

FINANCIAL FEASIBILITY ANALYSIS OF BOILER CHICKEN (*Gallus domesticus*) BUSINESS IN GAMPONG SEUMIRAH NISAM DISTRICT BETWEEN ACEH UTARA DISTRICT (Case Study: Business Entity Owned by Gampong Seumirah)

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Abstract

Broiler farming business is one of the businesses that has the potential to produce meat and increase protein consumption for the community. Broiler chickens are fast-growing chickens and can be harvested in a short time. However, in this boiler chicken farm business, it requires large costs for the manufacture of cages and operational costs. The research was conducted in Seumirah, Nisam Antara District, North Aceh Regency. The aim of this research is to analyze the financial feasibility of boiler chicken farming business. The data analysis method used in this research is quantitative descriptive analysis. The results of the study showed that BUMG Seumirah's boiler chicken farm located in Gampong Seumirah, Nisam Antara District, North Aceh Regency was feasible. This can be seen from the NPV value of Rp. 13,136,583,520. The Net B/C value is $14.1 > 1$ IRR value obtained is $73.63\% >$ the current interest rate (6%) BEP is obtained at 11 years 8 months 12 days.

Keywords: *a boiler chicken farming business, financial feasibility.*

1. INTRODUCTION

Economic activity in Indonesia is dominated by the agricultural sector which is the livelihood of the majority of the Indonesian population. One of the agricultural sub-sectors is the livestock sector which has great potential for development, because animal food sources are needed by all levels of Indonesian society in order to produce a healthy and intelligent nation (Bangun, et al, 2015). In addition, livestock is a sector that has great opportunities in the future on the grounds that land is decreasing but the need for land in the world of livestock is not as extensive as the need for agricultural land. The livestock sector has a strategic role in providing a source of food, energy and other supporting resources, thereby impacting the progress of economic life and the development of human resources. One of the livestock that is relatively widely kept by Indonesian people is chicken. Broiler chicken farming has several advantages compared to other meat-producing farms. These advantages include a short production cycle, namely within 4-6 weeks broiler chickens can be harvested with a body weight of 1.5-1.56 kg/head and do not require large areas of land, so that the available land can be utilized efficiently. Broiler chickens, also known as broiler chickens, are classified as superior breeds resulting from crossing several types of chickens with high productivity., especially in meat production.

The Central Statistics Agency (BPS) noted that the total population of broiler chickens in Indonesia was 3.11 billion in 2021. This number increased by 6.43% compared to the previous year of 2.92 billion. The broiler population in Indonesia has grown in the last decade. Initially, the population was only 1.18 billion in 2011. The number of broiler chickens continued to grow and there was a spike to 2.92 billion in 2017. The number is still rising to reach a peak of 3.17 billion in

2019. In 2020, national broiler population decreased by 7.9% to 2.92 million billion. However, that number increased again last year.

Aceh Province is one of the provinces in Indonesia where most of the people carry out boiler chicken farming as seen from the boiler chicken population in Aceh Province which has continued to increase from 2016 to 2021 even though the population has decreased slightly in 2020.

Table 1 Population of Broiler Chicken in Aceh Province

Year	Production Amount (Child)
2016	48.33.893
2017	13,924,348
2018	16,821,337
2019	33,328,202
2020	32,590,982
2021	35,580,243

Source: (BPS) Central Bureau of Statistics, 2021.

