Competitiveness of Beef Cattle Fattening in Kulo Subdistrict, Sidrap District South Sulawesi

Sitti Nurani Sirajuddin, Aslina Asnawi, Ilham Rasyid, Azmi Mangalisu, Masnur

1Department of Social Economic, Faculty of Animal Science, Hasanuddin University, Makassar, 90245 Indonesia
2Department of Social Economic, Faculty of Animal Science, Hasanuddin University, Makassar, 90245 Indonesia
3Department of Social Economic, Faculty of Animal Husbandry, Universitas Hasanuddin, Makassar, 90245 Indonesia
4Graduate of Technology and Animal Science, Faculty of Animal Science, Hasanuddin University, Makassar, 90245 Indonesia
5Graduate of Technology and Animal Science, Faculty of Animal Science, Hasanuddin University, Makassar, 90245 Indonesia

Address For Correspondence:
Sitti Nurani Sirajuddin, Department of Social Economic, Faculty of Animal Science, Universitas Hasanuddin, Makassar, Sulawesi Selatan, 90245, Indonesia
Tel:+6281389654334; E-mail: sitti_nurani@yahoo.co.id

This work is licensed under the Creative Commons Attribution International License (CC BY).
http://creativecommons.org/licenses/by/4.0/

ABSTRACT
The research was aimed to analyze competitiveness of fattening beef cattle fattening in Kulo subdistrict, Sidrap District. The research was conducted April to June 2015. Data analysis method used was the Policy Analysis Matrix (PAM). The result of research was revenue of beef cattle fattening in Kulo subdistrict Sidrap district was positive (> 0), means that beef cattle fattening provide financial benefits to the farmers and revenue was also high. The government's policy toward beef cattle fattening may be the policy of the output-input. Based on the ratio indicators PAM models, private prices was higher than the social price.

KEYWORDS: Beef cattle, Kulo, Policy Analysis Matrix, government policy.

INTRODUCTION

In line with population growth and increased revenue Indonesian society, demand for products from livestock, especially beef also increased. It was characterized by the trend of increased consumption of meat in Indonesia, which is illustrated by the increase in the rate of slaughter cattle in the last five years.

Beef cattle fattening have a bright future because some ASEAN countries are now more like beef from Indonesia. Policy development of beef cattle business has basically correlation and synergistic relationship with agriculture, especially food crops, agricultural waste given in substance is the raw material (feed) of the cattle business [10].

Livestock as one of the agricultural sub-sector was an integral part of the success of the sector in Indonesia. The vision of agricultural development was a cultured livestock industry by industrial base. Productivity and sustainable. Agriculture future was faced with fundamental change because of the changes in the global economy, biological technology development, various international agreements, product demand, product packaging and enviromental sustainability. Concretely, Indonesia livestock will be compete with other countries livestock not only seize the international market but also the domestic market in Indonesia [12,1].

In order to achieve these development goals, todays livestock have been directed towards developing in more advanced livestock with the area approach the production center which is concerned development in certain areas, using appropriate technology and implementation of a new runway; efficiency, productivity and sustainability [14].
In addition to producing meat by-products that needed by society was like manure, skin, bone and so can provide additional income. Feces has economic value, because it includes the organic fertilizer needed all kinds of plants. Feces can be a source of nutrients that can improve soil structure so it becomes more loose and fertile so fattening cattle is considered to provide maximization profit. However, it is necessary efforts to increase the production and productivity of the population of cattle to stimulate the development and success of the beef cattle breeding and preparing livestock resources in the future.

Beef cattle raising effort is an attempt to improve productivity beef as optimally as possible. Cattle business with an intensive pattern had used technologies intensively. By combining technology, capital, and resources in order to obtain optimum output. One of area hat used system intensively is district Kulo in Sidrap regency South Sulawesi Indonesia. Sidrap regency had the farm-known; various types of livestock are kept by the local community. With the development of the livestock sector in District Kulo, it will encourage and reflect the potential development of livestock commodities and creation of investment opportunities.

The problems that arise in beef cattle fattening was how the level of competitiveness of beef cattle fattening in then refers to the government's policy on the development of beef cattle

Data Analysis Method:
The research was conducted was April to June 2015 in Kulo district, Sidrap Regency. Data analysis method by using the Policy Analysis Matrix (PAM) was method not only used to measure comparative advantage (social advantage), but also to measure the impact of government intervention in an economic activity (in this case fattening cattle). In this study, the PAM method to use to conduct economic studies fattening cattle. PAM can also be used to analyze these cattle operations, as a system which includes the handling, processing, and marketing. Size profit and net transfers are the most important results of the analysis in a PAM analysis. Despite a PAM format enables the analysis was broken down by revenue and cost components making it possible to measure the output of the transfer, the transfer input and transfer domestic factors

RESULTS AND DISCUSSION

Competitiveness and levels of Government Policy:
Efficiency and competitiveness of commodity beef cattle produced by farmers in Sidrap with a group of breeders of beef cattle were analyzed through financial benefits, economic benefits, and analysis of competitive and comparative advantage by using Policy Analysis Matrix. PAM matrix based on data on revenues and production costs are divided into two parts, namely the price of the private and social price. Each charge production in private and foreign economic divided into inputs (tradable), domestic (non-tradable), and taxes.

