

Feasibility Study of Layer Poultry Farming KWTT "Women's Work" at Banyumas District

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ABSTRACT

KWTT "Women's Work" is the only group of farmers in the village who seek Karanggude Kulon range chicken. KWTT "Women's Work" was formed on April 21, 2004 and consisted of 20 women. The main effort KWTT "Women's Work" is raising domestic poultry from breeding, production and sale of egg consumption, the production of eggs, young male sales, sales of culled birds, and sales of fertilizer derived from chicken manure. This study aims to know the business profile and feasibility of poultry farm KWTT "Women's work". The research method used is a case study. The primaries are the data used the data and secondary data. Analytical methods used are: a descriptive analysis, analysis of production costs, revenues and profits, business or financial feasibility analysis by looking at four criteria, namely investment NPV (Net Present Value), IRR (Internal Rate of Return), Net B / C Ratio (Net Benefit Cost Ratio), and ARR (Average Rate of Return). The results showed that the operational costs for one year in 2012 for Rp134.439.300,00 with the percentage of 47% is a fixed cost and 53% is a variable cost. Variable costs for feed and medicine at Rp692 per chicken. Total group revenue derived from the sale of chicken eggs, chicken and chicken manure rejected by Rp166.756.200,00. Total profits Rp32.316.900,00. The results of the feasibility analysis is obtained by Rp8.170.876,09 NPV, IRR of 9:28%, Net B / C of 1.074, and ARR of 11:07%. The analysis showed that the poultry farm business is worth to be developed. The results showed that the operational costs for one year in 2012 for Rp134.439.300,00 with the percentage of 47% is a fixed cost and 53% is a variable cost. Variable costs for feed and medicine at Rp692 per chicken. Total group revenue derived from the sale of chicken eggs, chicken and chicken manure rejected by Rp166.756.200,00. Total profits Rp32.316.900,00. The results of the feasibility analysis is obtained by Rp8.170.876,09 NPV, IRR of 9:28%, Net B / C of 1.074, and ARR of 11:07%. The analysis showed that the poultry farm business is worth to be developed. The results showed that the operational costs for one year in 2012 for Rp134.439.300,00 with the percentage of 47% is a fixed cost and 53% is a variable cost. Variable costs for feed and medicine at Rp692 per chicken. Total group revenue derived from the sale of chicken eggs, chicken and chicken manure rejected by Rp166.756.200,00. Total profits Rp32.316.900,00. The results of the feasibility analysis is obtained by Rp8.170.876,09 NPV, IRR of 9:28%, Net B / C of 1.074, and ARR of 11:07%. The analysis showed that the poultry farm business is worth to be developed. chicken and chicken manure rejected by Rp166.756.200,00. Total profits Rp32.316.900,00. The results of the feasibility analysis is obtained by Rp8.170.876,09 NPV, IRR of 9:28%, Net B / C of 1.074, and ARR of 11:07%. The analysis showed that the poultry farm business is worth to be developed.

Key words: KWTT "Women's Work", NPV, IRR, Net B / C, ARR

INTRODUCTION

The agricultural sector was the sector most labor-intensive and proved to be the only sector to grow positively during the crisis in 1998. Similarly, the livestock sector plays an important role in the creation of food security as a provider of animal protein needs of Indonesian society. According Inounu et al (2006), the livestock subsector significant role in national food security through the provision of animal protein and a provider of employment in both rural and urban level. One animal protein are laying hens. In addition to region contribute to chicken eggs, also culled birds that can be consumed by the public. Enterprises laying hens have a quick turnover, and egg prices are relatively affordable by the community.

Karanggude Kulon village is a village of 13 villages in the subdistrict Karanglewas, Banyumas located Karanglewas subdistrict, Banyumas. Distance Village Karanggude Kulon is

± 5 km from the center of the capital districts, Purwokerto. The population of Karanggude Kulon village is 5,184 people with the number of farm households as much as 1,581 families (Monograph Village, 2012).