Gampong Seumirah, Nisam Antara District, North Aceh Regency is one of the gampongs that conducts boiler chicken farming by utilizing some of the funds provided by the central government to revive the community's economy, the gampong government uses funds to develop BUMG (Gampong Owned Enterprises) where Gampong Seumirah already has several businesses, but the largest is the boiler chicken farm, as well as the largest Boiler Chicken farm in North Aceh District (acehinfo.id, 2022)

This Boiler Chicken is managed by Mr. Wahed Andip and the Boiler Chicken farm in collaboration with PT. Charoen Pokphand when the chicken harvest is 35 days in one production in one year can be harvested 6 times and the harvest is sold to PT. Charoen Pokphand, for chicken feed that has been aged 20 days and over spends 3.5 Tons if the chickens are still small they only spend 1.5 Tons. For seeds supplied from the field in one production 24,000 heads. in one harvest production reaches 45-50 tons with a cage size of 126 x 12M. The problems that occur in the production process are that many dead chickens are caused by the weather and air temperature in the coop. Chickens dying during the production process have an impact on reduced profits in production added and added to the price of seeds which have increased from Rp. 7,000/kg now to Rp. 8. 000/kg is a financial problem experienced by boiler chicken managers, so researchers want to examine the feasibility of this business from a financial point of view. Is this chicken farming business feasible?

2. LITERATURE AND THEORETICAL REVIEW

2.1 Fees

Mulyadi (2015), cost is the sacrifice of economic resources measured in units of money that has occurred, is occurring or is likely to occur for a particular purpose. According to Hernanto (2017), production costs are costs that are considered attached to the product, including direct and indirect costs that can be identified by processing raw materials into finished products. It can be concluded that production costs are costs incurred in the production process to convert raw materials into finished materials to be sold.

2.2 Revenue (Benefits)

According to Marhawati (2019), benefits are the result of multiplying the amount of production and the selling price of a product which is measured in rupiah. Munandar in Hasanah (2022), argues that revenue is an increase in assets which results in an increase in owner's equity, but not because of the addition of new capital from the owner and also not the addition of assets caused by increased liabilities (liabilities). Revenue greatly affects the survival of a farming business, the higher the level of income earned, the greater the farmer's ability to finance all activities and expenses carried out in his farming business.

2.3 Benefits (Net Benefits)

According to Soekartawi in Hasanah (2022), the net benefit when viewed from the company's point of view is the difference in revenue obtained from sales and production costs in the year concerned. In an agro-industry or farming activity, the profit (net benefit) obtained is determined by subtracting sales proceeds from the total costs incurred. Sukirno in Hasanah (2022), stated that profit or net benefit is a profitable company activity. If the results obtained from sales minus all costs incurred are positive, then the company gets a profit (profit).

2.4 Analysis of Financial Feasibility

A business feasibility study concerns several aspects, one of which is the financial aspect. The results of the feasibility study are used to make a decision whether the project or business is carried out or postponed and even not carried out (Kasmir and Jakfar, 2012). The purpose of financial analysis is to find out the estimated cash flow and funding, so that it can be seen whether the business is feasible or not. A farm is said to be feasible if it can fulfill the obligation to pay interest on capital, the tools used, wages for outside labor, and other production facilities including obligations to third parties (Suratiah, 2015).

3. IMPLEMENTATION METHOD

3.1 Location, Object and Scope of Research

This research was conducted at village-owned enterprises in Seumirah Gampong, Nisam Antara District, North Aceh District. With the consideration that the boiler chicken farm in Gampong Seumirah is the largest chicken farm in North Aceh and has the status of BUMG. The object of this research is the boiler chicken farm. The scope of this research is to look at the financial feasibility of chicken farming in Seumirah Village, Nisam Antara District, North Aceh Regency.

3.2 Types and Sources of Data

The data used in this research are primary data and secondary data. Primary data was obtained by observing in the field by conducting interviews with business managers. Secondary data is supporting data for research obtained from books, official websites, journals published on the internet online, and through related service agencies, namely the Central Bureau of Statistics (BPS).