From the analysis matrix PAM can be obtained information on the efficiency and competitiveness of the beef cattle business and can see the impact of government policy on the development of the beef cattle business. Results of the analysis matrix PAM beef cattle can be seen in Table 1.

Table 1: Policy Analysis Matrix Cattle Fattening Sidrap Kulo District of South Sulawesi Province

<table>
<thead>
<tr>
<th>Component</th>
<th>Revenue</th>
<th>Input tradable</th>
<th>Domestik Factors</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privat</td>
<td>2,376,000,000</td>
<td>1,355,675,000</td>
<td>19,450,000</td>
<td>1,080,787,500</td>
</tr>
<tr>
<td>Social</td>
<td>2,133,220,000</td>
<td>1,678,060,000</td>
<td>6,770,000</td>
<td>403,551,000</td>
</tr>
<tr>
<td>Divergences</td>
<td>442,780,000</td>
<td>-(322,385,000)</td>
<td>12,680,000</td>
<td>677,236,500</td>
</tr>
</tbody>
</table>

Sources: Primary data (2015)

Based on Table 1. Revenue gives a positive divergence in beef cattle fattening at Kulo District of Sidrap. Breeders revenue was the sale of cattle and may change based on the selling price of cattle. The amount of revenue was affected by a long period of breeding. Profit of beef cattle fattening very volatile because of the cows price and the selling price of cattle were fluctuative. Negative divergences were shown in the tradable input feeder particular procurement. The price of beef cattle in the district pengemukan Kulo Sidrap was lower than social component. Also affect to the number of cattle will be breeded by farmers that impact to the procurement costs.

Other tradable input was a factor of production in the form of food, medicine, electricity, water, transport and taxes showed a positive divergence where as other production factors in beef cattle fattening in the district Sidrap Kulo was higher than the value of social component. This was affected by the source of feed for beef cattle fattening in the district Kulo Sidrap consists of elephant grass and concentrate were quite expensive in South Sulawesi.

The main domestic factors of labor and capital (depreciation cages and equipment) showed a positive divergence. The workers on beef cattle fattening in the district Kulo labor Sidrap use practicum students and 1 person workforce got salary was IDR. 1,000,000/month, so the labor costs for fattening IDR. 12,000,000/year plus the cost of labor that assumed the student practicum IDR. 500,000/month (IDR. 6,000,000/year) so the labor costs was IDR. 18,000,000/year.
Business capital for the cattle breeding includes the cost of depreciation of cages and equipment used in the beef cattle fattening in the district Kulo Sidrap was higher than the social comparison. The amount of capital used depends on the business scale in the beef cattle fattening. Depreciation of cage also depend on its materials cost. The equipment cost used was high because of the quality of equipment in District Kulo Sidrap lower than social component.

Positive divergence in beef cattle fattening at Kulo District of Sidrap also indicated earning business profits. Profits obtained from private higher than social comparison because of the cost cows more cheaper than the comparison factor. Competitiveness of beef cattle fattening at Kulo District of Sidrap was Table 2.

| Table 2: Ratio Analysis Model PAM Beef Cattle Fattening Sidrap Regency of South Sulawesi |
|---------------------------------------------|-------------------|
| Model Analysis Indicators PAM              | Value             |
| Output Protection Coefficient (NPCO)       | 1,21              |
| Input Nominal Protection Coefficient (NPCI) | 0,35              |
| Private Value Ratio (PCR)                  | 0,02              |
| Domestic Resource Value Ratio (DRC)        | 0,02              |
| Effective Protection Coefficient (EPC)     | 2,08              |
| Gain Coefficient (PC)                      | 2,68              |
| Subsidies ratio for Producers (SRP)        | 0,32              |

Sources: Primary data (2015)

Profit Analysis (Profitability):

Private Profitability (PP) was 1.080.787.500 where the PP > 0, that means commodities expense were normal has implications that it’s capable to compete with commodities/expansion. It was described by [11], private profit was an indicator of the competitiveness of commodity systems based on technology, the value of output, input costs and the transfer of existing policies. If private profits greater or equal to zero indicate that the private exploitation of commodity will be forwarded. Vice versa, if the value was less than zero then it was not qualified to deal with the commodity because it could cause harm.