Karanggude Kulon Village area consists of the yards, the rainfed areas and rural irrigation of rice fields. The main commodity crops grown by farmers Village

Karanggude Kulon is the cassava plant. The cropping pattern used is intercropped with groundnut and paddy fields. Cassava is the main commodity of Karanggude Kulon village. In addition to agricultural commodities, Karanggude Kulon village also has an advantage in the field of animal husbandry. The main commodities in the field of animal husbandry in the village Karanggude Kulon is a free-range chicken. Free-range chicken cultivated by the inhabitants of the village of Kulon Karanggude either individually or in groups.

KWTT "Women's Work" is the only one in the village farmer groups that seek Karanggude Kulon-range chicken. KWTT "Women's Work" tanggal formed on 21 April 2004 with a membership of 20 people. The main business of KWTT "Women's Work" is raising free-range chickens, while other business is food processing, cultivation of cassava, papaya cultivation California, and the cultivation of groundnuts (Profile Group, 2010).

The main effort KWTT "Women's Work" is raising domestic poultry which starts from breeding, production and sale of egg consumption, the production of eggs, young adult sales, sales of culled birds, and sales of fertilizers derived from chicken manure. The population of livestock owned by KWTT "Women's Work" at the beginning of standing up to 500 birds. The cattle population continues to experience growth every

annually in line with the group's progress. Table 1 shows the development of the domestic poultry population is owned by KWTT "Women's Work".

Table 1. Population Development of Chicken Owned Buras KWTT "Women Creation"

Year	Total Chicken (tail)
2007	3062
2008	2794
2009	2781
2010	2,900
2011	2,000
2012	1,061

Source: Profile KWTT "Women's Work" (2012)

One of the main goals of the business of laying hens are able to generate profit optimal and sustainable. The level of business success can be seen from the feasibility of their business. Based on the state of the above problems can be formulated as follows:

1. What is the profile of laying chicken farm KWTT "Women's Work"?
2. How the feasibility of laying hen farms KWTT "Women's Work"?

The purpose of this study was to:

1. Knowing the poultry farm business profile KWTT "Women's Work"?
2. Determine the feasibility of laying hen farms KWTT "Women's Work"?

RESEARCH METHODS

The method used is a case study. This method is a approach which aims to develop the objects in question in the review of the research problem (Nazir, 1998) The data used are primary data and secondary data.

Qualitative data is used to explain and describe the profile KWTT "Women's Work". While quantitative data is used to describe the analysis of input -

work output which includes analysis of the production cost, revenue and profit which is then used for the calculation of feasibility analysis or financial feasibility.

1. analysis Biayes Production

Production costs are all expenses incurred during the production process. Mathematically written as follows:

$$TC = TFC + TVC$$

Information :

TC = Total Cost

TFC = Total Fix Cost

TVC = Total Variable Cost

The production costs can be divided into two, namely:

- a. Fix Fixed Cost or Total Cost (TFC)

Represents charges are not affected by the resulting production (Himawati, 2006).

Fixed costs include depreciation cost of equipment, cages, buildings and tax

- b. Variable costs or Total Variable Cost (TVC)

Is the size of the fee

affected by the resulting production or operating costs (Himawati, 2006).

2. Revenue analysis

Acceptance is the product of the price of the total production and is written as follows (Himawati, 2006)

$$TR = Pq \times Q$$

Information :

TR = Total Revenue

Pq = Price per unit

Q = Total production

3. advantage analysis

The advantage is the difference between total reception with the total cost of production and mathematics can be written as follows (Himawati, 2006): $\Pi = TR - TC$

Information :

Π = Profit

TR = Total Revenue

TC = Total Cost

4. Feasibility Analysis

Investment appraisal of a business is required to be able to compete with similar businesses in the era of globalization. According Kadariah et al. (2000) there are four investment criteria commonly used and can be accounted for, namely:

- Net Present Value* the flow of benefits and costs (NPV)
- Internal Rate of Return* (IRR)
- Net Benefit Cost Ratio* (Net B / C)
- Average Rate of Return* (ARR)

a. Net Present Value (NPV)

NPV is the difference between the present value of the benefits to the present value of the cost.

$$NPV = \frac{\text{Present Value of Benefits}}{\text{Present Value of Costs}}$$

Information:

Bt = benefit (benefits) in t.

