

Financial Analysis of Minister of Agriculture Regulation no 49 / permentan/ pk. 440/10/2016 About the Ratio of Import Cattle

Tian Jihadhan W¹, Tri Satya Mastuti W¹, Diah Maharani¹, Endy Triyananto¹, I Gede Budisatria¹, Rochadi Tawaf²

¹ Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta, Indonesia.

² Faculty of Animal Science, Universitas Padjajaran, Bandung, Indonesia

Corresponding email: tianjihadhan@gmail.com

ABSTRACT

This study aims to analyze the effect of minister of agriculture regulation No 49 / PK. 440/10/2016 for the feedlot beef cattle company. This regulation is about pattern of ration import with the ratio of imports of feeder cattle and heifer is 5: 1 for the feedlot company and 10: 1 for farmers cooperatives. This study used financial analysis with price and cost production obtained from interviews with 9 companies in Java islands and Lampung province. Sampling was determined by purposive sampling study of 9 cattle companies respondents. Financial analysis of uses some parameter such as Net Present Value (NPV), Benefit per Cost Ratio (B/C ratio), Internal Rate of Return (IRR) and Payback Period with 12% per year of discount factor. The surveyed companies have a housing capacity scale of business between 5000 - 30,000 heads of cattle. The result of financial analysis is obtain with the simulation of housing capacity for 10,000 heads cattle. The results of financial analysis in accordance with the regulation No. 49 / PK. 440/10/2106 is NPV3.555.255.292, IRR- 2,91%, BCR1,04 and payback period 19,31 cyclus (6,44 years) years. It means that the regulation is not feasible for the feedlot cattle company that using intensive system for rearing cattle.

Keywords: Minister of agriculture regulation, Financial analysis, Import ratio, Cattle

INTRODUCTION

Indonesia is a country with quite high economic and population, growth rate of economic in first quarter of 2017 is 5.01% more higher than in first quarter of 2016 (BPS, 2017). This condition cause the increasing demand for livestock product. Red meat is an important part of traditional Indonesian food. The daily needs of beef in Indonesian increases every year, but the national production is only enough for 50.76% of the demand (Agus *et al.*, 2014). The gap between demand and supply of red meat is predicted until 2024 and only able to fulfill 42% of demands.

To fulfill the gap between supply and demand of red meat, government was imported buffalo meat from India. In addition to the import of buffalo meat from India, the government through the Minister of Agriculture issued Minister Regulation No 49 / Permentan / PK. 440/10/2016 about a regulation for Importing Livestock to Indonesia. In general, the purpose of regulation is to increase the stock of domestic cattle with the provision of import ratio of beef cattle and heifer is 5: 1 for the fattening company and 10: 1 for the farmer cooperatives. It means that the company should import 1 heads of heifer if they want to import 5 heads of feeder cattle, and farmer cooperatives should import 1 heads

of heifer if they want to import 10 heads of feeder cattle. If the company disobey for the regulations, they will be punished by the government.

The regulation of the Ministry of Agriculture is not easy to be implemented by the company and farmer cooperatives. Some of fattening cattle company do not have a competency and resources in breeding material and business, so it can be constrains for implement the regulation.

MATERIALS AND METHODS

Material

Materials required in this study were cattle fattening company located in Java and Sumatera and incorporated in GAPUSPINDO (Association of Indonesian Beef Cattle Company). The amount of the companies surveyed was 9 companies.

Method

This study was conducted from March to May 2017 in Java island and Lampung province. Java island and Lampung province was selected because there are central area for feedlot cattle company in Indonesia. The sampling method used in this study was, purposive sampling. The farm capacity of a company that surveyed is start from 5000 until 30000 heads of cattle. The method that used in this study was an interview using a questionnaire. Questionnaires was about the costs and revenues earned by cattle fattening companies. Data of cost and revenue were analyzed with microsoft excel to know the parameter of financial analysis.

RESULTS AND DISCUSSION

The data obtained during this study can be seen at Table. 1 and Table 2.