3.3 Data Analysis Methods

The analysis used in this study is a quantitative method. Quantitative descriptive analysis is a method used in analyzing data in the form of numbers. The collected data is analyzed using several business feasibility indicators, namely:

3.4 Analysis of Eligibility Criteria

a) Net Present Value(NPV)

NPV is to determine the present value of net income obtained from an investment activity. Net Present Value in boiler chicken farms can be calculated as follows:

$$NPV = \sum_{t=i}^n \frac{B_t - C_t}{(1+i)^t} \dots\dots\dots \text{(Moses, 2012)}$$

Information:

- Bt = Acceptance (benefits) in year t
- Ct = Cost (cost) in year t
- i = Discount rates(%)
- n = Project age (years)

With decision criteria:

- If the NPV > 0, then the boiler chicken business is profitable and feasible to pursue.
- If, NPV < 0, then the boiler chicken business is detrimental and not feasible to be cultivated.
- If, NPV = 0, then the boiler chicken business has no profit and no loss or is at the breakeven point.

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

Net B/C Ratio is a comparison between positive NPV values and negative NPV values. According to Grey, et al., (1997).

The way to calculate Net B/C is:

$$\text{Net B/C} = \frac{\sum_{t=1}^n NB_i(+)}{\sum_{t=1}^n NB_i(-)}$$

Information;

- Net B/C = Value Net Benefit Cost Ratio(IDR)
- NB+ = NPV value which is positive (Rp)
- NB- = NPV value which is negative (Rp)

With decision criteria:

- If, Net B/C > 1, the boiler chicken business is profitable and feasible to cultivate.
- If, Net B/C < 1, boiler chicken business is detrimental and not feasible to be cultivated.
- If, Net B/C = 1, the boiler chicken business is neither profitable nor detrimental.

c) Internal Rate Return(IRR)

The IRR is the discount rate that makes the NPV of a project equal to zero. According to Sucipto (2010), IRR is calculated by the formula:

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

Information:

- IRR = Internal Rate of Return (internal profit level).
- i_1 = Discount rate to produce NPV1 positive close to zero.
- i_2 = The discount rate for producing a negative NPV2 is close to zero.

With decision criteria:

- If, $IRR <$ the applicable loan interest rate, then the boiler chicken business is unable to return the service fee from the invested capital and incurs a loss.
- If, $IRR =$ the prevailing interest rate, then the boiler chicken business is not able to return the service fee from the amount of capital invested but does not make a profit.

d) Break Event Points (BEP)

BEP is calculating and describing a business in a balanced state (no profit and no loss financially). According to Ibrahim (2003), BEP can be calculated with the following equation:

$$BEP = T_{p-1} + \frac{\sum_{i=1}^n TC - \sum_{i=1}^n B_{eip-1}}{B_p}$$

Information:

- BEP = Break Event Points
- $tp-1$ = Year before BEP existed
- tc = Amount total cost which has been discounted
- $Beip-1$ = Amount benefits which has been discounted before the break event point
- Mr = Amount benefits which has been discounted in the BEP year.

With the criteria where the total revenue is the same as the total cost. In other words, when BEP the business does not make a profit and does not suffer a loss. If the return of total costs occurs faster, the business will experience a profit, conversely if the return of the old total costs, the business will experience a loss. So the greater the loss balance because the profits received still cover all costs incurred (Ibrahim, 2009).

4. RESULTS AND DISCUSSION

4.1 Boiler Chicken Cultivation

1. Feed

The types of feed given to Broiler chickens are H-00, H-11, H-12. The use of this type of feed is adjusted to the age of broiler chickens, the type of feed H-00 is given at the age of the chickens from the 1st to the 12th day, H-11 when the chickens are from the 12th to the 22nd day and for the age of the chickens on the 23rd day until harvest is given the type of feed H-12.

