

# Level of competitiveness of cattle fattening business in Gowa Regency

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FILE	COMPETITIVENESS_OF_CATTLE_FATTENING_BUSINESS_IN_GOWA_REGENCY.PDF (252.09K)	WORD COUNT	2154
TIME SUBMITTED	02-AUG-2020 04:18PM (UTC+0700)	CHARACTER COUNT	11495
SUBMISSION ID	1364958848		

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To cite this article: S Nurlaelah *et al* 2020 *IOP Conf. Ser.: Earth Environ. Sci.* **492** 012147

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## Level of competitiveness of cattle fattening business in Gowa Regency

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**Abstract.** This study aims to determine the level of competitiveness of beef cattle fattening business in Gowa Regency, South Sulawesi Province. This research was conducted in March 2018. Sources of data from primary data and secondary data. Analysis data with PAM(Policy Analysis Matrix). The results showed that the cattle fattening business in Gowa Regency had a competitiveness at South Sulawesi Province and provides benefits in its management and with government support

### 1. Introduction

In the current era of globalization, seeing the condition of livestock business which is still a side business or sideline with the main characteristics of the number of livestock kept is very limited and input input (technology) is still low. The scale of beef cattle business is generally between 1 and 4 per household of beef cattle farmers [1-2]. At the minimum level of maintenance, 6 cattle per household can be categorized as a small-scale beef cattle business, which is an economically oriented beef cattle business [3] and [4]

At present where the conditions of the people's livestock business in Indonesia face very tight competition in the country while abroad free trade is one of the biggest challenges of livestock products such as beef and milk [5]. There are various trade agreements that followed by Indonesia giving a signal that agricultural products including livestock products **1** must have competitiveness to face free competition globally. For that, it is necessary to know **the level of competitiveness of beef cattle fattening efforts in the** Samata Integrated farming system (SIFS) of Gowa district.

### 2. Materials and methods

Private data were obtained from primary data sourced from these farms whose data were data on costs and profits of beef cattle fattening in the Samata Integrated farming system (SIFS) of Gowa Regency, South Sulawesi. Meanwhile, social data was obtained from secondary data sourced from literature related to research in the form of **1** cost and profit data for beef cattle fattening in Karangploso District, Malang Regency, East Java. The **data analysis method used is the Policy Analysis Matrix (PAM)**. This PAM analysis **method is not only used to measure comparative advantage (social excellence), but also**



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measures the impact of government intervention on an economic activity (in this case the cattle fattening business).

**Table 1.** Identity of divergences in the policy analysis matrix.

	Income	Cost		Profit
		Tradable input	Domestic factor	
Private	A	B	C	D
Social	E	F	G	H
Divergence	I	J	K	L

### 3. Results and discussion

#### 3.1. Cow fattening system in Samata Integrated farming system (SIFS), Gowa Regency

In the beef cattle breeding system in Samata Integrated farming system (SIFS) is categorized in three ways, namely intensive, semi-intensive and extensive maintenance systems. Intensive care system, which is cattle kept, semi-intensive maintenance system, ie tenure, is kept at night and released in the grazing fields in the morning and an extensive maintenance system, which is cattle released in the grazing land. However, the fattening system that is applied to the maintenance of beef cattle in Samata Integrated farming system (SIFS), ie intensive pattern, is an effort to fatten beef cattle using technology that is carried out intensively. By integrating technology, capital and resources in order to obtain optimal output.

By impounding cattle for most of the day, it is supported by as much and as good feed as possible, adding to the selling value of the cattle. The feed used in this business is forage and concentrate. The feed is feed that is purchased in cash. Workers in this business use two workers, namely student workers who are not paid in cash, and wage workers who are paid according to an agreement from the farm with the workers. The student workforce is generally conducted by UIN Alauddin Makassar students.

Intensive care needs more regular and routine treatment in terms of health management, in this case cows need to be given some vitamins and drugs, starting when the animals come to be given worm medicine and some vitamins, giving vitamins and drugs based on the experience of farmers. Intensive maintenance requires some equipment to use a chopper machine and feed procurement using a bicycle car.

Electricity is one of the factors of production used by farmers, with the use of lamps for lighting, and the use of water machines in cleaning cages, cleaning cows and providing drinking water to livestock. Electricity costs are calculated by calculating how many watts are used for all usage for the cage then added to the percentage of the load costs used in the cage.

The cattle selling system is carried out in Samata Integrated farming system (SIFS) in Gowa Regency, South Sulawesi. Consumers or partners come to each place of intensive farmers and choose cattle to be purchased, then the consumers will transport them, so the farms no longer bear the costs transportation at the time of selling cattle.