Ct = cost in month t

n = Age of farming

i = the interest rate

Assessment criteria:

NPV > 0, the investment is feasible

NPV < 0, The investment is not feasible

NPV = 0, investation the experience
break even point, the benefits

earned just enough to cover production costs or in case of break-even.

b. Internal Rate of Returns (IRR)

Internal Rate of Return (IRR) is the discount rate that could make the current net benefit of an investment equal to zero or NPV equal to zero. Criteria for decision-making on the IRR is that the investment is acceptable if the IRR is greater than the public interest. Benchmark interest rate can be derived from the Bank's interest rate or still hasus adjust the risk that must be faced. The higher the risk, the higher the interest rate comparison as required (Kadariah et al., 2000).

Use of the IRR and NPV for assessing a similar investment proposal, it should give the same decision. Differences may occur in the decision alternatifinvestasi election. This is because the interest rate differential to doubles (reinvestment rate) used in reinvesting investment

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

Net B / C a comparison between the present value of the positive present value is negative. Generally formulated as follows.

$$\frac{\text{Net B}}{\text{C}} = \frac{\text{Present Value of Benefits}}{\text{Present Value of Costs}}$$

Assessment criteria:

Net B / C > 1, the investment is feasible

Net B / C < 1, The investment is not feasible

Net B / C = 1, benefits (Benefit) that earned just enough to cover production costs or investments tersebut breakeven (BEP)

Terms of use analysis Net B / C Ratio
There is at least one value of Bt - Ct negative, meaning there is a period (time) in which investments have yielded disappointing results in the following year. Otherwise the value of Net B / C would be infinity (Kadariah et al., 2000).

The feasibility analysis is used to determine whether a chicken egg business partners financially feasible study and to determine the ability of owned capital control. The results of the feasibility analysis can also tell whether KWTT worthy partners for funding the banking (bankable).

d. Average Rate of Return (ARR)

—Where —

Information :

ANI = Average Net Income

AI = Average Investment

IT = Total Investment

criteria:

A project may be accepted if its ARR exceed a target of

RESULTS AND DISCUSSION

A. Business profile

KWTT "Women's Work" was formed in 2004. The group is composed of women farmers 20 people and the whole work as homemakers tanga. The activities of this group, among others, breeding, egg production consumption, the production of eggs, production cockerel, chicken manure rejects and whose main activity is the production of eggs

konsumsi. Jenis farmed chicken is chicken arab. Total chicken arab owned as many as 1,061 birds in 2012. Marketing egg members through intermediaries and direct sales to consumers. Members of the group buying eggs at a price of 1,000.00 and sell it for Rp1.500,00. The difference in price received by the entitlement of the members. While the price of eggs sold directly to consumers by Rp1.500,00. Consumer eggs from KWTT consists of Hospitals in Purwokerto, stalls around the village, herbal shops, market traders and end customers. Byproducts KWTT "Women's Work" among others culled birds and chicken manure. Sales of culled birds is not routinely done, but at a certain period of time the chicken is no longer productive. Culled birds aged 18 months to 24 months. Culled birds sold for Rp25.000,00 per cow and consumers are eating houses and chicken traders. In detail the costs and revenues generated KWTT "Women's Work" in 2012 can be seen in Table 2.

Operational costs for the chicken farm is divided into fixed costs and variable costs. Fixed costs consist of: depreciation costs enclosure, depreciation of tools, land lease, chicken mortality rates and labor costs. The variable cost consists of: poultry, chicken feed, electricity, vitamins, medicines, disinvektan, plastic, administrasi. Biaya cost includes the purchase of bran feed, concentrates and jagung. Ayam DOC given rations of about 50 grams / head / day and chicken growers about 70 grams / head / day. While the chicken until the chicken layer pullet feeding is given twice a day given twice daily as many as 80

gram / head / hari. Jumlah expenses incurred during the year in 2012 amounted Rp134.439.300,00 with a percentage of 47% came from fixed costs and 53% is a variable variabel. Biaya costs for feed and medicine per chicken at Rp692 , 00. In addition to receiving income from the difference between the sales price of chicken, member KWTT "Women's Work" also received monthly wages given by Rp70.000,00 per person.