2. Vitamins and drugs

Table 2. Types and schedule of administration of vitamins and drugs

Chicken Age (Days)	Types of Vitamins and Drugs	Time
2-4	Linco Specitin	Evening
5-7	Perfexsol	Evening

8-10	Enflox	Evening
13-17	Perfexsol	Morning
18-21	Amproline	Evening
23-25	Biogren	Morning
26-28	Casumix	
29-harvest	Biogreens	Evening

Source: Primary Data (processed), 2022

Linco specitinis a drug used to treat respiratory problems caused by *Mycoplasma spp* and infections in chickens. Enflox functions to treat snoring, swollen face, chalky stools, green stools and other types of disease that appear. Amprolin is used to prevent the growth process from being disrupted in chickens, while biogreen is a type of vitamin and medicine in the form of a liquid to increase energy and health by improving liver, kidney function, appearance and feed efficiency. For Casumix, it is used to prevent and treat bacterial infections, while vitamins used to accelerate growth in boiler chickens is perfexsol.

3. Vaccine

The type and time of administration of the vaccine used in raising broiler chickens is vaccine 1 given at the age of 12 days, the type of vaccine given by IBD and for vaccine 2 given at the age of 24 days, the type of vaccine given by ND. The function and purpose of vaccines is to form and add antibodies such as immunity for chickens to avoid and be immune to various diseases and in the end production will be optimal, the purpose is protection or protection against harmful viruses (microorganisms) that can cause various poultry diseases.

4.2 Fees

1. Investment costs

Table 3. Details of investment costs incurred in broiler farming business BUMG Seumirah, Nisam Antara District, North Aceh Regency

No	Description	Unit	Unit Price(Rp/Unit)	Year		Economic age
				Amount	Cost	
1	Land Clearing	M2	25,000,000	1	25,000,000	0
2	Pen	M2	750,000,000	1	750,000,000	18
3	blowers	units	8,000,000	8	64,000,000	18
4	Tempron	units	8,000,000	1	8,000,000	18
5	Feed and Water	units	22,000	600	13,200,000	18
6	Sanyo	units	1,500,000	1	1,500,000	8
7	Gingset Machine	Seed	55,000,000	1	55,000,000	18
8	Water Drums	Tank	1,200,000	1	1,200,000	8
9	Electric panel	units	5,000,000	1	5,000,000	18
10	Tarpaulin	Roll	120,000	33	3,960,000	8
11	Building	Cottage	10,000,000	1	10,000,000	18
12	Super Saver	units	15,500,000	2	31,000,000	18
13	Light bulb	units	45,000	210	9,450,000	6
15	Gas Cylinder (12kg)	units	450,000	18	8,100,000	18
16	Machine Steam Power	units	5,000,000	1	5,000,000	18
17	Hoe	units	100,000	1	100,000	4
19	Machete	units	80,000	1	80,000	4
20	Pushcart	units	800,000	2	1,600,000	8
21	Broom stick	units	20,000	2	40,000	2
22	Palm-fiber broom	units	30,000	2	60,000	2

23	furnace	units	150,000	1	150,000	12
24	Cormorant	units	150,000	1	150,000	8
25	Big Scales	units	1,000,000	1	1,000,000	18
26	Small Scales	units	130,000	1	130,000	4
27	Bucket	units	20,000	1	20,000	2
28	Little Drums	units	250,000	2	500,000	8
29	Cooling Pads	units	380,000	16	6,080,000	18
Investment Cost					1,000,320,000	

Source: Primary Data (processed), 2022

Based on Table 3. The total investment costs incurred in the BUMG Seumirah broiler farm business amounted to IDR 1,000,320,000. The biggest cost incurred was for the manufacture of the cage, which was IDR 750,000,000. and the smallest fee for buying Ember is IDR 20,000.