Social Provitivity (SP) was 403.551.000 it means that the condition was no effect to the divergence of both government policy and market distortions cow fattening in Sidrap will suffer a loss so it was not worth continuing. It was described by [11], social profit is an indicator of competitiveness or efficiency of farming systems on condition there is no effect due to the divergence of both government policy and market distortions. If the value of the social benefit more than or equal to zero indicates that the economic exploitation of a commodity can be resumed. Vice versa, if the value is less than zero then it is not qualified to deal with the commodity because it can cause harm.

Comparative advantages or economic efficiency:

The value of comparative advantage or economic efficiency can be measured using the ratio of the value of Privat (PCR) and the ratio of the value of Domestic Resources (DRC). PCR value obtained was 0,02. This showed that the beef cattle fattening in the district Kulo Sidrap had a good competitive value, because PCR <1, with little value, then the competitive power beef cattle fattening in the district Kulo Sidrap big enough.

Comparative advantage was one indicator to assess whether the beef cattle fattening in Sidrap competitive and able to survive without government intervention. Comparative advantage can be seen from social benefits (SP) and the Domestic Resource Cost Ratio (Domestic Resource Cost Ratio/DRCR). DRCR value of beef cattle fattening in the district Sidrap Kulo was 0.02, which means that the DRCR <1. This indicates that the business was efficient in the use of domestic resources mean to have so producing their own competitiveness.

Government policy:

The government’s policy was based on the results of the application analys Policy Matrix (PAM) in beef cattle breeding business, namely:

1. Policies output:

The government’s policy in the output can be seen from two indicators by Transfer Output (TO) and Nominal Protection Coefficient Outputs (NPCO). The transfer value of output produced in beef cattle fattening in Sidrap is IDR 442.780.000. This means OT positive value showed the amount of transfer from the public to producers because people had to buy the output at a price higher than it should be so disadvantaged communities [7].

Ratio Policy Analysis Matrix for beef cattle fattening in the district Kulo Sidrap Nominal Protektion coefisien on Output (NPCO) was 1.21 means that the output obtained in cattle in the district Kulo Sidrap 98% was hight. On government policies, protection coefficient nominal output (NPCO) showed the value of 1.21. NPCO if the value was greater than one (NPCO> 1), then there were producers receive subsidies on the output of the government, because the government raised output prices in the domestic market higher than the world price (the price of inefficiency).
2. Policies input:

The government's policy was not only related to the output, but also policies related to the input. Policy applied in the form of restrictions on the volume of imports of cattle was actually government policy to protect business of beef cattle fattening. The government's policy on production inputs can be seen from the Transfer Input (TI), Transfer Factor (TF) and Nominal Protection Coefficient Inputs (NPCI) [14].

The analysis showed that the value of Input Transfer (TI) was (IDR. 322.385.000). This indicates the government subsidies to foreign input, so that farmers do not pay the full social sacrifices that should be paid. The subsidy given by the government led to profits earned in private is greater than without a policy.

Transfer Factor (TF) was a social price difference with the private prices received by farmer’s beef cattle in Sidrap for the payment of domestic production factors. TF value in this study was positive or 2.87. This means that the government policy to protect domestic producers by subsidizing inputs. Nominal Protection coefficient value input smaller than one (NPCI> 1) means that the government lower the price of foreign input tradable domestic market below the world price so low production costs and produce huge profits.

3. Policies input – output:

Effect of input-output policy can be explained through the analysis of Effective Protection Coefficient (Effective Protection Coefficient or EPC), Net Transfer (NT), Gain Coefficient (PC) and the ratio of subsidies for Producers (SRP). EPC values illustrate the extent to which government policy was to protect or inhibit domestic production [7].

EPC Value beef cattle fattening in the district Sidrap Kulo is 2.68, which means the effective protection coefficient value greater than one (EPC> 1) indicates that the impact of government policies provide support for domestic production activities. Gain coefficient value (PC) was an indicator that shows the impact of incentives on all output policies, policies of foreign inputs (tradeable) and domestic inputs. Value obtained was 2.69, which the PC <1. This value reflects that the benefits received by producers were greater than the net profit social.

The net transfer (NT) is the difference between private profits with net profit social. Net transfer value in Sidrap is greater than zero, IDR. 677.236.500, which means the addition of producer surplus caused by government policy which is applied to the input and output. The value also reflects that the impact of government policies on the input and output would increase the surplus of beef cattle fattening in Sidrap IDR. 677.236.500.

SRP value which allows a comparison of the magnitude of the economic subsidy for a commodity system. SRP value obtained was 0.32 or greater than 0, means the value of positive SRP (SRP> 0) that the government policy was valid for this cause businesses beef cattle fattening in the district Kulo Sidrap pay lower social costs.

Conclusions:

Revenue of beef cattle fattening in the district Sidrap Kulo is positive means that beef cattle fattening provide financial benefits to the farmers. Government policy on beef cattle fattening such as the output-input policy. Based on the ratio indicators PAM models, private prices were higher than the social price.

REFERENCES