Normal egg production in 2012 as many as 142 250 items with a sales price per butir 1,000.00. Eggs damaged as many as 2,289 eggs with Rp800,00 selling price per item. 883 tail culled birds sold for Rp25.000,00 per cow and chicken manure as much as 120 sacks were sold at a price Rp5.000,00 per sack. Total penerimaan group obtained from the sale of eggs, chicken and chicken manure rejected by Rp166.756.200,00. Total profits Rp32.316.900,00.

Table 2. Analysis of Revenues and Production Costs and Revenue KWTT "Women's Work" in 2012

Information	Results Analysis (USD)
Reception:	
sales of Eggs	
Normal	142 250 000
Broken Egg Sales	1.8312 million
Sales of culled birds	22.075 million
sales Stools	
Chicken	600,000
total Revenue	166 756 200
Cost:	
Fixed cost	63,186,471
variable costs	71,252,829
Total cost	134 439 300
	32.3169
profit	million

B. Feasibility

The purpose of doing business feasibility analysis is to assess whether or not the business is feasible to be developed in the future. The group's capital at the beginning of the formation of Rp1.500.000,00 are entirely derived from group membership dues with the initial population of 600 individuals. Formed capital currently reaches Rp110.000.000,00. The capital comes from membership fees in addition to also come from the state budget, the budget I, APB INBUP village in 2006. In 2007, the prize provincial level competition in 2008 and 2009 and PUAP 2010. The assumptions used in this study include: 1) Members KWTT "Women's work" to pay ground rent; 2) Members KWTT "Women's Work" started with the stuffed chicken pullet form; 3) Taxes are not taken into account, and 5) in the form of interest on deposits Menggunakan opportunity cost the average bank in Indonesia,

Table 3. Results Net Present Value (NPV), Internal Rate of Return (IRR), Net B / C and Average Rate of Return (ARR)

NPV (USD)	IRR (%)	Net B / C	ARR (%)
Value 8,170,876.09.	9.28%.	1.074	11.07%.

The results of the NPV at KWTT "Women's Work," which is calculated by using the social discount factor (df) by 6% (equivalent to interest on deposits 6% per year) amounted to USD 8,170,876.09. Enterprises chicken eggs on KWTT "Women's Work" based on the NPV declared eligible for the resulting NPV value greater than zero.

IRR is the difference between revenues and expenses have been calculated at present value so as to produce a present value of zero. IRR calculation performed several times in order to obtain a different NPV values, namely a positive NPV value and the NPV is negative. NPV dengan use df 6% yield value NPV Rp8.170.876,09 while using df 16% yield value of Rp (16,734,604.13). Based on the analysis results generated IRR of 9.28%. It gives a meaning that is based on the value of IRR poultry farm KWTT "Women's Work" are eligible to run because they are above the social values prevailing rate of 6%.

Net B / C show a comparison between the benefits and costs have been calculated using a discount factor. The results of the analysis of Net B / C on KWTT "Women's Work" by 1.074. This means that every capital invested IDR 1.00 it will generate a rate of return of Rp1,074. The results of calculation of Net B / C show that poultry farm business KWTT "Women's work is" feasible.

ARR calculation results during one year period amounted to 11.07%. This value gives the sense that for any value of 1,000,000.00 invested in laying hens at the farm KWTT "Women's Work" will provide an average rate of profit of Rp110.700,00 annually. This value is higher when compared to the investment in the form of deposits which had a return of 6% per year.

CONCLUSION

From the results of research and discussion about the chicken farm petelur KWTT "Women's Work" in Banyumas can be deduced as follows: Enterprises poultry farm KWTT "Women's Work," a group effort that has paid dividends and feasible to develop sustainability.

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