Social and Economic Aspects

Aofa Farm uses labor, weed whackers, and cooperates with traders from the surrounding community. Aofa Farm also makes it easier for nearby foundations to obtain sacrificial animals. Quantitative analysis of social and economic aspects was conducted at Aofa Farm using the Likert scale method by interviewing the owner and employees. Based on Table 8, the results of the quantitative analysis conducted by the Farm obtained an average feasibility value of 3.05 and obtained a feasibility percentage value of 76.37 percent.

Table 8. Quantitative analysis of feasibility values social and economic aspects

No	Social and Economic Aspects Feasibility Criteria	Feasibility Score
1	Using the labor of the surrounding community	4.00
2	The existence of the farm is accepted by the surrounding community	2.67
3	The farm has social activities	2.33
4	Increased economic activity around the farm	3.33
5	Increased income for the surrounding community	3.00
6	Livestock farms reduce the unemployment rate of the surrounding community	3.00
	Average	**3.05**
	Feasibility value (%)	**76.37**

Environmental Aspects

The environmental aspect analysis was conducted to determine whether there are any negative impacts on the environment that Aofa Farm can cause. Security at the site is maintained by a security guard from the village. Organic waste generated is reprocessed into fertilizer given to farmers. Inorganic waste

will be sold to waste collectors. This makes Aofa Farm acceptable and the community is not disturbed by the existence of the farm.

Table 9. Quantitative analysis of feasibility values environmental aspects

No	Environmental Aspects Feasibility Criteria	Feasibility Score
1	Animal husbandry has a positive impact on the surrounding environment	3.33
2	The farm already has an AMDAL	1.33
3	Safety in the farm environment	2.67
4	Waste treatment	3.67
5	Livestock waste disposal site	3.00
6	The existence of livestock does not affect the availability of water in the neighborhood	3.33
	Average	**2.88**
	Feasibility value (%)	**72.20**

Quantitative analysis of environmental aspects was conducted at Aofa Farm using the Likert scale method. Based on Table 9, the results of the quantitative analysis conducted obtained an average feasibility of 2.88 and a feasibility percentage of 72.20 percent.

The results of the non-financial feasibility analysis quantitatively show that Aofa Farm is feasible to run. This is based on the average number of feasibility scores having a value of more than 50 percent in each feasibility criterion (Nazir, 2005).

Financial Aspects

The financial feasibility analysis was conducted because Aofa Farm wants to increase the number of limousine cattle pens, increase the number of limousine cattle, and use concentrate feed.

Cash Outflow Analysis

a. Investment Costs

Investment costs are incurred for the tools and facilities needed to run the farm. In the second year of business, Aofa Farm limousine cattle farm developed by investing in the construction of five additional cages so that the number of cages became 20 units. Investation used for develop the business. Investment cost in year 1 is Rp 471,171,000. The investment are cage, employee house, scales, pitckfork, seythe, shovel, bucket, hose, rope, tape measure, brush, debris, lamp.

b. Operating Costs

Operational costs are the costs required to run a business related to the production process of Aofa Farm's cattle farm. Operational costs consist of fixed costs and variable costs.

1. Fixed Costs

Fixed costs are costs whose nominal value is not affected by production. The increase in depreciation costs is due to the increase in the number of cages. Aofa Farm's fixed costs can be seen in Table 10.

Table 10. Fixed Costs Aofa Farm limousine cattle

No	Description	Unit	Amount	Cost/Year (Rp)	Total Cost/Year (Rp)
1	Salary	Employee	2	48,000,000	96,000,000
2	Yearly Allowance	Employee	2	5,000,000	10,000,000
3	Electricity	VA	2200	6,000,000	6,000,000
4	Depreciation Costs Year 1			48,761,986	48,761,986
5	Depreciation Costs Year 2-10				50,011,986
Total Fixed Costs Year 1					**160,761,986**
Total Fixed Costs Year 2-10					**162,011,986**

2. Variable Costs

Variable costs are costs incurred by the business that will be equal to the increase in production and output. The difference between variable costs in the first year and the second to 10th year lies in the use of concentrates. Variable costs in the second to 10th years increased due to the addition of cows so that the feed used increased. Aofa Farm's variable costs can be seen in Table 11.

Table 11. The variable cost of Aofa Farm limousine cattle farming.

No	Description	Cost Year 1 (Rp)	Cost Year 2 (Rp)	Costs Year 3-10(Rp)
1	Limousin cattle breeding	420,000,000	525,000,000	700,000,000
2	Forage Feed	10,512,000	13,140,000	17,520,000
3	Tofu dregs	109,500,000	136,875,000	182,500,000
4	Concentrate	-	12,000,000	15,000,000
5	Road Letter	1,200,000	1,400,000	2,000,000
6	Truck Rental	18,000,000	21,000,000	30,000,000
7	Immunization	1,200,000	1,500,000	2,000,000
8	Worming Medicine	1,440,000	1,800,000	2,400,000
	Total	**561,852,000**	**712,715,000**	**951,420,000**

Cash Inflow Analysis

a. Sales Revenue

The sales revenue received by Aofa Farm comes from the calculation of the projected number of cattle sold multiplied by the selling price of the cattle. The number of cattle produced by the Farm in the first year is 12 cattle, in the second year 15 cattle, and in the following year 20 cattle.

b. Salvage Value

Salvage value is the final value of investment goods that have not been used up during the life of the business. The salvage value of investment Aofa Farm is Rp 6,852,857.