#### 5.2. Input and Result of Policy Analysis Matrix

Based on the results of the PAM analysis above, it shows that income provides a negative divergence in beef cattle fattening in the Samata Integrated farming system (SIFS) of Gowa Regency. The total income is derived from the sale of cattle raised from maintenance. Farmer income can change based on the selling price of cattle. The amount of income is influenced by the length of the maintenance period. Revenue from beef cattle fattening is very volatile due to the price of feed and selling prices of flattening cattle that are fluctuating.

**Table 2.** Policy Analysis Matrix of Cattle Fattening Business in Samata Integrated farming system (SIFS), Gowa Regency, South Sulawesi.

	Income	Cost		Profit
		tradable Input	Domestic factor	
Private	375,000,000	180,850,000	18,450,000	175,700,000
Social	533,305,000	419,515,000	12,902,250	100,887,750
Divergence	-158,305,000	-238,665,000	-4,073,000	84,433,000

Negative divergence is shown in tradable inputs, especially going to procurement. The going price for beef cattle fattening in Samata Integrated farming system (SIFS) is much lower compared to social comparison. This happens because the going price in Malang Regency is higher than in Gowa Regency. Also influencing the large number of suppliers that will be maintained, of course, the greater the cost of procurement will have to be spent.

Domestic factors show a negative divergence in beef cattle fattening efforts in the Samata Integrated farming system (SIFS). Higher domestic factors are obtained from private with social comparators due to the tax costs used which are much more economical than those used by the comparator factors.

A positive divergence in beef cattle fattening in the Samata Integrated farming system (SIFS) is also shown in the business benefits gained. Higher profits are obtained from private with social comparison due to the cost of going to use a much more economical price compared to that used by the comparison factor.

**Table 3.** Analysis of PAM Model for Cattle Fattening Business in Samata Integrated farming system (SIFS), Gowa Regency, South Sulawesi

PAM Model Analysis Indicator Value	value (%)
Output Protection Coefficient (NPCO)	0.70
Nominal Input Protection Coefficient (NPCI)	0.43
Private Value Ratio (PCR)	0.13
Domestic Source Value Ratio (DRC)	0.10
Effective Protection Coefficient (EPC)	1.71
Profit Coefficient (PC)	2.24
Subsidy to Producer Ratio (SRP)	0.15

Matrix Policy Analysis Ratio for beef cattle fattening in the Samata Integrated farming system (SIFS) Nominal Protection Coefficient on Output (NPCO) is 0.70, meaning that the output obtained for cattle fattening in the Samata Integrated farming system (SIFS) is lower than the social comparison. In government policy, nominal output protection coefficient (NPCO) shows the value of 0.70. if the NPCO value is greater than one (NPCO > 1), then what happens is that the producer receives a subsidy for output from the government, because the government raises the output price on the domestic market above the world price (efficient price).

Nominal Protection Coefficient on Inputs (NPCI) which is 0.43, the value of this ratio is low which is influenced by the price of feed used in cattle fattening in the Samata Integrated farming system (SIFS) is lower than the feed price used by social comparison. The value of nominal input protection coefficient which is smaller than one (NPCI > 1) means that the government reduces the price of tradable foreign input on the domestic market below world prices so that production costs are low and generate large profits.

The value of comparative advantage or economic efficiency can be measured using the Private Value Ratio (PCR) and the Domestic Source Value Ratio (DRC). The PCR value obtained was 0.13. This shows that the beef cattle fattening business in Samata Integrated Farming System (SIFS) has a very

1 good competitive value, because  $PCR < 1$ , with a small value, the competitive power of beef cattle fattening business in the Samata Integrated Farming System (SIFS) Regency Gowa is quite large.

The DRC value of beef cattle fattening business in Samata Integrated farming system (SIFS) is 0.10, which means the DRC value  $< 1$ . This indicates that the business is efficient in using domestic resources, meaning that it has competitiveness so that it produces itself.

The effect of input-output policy can be explained through the analysis of Effective Protection Coefficient (EPC), Profit Coefficient (PC) and Subsidy Ratio for Producers (SRP). EPC values illustrate the extent to which government policies are protective or inhibiting domestic production [5].

The EPC value of the beef cattle fattening business in Samata Integrated farming system (SIFS) is 1.71, which means an effective protection coefficient value greater than one ( $EPC > 1$ ) shows that the impact of government policies provides support for domestic production activities. The profit coefficient (PC) value is an indicator that shows the impact of incentives from all output policies, foreign input policies (tradeable) and domestic inputs. The value obtained is 2.24 where  $PC > 1$ . This value reflects that the profits received by producers are greater than the net social benefits.

SRP value which makes it possible to make comparisons of the amount of economic subsidies for a commodity system. SRP value obtained is 0.15, which means it is greater than 0, which means a positive SRP value ( $SRP > 0$ ) that the current government policy causes beef cattle fattening businesses in the Samata Integrated farming system (SIFS) of Gowa district to incur costs. lower than the social costs.

#### 4. Conclusion

Based on the results obtained, the conclusion that can be given is that integrated beef cattle business provides benefits in its management and with government support.

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