In carrying out the process of raising broiler chickens, some equipment is needed. The equipment used in the broiler maintenance process, namely:

- 1) Feeding and drinking areas for chickens
- 2) Bucket, used as a water reservoir for the administration of vaccines, vitamins and medicines.
- 3) Wheelbarrow, used to carry feed and straw to the stable
- 4) Sitting scales, used for weighing chickens after they are harvested
- 5) Large drum size of 550 L, used as a water reservoir for the drinking needs of chickens.
- 6) Tarpaulin, used to cover the perimeter of the cage.
- 7) Hoes, for cleaning chicken manure.
- 8) Water hose, used as a distributor of water to the water reservoir (drum). and for spraying cages.
- 9) Place feed, used as a place to feed chicken seeds.
- 10) Straw, used as the floor of the chicken coop.
- 11) Light bulbs, used as lighting in the cage.
- 12) Sanyo, as a tool for pumping well water as a source of drinking water for chicken livestock.
- 13) Gengset engine, used to generate electricity when the power goes out.
- 14) The cooling pad functions to keep the temperature in the coop optimal and comfortable for the chickens.
- 15) blowers, functions to expel hot air from the cage and creates a gust of wind into the cage or closed house.
- 16) Tempron is a temperature control microcontroller and humidity sensor in the cage.
- 17) Super saveris a heating device that is used to warm and prevent DOC from freezing which can cause death.
- 18) steampower machine, a water pump used for spraying disinfectant on the cage.

2. Depreciation Cost

Table 4. Residual value at Seumirah BUMG investment costs

No	Equipment	Depreciation expense (Rp/year)	Remaining Year	Residual Value (Rp)
1	Sanyo	187,500	7	1,312,500
2	Water Drums	150,000	7	1,050,000
3	Tarpaulin	495,000	7	3,465,000

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5	Hoe	25,000	3	75,000
6	Machete	20,000	3	60,000
7	Pushcart	200,000	7	1,400,000
8	Broom stick	20,000	1	20,000
9	Palm-fiber broom	30,000	1	30,000
10	furnace	12,500	7	87,500
11	Cormorant	18,750	7	131,250
12	Small Scales	32,500	3	97,500
13	Bucket	10,000	1	10,000
14	Little Drums	62,500	7	437,500
Total				8,176,250

Source: Primary Data (processed) 2022

Based on Table 3. The total residual value in the Seumirah BUMG broiler chicken farming business is IDR 8,176,250. the largest residual value contained in the light bulb is IDR 3,465,000. and the smallest fee is found in a bucket of IDR 10,000.

3. Operational costs

Table 5. Details of the Use of Operational Costs in the Seumirah BUMG Broiler Chicken Farming Business

No	Urayain	Unit	Amount	Price	Total Cost
1	Doc/ Seeds	Tail	22,000	8,000	176,000,000
2	Feed				
	H-00	kg	7,000	12,000	84,000,000
	H-11	kg	12,000	9,700	116,400,000
	H-12	kg	27,500	8,700	239,250,000
3	Vitamins And Drugs				
	Linko Speccitin	Bottle	9	555,000	4,995,000
	Enflox	Bottle	2	255,000	510,000
	Pervexol	Wrap	8	195,000	1,560,000
	Amprol	Wrap	5	340,000	1,700,000
	Biongren	Bottle	3	420,000	1,260,000
	Casumix	Bottle	3	425,000	1,275,000
	IBD vaccine 1	Bottle	1	650,000	650,000
	2ND vaccine	Bottle	1	650,000	650,000
6	Labor				
	Free Labor	Person	10	200,000	2000,000
	Permanent Workforce	Person	3	8,000,000	24,000,000
7	Gngset oil	Liter	200	10,000	2000,000
8	Electricity cost	Watt	1	8,000,000	8,000,000
9	Gas	Tube	8	220,000	1760,000
10	Straw	Bag	600	8,000	4,800,000
11	Sugar	kg	15	15,000	225,000
12	Densikfetan				
	Bromoquat	Bottle	2	350,000	700,000
Total					671,735,000

Source: Primary Data (processed), 2022.

Based on Table5. Shows that the total operational costs for the BUMG Seumirah BUMG broiler farm in one production amount to Rp. 671,735,000, the largest cost incurred is to purchase H-12 of Rp.239,250,000.and the smallest cost for buying sugar is IDR 225,000.