Table 1. Component of cost in feedlot company

| No. | Component of cost | Cost in Rupiah (000) |
|-----|--|----------------------|
| 1 | Average price live weight per kg | 39.9 |
| 2 | Average price of feeder cattle per head | 11.97 |
| 3 | Average price of heifer per head | 14,962.5 |
| 4 | Feed cost for feeder cattle per day | 34.8 |
| 5 | Feed cost for heifer cattle per day | 22 |
| 6 | Import cost for feeder cattle | 281 |
| 7 | Import tax for heifer 5% from price | 748.125 |
| 8 | Handling cost for heifer cattle | 1,000 |
| 9 | Operational cost per head per day (water, electricity, gasoline) | 1.5 |
| 10 | Medicine cost per head per day | 0.5 |
| 11 | Investation for feeder cattle housing | 24,375,000 |
| 12 | Investation for heifer cattle housing | 25,000,000 |
| 13 | Operational equipment and additional building | 3,500,000 |

Source : Primary data (2017)

Table 2. Component of revenue in feedlot company

| No | Component of product | Price in Rupiah |
|----|---|-----------------|
| 1 | Live weight cattle (Rp./kg) | 45,000 |
| 2 | Price of heifer in live weight (Rp./kg) | 43,000 |
| 3 | Male calf weaned (per head) | 8,000,000 |
| 4 | Female calf weaned (per head) | 7,500,000 |

Source : Primary data (2017)

Table 3. Parameter of financial analysis

| No | Parameter | Value |
|----|----------------|---------------------------|
| 1 | BC ratio | 1,04 |
| 2 | IRR | - 2,91% |
| 3 | NPV | 3.555.255.292 |
| 4 | Payback period | 19,31 cyclus (6,44 years) |

Source : Primary data processed (2017)

This study was conducted with simulation of the housing capacity for 10,000 heads and the company's project duration is for 5 years (15 cycles). Duration for one rearing cycle is 4 months or 120 days, while for the breeding will be kept for up to 16 months. After calving period, the breeding cattle which has a good production performance will be kept in the farm, but if the breeding cattle has a less performance, the cattle will be sold or moved out from a farm.

According to Kadariah (2001), there are parameter for assess the project like Net Present Value (NPV), Benefit Cost Ratio (B/C Ratio), Payback Period and Internal Rate Ratio (IRR). These parameters are used to evaluate the project is feasible or not feasible to execute.

In Accordance with the simulations of housing capacity per 10.000 heads, the results of financial analysis obtain the value of B/C ratio is 1.04 (Table 3). Nitisemito and Burhan (1995) and Soekartawi (2002) said, a project is feasible to do if the project have a B/C ratio more than 1 (> 1). If the B/C ratio is less than 1 the project is not feasible.

Meanwhile, the value of Net Present Value (NPV) is 3,555,255,292 (Table 3). According to Pudjosumarto (2002), the criteria for a project are acceptable if the NPV bigger than 0 (positive), if the NPV value of a project is less than 0 (NPV <0) means the project is not feasible. The result of Internal Rate Ratio (IRR) is - 2.91%. Pudjosumarto (2002) stated that the IRR value shows the ability of a project to produce returns or the level of profit that can be achieved. The IRR's investment criteria provide guidance that the business or project will be feasible if executed. The value of IRR is feasible if greater than the discount factor that obtained by bank, if the IRR value is less than the discount factor it's mean that the project is not feasible to be chosen.

The next parameter is payback period. Payback period is the period of time required to recover all expenses incurred during the project. The payback period in this study is 19.31 cycles or 6.44 years (Table 3). It means that if a company execute the regulation with intensive system of rearing cattle, they can just return all expences after 6.44 years. This value of payback period is longer than lenght of project simulation period.

According to financial analysis parameter, the result said that is improper, due to the minus (-) IRR value and payback period beyond the rearing cattle project period. Having obtained the value of financial analysis such as the above parameters can be said intensive beef cattle intensive system and in accordance with the Ministerial Regulation No. 49 / PK 440/10/2016 is not feasible.

CONCLUSIONS

This study conclude that, the regulations of Minister of Agriculture No. 49 / PK 440/10/2016 regarding the ratio of importing heifer and feeder cattle is not feasible to be implemented for feedlot cattle companies who used intensive rearing system.

REFERENCES

- Badan Pusat Statistik. 2017. <https://www.bps.go.id/Brs/view/id/1364>. Indonesia. Accessed on August 2017
- Kadariah.2001. Evaluasi Proyek Analisis Ekonomi. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia. Jakarta.
- Nitisemito, A.S. dan U. Burhan. 1995. Wawasan Studi Kelayakan dan Evaluasi Proyek. Bumi Aksara, Jakarta.
- Pudjosumarto, M. 2002. Evaluasi Proyek Uraian Singkat dan Soal Jawaban. Liberty, Yogyakarta.
- Soekartawi. 2002. Prinsip Dasar Ekonomi Pertanian. Raja Grafindo Persada, Jakarta.