Profit and Loss Analysis

The profit and loss statement contains the total revenue expenditure and profit conditions obtained by a business in one production year. This profit and loss analysis was conducted at Aofa Farm limousine cattle farm to determine the amount of net profit received from the first to the 10th year. The projected profit and loss of Aofa Farm limousine cattle farm can be seen in Table 12.

Table 12. Aofa Farm limousine cattle farm projections

No	Description	Year		
		1	2	3-10
1	Total Sales	780,000,000	1,125,000,000	1,500,000,000
2	Operating Expenses	722,613,986	874,726,986	1,113,431,986
3	Profit Before Tax	57,386,014	250,273,014	386,568,014
4	Tax	7,800,000	11,250,000	15,000,000
5	Net Profit	49,586,014	239,023,014	371,568,014

Analysis of Investment Feasibility Criteria

Investment criteria analysis is used to analyze whether or not a business is feasible to run based on financial aspects. Aofa Farm in running its business and in developing using the owner's capital. The determination of value of the interest rate is determined using the Bank Rakyat Indonesia (BRI) deposit interest rate in June 2023 of 3 percent per year. Based on Table 13, Aofa Farm is feasible to run and develop based on financial aspects because it meets the investment feasibility criteria.

Table 13. The results of the analysis of the investment feasibility criteria of Aofa Farm's farms

No	Feasibility Criteria	Requirements	Result	Feasibility
1	NPV	> Rp 0	Rp 2,674,602,815	Feasible
2	Net B/C	> 1	8.39	Feasible
3	IRR	3 %	88.15%	Feasible
4	PP	< 8 years	2.26 years	Feasible

Switching Value Analysis

The switching value analysis conducted at Aofa farm was an increase in the purchase price of limousine cattle seedlings, an increase in feed prices, and a decrease in sales. These variables were selected in this study based on an interview with the business owner who said that the prices of the variables mentioned had experienced fluctuations during the Aofa Farm limousine cattle farming business. Another thing that made the variable cchosen was because the variable had a high amount of cost usage at Aofa Farm limousine cattle farm. This sensitivity analysis is also conducted to determine the maximum change limit of sales decline that can arise due to the risk of cow death and unsold cows. Based on the results of the switching value analysis on Table 14, Aofa Farm is most sensitive to changes in the variable decrease in limousine cattle sales. Meanwhile, the variable that has the lowest influence in affecting business viability is the increase in forage feed prices. This is different from research by Prasongko et al (2017) that the feasibility of livestock businesses is most sensitive to price increases.

Table 14. The result of switching value analysis Aofa Farm limousine cattle

No	Changes	Maximum Change Limit
1	Increase in the seed purchase price	48.33%
2	Increase in the price of tofu pulp feed	185.30%
3	Increase in price of forage feed	1930.75%
4	Increase in concentrate feed price	1789.30%
5	Decrease in sales	25.29%

CONCLUSIONS AND POLICY IMPLICATIONS

Conclusions

Based on the research that has been conducted on the feasibility of Aofa Farm from non-financial and financial aspects, it can be concluded that the analysis is feasible to run and develop. Based on the analysis of financial feasibility aspects carried out by analyzing investment criteria, Aofa Farm is

feasible to run and develop The results of the analysis of the financial aspects obtained by Aofa Farm are NPV of Rp 2,674,602,815. Meanwhile, the Net B/C value is 8.39, IRR is 88.15 percent, and Payback Period is 2.26 years. Based on the results of the switching value analysis, it is found that the most sensitive variable affecting the feasibility of Aofa Farm's limousine cattle farm is a decrease in limousine cattle sales.

Suggestion

Based on non financial and financial investment analysis, the scale of development of Aofa Farm Limousin Cattle is feasible. However, improvements are needed in the non-financial and financial aspects. Aofa Farm needs to maximize the use of social media that is already owned (YouTube and Facebook). The reason is to avoid a decline in sales due to a high level of sensitivity to business continuity. In addition, marketing activities are carried out through the use of e-commerce and other social media such as Instagram, Twitter, TikTok, and Telegram for the existence marketing limousine cows in the market.

Aofa Farm is necessary to better manage employee work schedules maintain the health of the cows and increase productivity. The farm needs to apply for an AMDAL permit to guarantee business operations and support environmental sustainability. The farm also needs to collaborate with more than one supplier of limousine cattle and tofu dregs feed that have the same quality to anticipate increases in production input prices.

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