4.2 Acceptance of Boiler Chicken Farming

Table 6. Details of the acceptance of the Seumirah BUMG Boiler Chicken for 18 Years

Year	Chicken Weight (Kg)	Price (IDR)	Revenue (IDR)
1	84128.4	18,000	1,514,311,200
2	246,735	18,000	4,441,230,000
3	271,733.7	18,000	4,891,206,600
4	271,733.7	18,000	4,891,206,600
5	271,733.7	18,000	4,891,206,600
6	271,733.7	18,000	4,891,206,600
7	271,733.7	18,000	4,891,206,600
8	271,733.7	18,000	4,891,206,600
9	271,733.7	18,000	4,891,206,600
10	271,733.7	18,000	4,891,206,600
11	271,733.7	18,000	4,891,206,600
12	271,733.7	18,000	4,891,206,600
13	271,733.7	18,000	4,891,206,600
14	271,733.7	18,000	4,891,206,600
15	271,733.7	18,000	4,891,206,600
16	271,733.7	18,000	4,891,206,600
17	271,733.7	18,000	4,891,206,600
18	271,733.7	18,000	4,891,206,600
Total			84,214,846,800

Source: Primary Data (processed), 2022

Congestedable 6. It is assumed that the production of boiler chickens in year 1 is doubled with the number of seeds of 24,000 per production process, so that production with a chicken weight of 48,128.4 kg is obtained with revenues of Rp.84,214,846,800 in the first year of receiving boiler chicken Rp1,514,311,200 with only 2 production times with a total of 24,000 DOC with an average weight of 1.8 kg/head, in the 2nd year the receipt of boiler chickens was IDR 4,441,230,000. with the same weight and number of DOC with 6 times the production in 1 year in the 3rd year revenue increased by IDR 4,891,206,600 with a total of 22,000 DOC with an average weight of 2.1 kg/head. In the 18th year there is a residual value of Rp8,176,250. then the income obtained by the BUMG Seumirah 18-year-old boiler chicken farm is IDR 84,223,023,050.

Differencethe weight of the chickens in the 3rd year was caused by the number of DOC/seeds that I reduced from 24,000 to 22,000 with the same production treatment and the same amount of feed in the previous year and by reducing the amount of production it could also reduce the risk of death in chickens so that in the 3rd year the number and acceptance of BUMG Seumirah's boiler chickens increased.

4.3 Advantages of Boiler Chicken Farming

Table 7. Details of the benefits of the BUMG Seumirah Boiler Chicken for 18 Years

Year	Total cost	Reception	Profit
0	1,000,320,000		-1,000,320,000
1	1,293,946,000	1,514,311,200	220,365,200
2	3,834,378,000	4,441,230,000	606,852,000
3	3,396,498,000	4,891,206,600	1,494,708,600
4	3,396,728,000	4,891,206,600	1,494,478,600
5	3,407,108,000	4,891,206,600	1,484,098,600
6	3,396,378,000	4,891,206,600	1,494,828,600
7	3,405,948,000	4,891,206,600	1,485,258,600
8	3,396,378,000	4,891,206,600	1,494,828,600
9	3,415,168,000	4,891,206,600	1,476,038,600

10	3,406,678,000	4,891,206,600	1,484,528,600
11	3,396,498,000	4,891,206,600	1,494,708,600
12	3,396,378,000	4,891,206,600	1,494,828,600
13	3,406,278,000	4,891,206,600	1,484,928,600
14	3,396,378,000	4,891,206,600	1,494,828,600
15	3,406,798,000	4,891,206,600	1,484,408,600
16	3,396,378,000	4,891,206,600	1,494,828,600
17	3,415,168,000	4,891,206,600	1,476,038,600
18	3,428,940,000	4,899,382,850	1,470,442,850
Total	60,592,344,000	84,223,023,050	23,630,679,050

Source: Primary Data (processed), 2022

Based on Table 7. It can be seen that the profit earned is Rp23,630,679,050. This is the result of a reduction in the amount of revenue earned by broiler breeders of Rp84,223,023,050. With the costs incurred for 18 years of Rp60,592,344,000. The cost in question is the cost consisting of investment costs and operational costs. The difference in costs is caused by investment costs which have an economic age so that production equipment is purchased in the following year and repair costs are incurred so that the equipment can also survive and remain optimal when used so that the costs incurred affect costs and profits.

4.4 Analysis of financial feasibility

Table 8. Results of Financial Analysis of Boiler Chicken Farming BUMG Seumirah

No	Financial Tools	Analysis Results	Information
1	Net Present Value (NPV)	13,136,583,520	Worthy
2	Net Benefit Ratio (Net B/C)	14,1	Worthy
3	Internal Rate Of Return (IRR)	73.63%	Worthy
4	Break Event Points (BEP)	11 years 8 months 12 days	

Source: Primary Data (processed), 2022

1. Net Present Value (NPV)

The results of the feasibility analysis are in Table 8. It can be seen that this business has an NPV value at the current interest rate of 6% which is Rp.13,136,583,520. This means this business will receive a profit of Rp13,136,583,520 for 18 years in present value. Thus this livestock business can be continued because the NPV value is greater than zero.

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

The Net B/C Ratio value is 14.1 which means every expenditure of Rp. 1.00 will give a receipt of Rp.14.1. This value indicates that this livestock business is feasible to continue because the acquisition value of the Net B/C ratio is greater than one.

3. Internal Rate Of Return (IRR)

The IRR value is equal to 73.63%, which means that it is higher than the bank interest rate (6%), the broiler farming business is feasible to continue because it has a return value that is higher than the prevailing bank interest rate (6%). This means that if the interest rate is above 73.63% then this livestock business becomes a loss so it is not feasible to run and cultivate.

4. Break Event Point (BEP)

The results of the Break Even Point analysis explain that this business will return investment capital in the 11th year, 8th month, 12th day. This means that after the return on investment costs, in subsequent periods the business will make a profit. If the return of total costs occurs

faster, the business will experience a profit, conversely if the return of the old total costs, the business will experience a loss. To see the calculation of the feasibility analysis results can be seen in the attachment.

4.5 Sensitivity Analysis

Table 9. Sensitivity analysis results for a 14.28% increase in the price of DOC/seeds and a decrease in the amount of production by 4,200 kg.

No	Analysis Tools	Analysis Results	Information
1	Net Present Value(NPV)	6,773,708,871	Worthy
2	Net Benefit Ratio(NET B/C)	7,7	Worthy
3	Internal Rate Of Return(IRR)	48.88 %	Worthy
4	Break Event Points(BEP)	14 years, 3 months, 12 days	

Source: Primary Data (processed) 2022

Based on the results of the sensitivity analysis in the table above, it can be seen that when the income goes down it is still said to be feasible when viewed from the NPV value which is positive, namely IDR 6,773,708,871. Obtaining a Net B/C value of $7.7 > 1$ means that this business is feasible. And the IRR value is 48.88%, which means that the business is feasible because it is higher than the bank interest rate (6%). The return on investment capital is obtained longer, namely within 14 years 3 months 12 days. The calculation is in the attachment.

5. CONCLUSION

The results during this research can be concluded as follows:

1. Based on the results of the study, it can be concluded that the boiler farming business of BUMG seumirah is feasible to continue. This can be seen from the acquisition of an NPV value of Rp13,136,583,520 > 0, the Net B/C value is $14.1 > 1$, the IRR value obtained is $73.63\% >$ the current interest rate (6%), the BEP is obtained in the 11th year, 8th month, day the 12th.
2. Sensitivity analysis on the assumption of a decrease in revenue of 14.28% with fixed input costs, the acquisition of an NPV value of IDR 6,773,708,871. Using the assumption of possible changes that could occur in the broiler farming business, BUMG Seumirah is still said to be feasible to run.

REFERENCES

- Bangun, E.S., Sebayang, T., Salmiah. 2015. Analisis Produksi dan Pendapatan Usaha Ternak Kambing Pedaging Sistem Kandang. Program Studi Agribisnis Fakultas Pertanian Universitas Sumatera Utara. Sumatera utara.
- Cafiso, S., & D'Agostino, C. 2018. A stochastic approach to the benefit cost ratio analysis of safety treatments. Case Studies on Transport Policy.
- Fahmi. 2010. Pengantar Politik Ekonomi. Bandung: Alfabeta.
- Hardianti. 2019. Analisis Kelayakan Dan Strategi Pengembangan Usaha Ikan Teri di Kota Tarakan. Skripsi. Tarakan: Universitas Borneo.

FINANCIAL FEASIBILITY ANALYSIS OF BOILER CHICKEN (Gallus domesticus) BUSINESS IN GAMPONG SEUMIRAH NISAM DISTRICT BETWEEN ACEH UTARA DISTRICT (Case Study: Business Entity Owned by Gampong Seumirah)

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- Hasanah, U. 2022. Analisis Kelayakan Finansial Usahatani Jeruk Pamelu Giri Matang (*Citrus maxima* (Burm.) Merr) di Kecamatan Peusangan Kabupaten Bireuen. Skripsi. Universitas Malikussaleh.
- Hernanto. 2017. Akuntansi Biaya. Penerbit Andi: Kerjasama dengan BPFE UGM. Yogyakarta.
- Ibrahim, Y. 2009. Studi Kelayakan Bisnis. Jakarta: PT. Rineka Cipta
- Jopie. 2015. Analisis Kredit. Penerbit Andi: Yogyakarta.
- Kasmir dan Jakfar. Studi Kelayakan Bisnis. Edisi Revisi. Jakarta: Kencana. 2012.
- Kusuma, P. T. W. W., & Mayasti, N. K. I. 2014. Analisa kelayakan finansial pengembangan usaha produksi komoditas lokal: mie berbasis jagung. *Agritech*, 34(2), 194-202.
- Marhawati. 2019. Analisis Kelayakan Finansial Usahatani Jeruk Pamelu di Kelurahan Attangsalo Kecamatan Ma'rang Kabupaten Pangkep. Prosiding Seminar Nasional LP2M UNM-2019.
- Mulyadi. 2015. Akuntansi Biaya. Yogyakarta: Sekolah Tinggi Ilmu Manajemen YKPN.
- Musa, A. P. 2012. Perencanaan dan Evaluasi Proyek Agribisnis. Yogyakarta: Lily Publisher
- Pasaribu, A. M. 2012. Perencanaan Dan Evaluasi Proyek Agribisnis. Andi Offset. Yogyakarta.
- Potkany, M., & Krajirova, L. 2015. Quantification of the volume of products to achieve the breakeven point and desired profit in nonhomogeneous production. *Procedia economics and finance*, 26, 194-201.
- Rasyaf M. 2008. Paduan Beternak Ayam Petelur. Jakarta: penebar swadaya.
- Ringo, Arman Siringo. 2016. Studi Kelayakan Finansial Usaha Peternakan Ayam Ras Dengan Pola Kemitraan Di Kecamatan Rambah Hilir Kabupaten Roakan Hulu. *Jurnal Agribisnis*.
- Soekartawi, 2003. Prinsip Dasar Ekonomi Pertanian. Jakarta: Raja Grafindo.
- Sukirno, S. 2005. Pengantar Teori Mikro Ekonomi Edisi Ketiga. Jakarta: Raja Grafindo Persada.
- Suratiyah, K. 2015. Ilmu Usahatani. Jakarta: Penebar Swadaya.