An analysis of the comparative and competitive advantage of sago processing business

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Abstract. The purpose of this study was (1) To analyze the level of comparative and competitive advantage of sago processing enterprises in East Kolaka Regency? (2) Examine the impact of government policy on the comparative and competitive advantage of sago processing enterprises in East Kolaka Regency. The study employed the Policy Analysis Matrix (PAM) analysis. The population of the study was sago-processing farmers in the sub-regency of Tirawuta of East Kolaka regency. The samples were 15 respondents. The variables of the study were output price, foreign costs, domestic costs, private price, and shadow prices. The results showed that the sago processing business in East Kolaka Generally sago processing business in East Kolaka have a positive level of comparative advantage with the value of Domestic Resource Cost Ratio (DRCR) of 0.27 and has a positive level of competitive advantage with value Private Cast ratio (PCR) 0.31. This suggests that the sago processing business in East Kolaka feasible to develop even enhanced in the future. Government policies that have not been in favor of sago processing business in East Kolaka lead this comparative effort advantage tend to decrease with Effective indicator Protection Coefficient (EPC) of 0.76, while the output policy causes Transfer Input value of IT value of Rp. (134.900). This indicates the absence of a purchase price policy on output area (Aci sago).

1. Introduction

The agricultural sector now and the future is a primary sector in economic development in Indonesia. Most of the people live lihoodin the agricultural sector, the role of the agricultural sector not only in employment but also plays a role in the provision of food and contributor to foreign exchange through export performance. Agricultural development interpreted succeed if there is high growth in the agricultural sector and at the same time, there is a change in the conditions of peasant communities that are less well for the better.

Along with relatively high population growth, the need for food will increase. One of the efforts is to improve the food needs of agricultural development, namely towards food self-sufficiency. Southeast Sulawesi sago palm grows. Naturally, it is the excess of the sago palm. Currently, there are no people who do the cultivation of these plants.

Lack of public interest in the utilization of sago area is due to the low ability in processing sago palm. Sago processing industry in Southeast Sulawesi largely owned by farmers sago. The existence of these industries can provide new jobs in the agribusiness sector.

Aci sago producer in Southeast Sulawesi, among others, are listed in Table 1 with details of the area and the level of aci sago production potential to be developed to increase exports aci sago.
Statistics Import-Export and Trading Inter Southeast Sulawesi Island 2013 indicate that export reached 671.50 tons sago or 6.17% [1].

Table1. Summary of Total Area and Sago Crop Production in Southeast Sulawesi province in 2013

| No | Year | Area (Ha) | Production (Ton) |
|----|------|-----------|------------------|
| 1  | 2010 | 5.288     | 6.165            |
| 2  | 2011 | 4.950     | 6.153            |
| 3  | 2012 | 5.024     | 6.200            |
| 4  | 2013 | 5.062     | 6.246            |

Source: Department of Crops and Horticulture in Sultra/Statistics Year 2013

Based on statistical data in 2013, it showed that Kolaka East in terms of area sago, Kolaka is in the ranks third with a percentage of 16.28% of the total area of Southeast Sulawesi Province. Aci sago production in East Kolaka reached 2627.29 tons or 42.06% of the total production of Southeast Sulawesi province. This shows that the Kolaka East has the advantage of producing sago aci is high enough level of production compared with the district/city in Southeast Sulawesi.

Aci sago producer in Southeast Sulawesi is in some areas one Kolaka East. This area is the largest producer of sago aci throughout the District who is in Southeast Sulawesi, and most of the population depends on agriculture, especially on sago. Development aci processing sago quite bright because of the sago palm is agricultural commodities that have the advantage that naturally grows in this area. Economically equipment used in the extraction process sago stems to produce sago aci in expensive and easily available in the local market.

Aci sago production generated in the processing industry in the District Tirawuta has not been optimal due sago plant processed only available in nature. Lack of knowledge about the production process of the good that is in the aci sago processing quality, weak capitalization farmers, land that thus has been converted into a rice paddy and the lack of information for individual private entrepreneurs (investors) of the financial and economic feasibility. Good sago processing will produce sago aci quality. This is expected to increase the value of sago aci advantage in terms of comparative and competitive advantage. Through the analysis of sago processing business excellence in the District Tirawuta expected to compete with sago aci aci sago produced in other areas. If the attempt to do so is expected to increase the income of farmers and processing sago and local revenue and national income.

Problems encountered sago processing business is how aci sago can become the main export products are able to excel in terms of comparative and competitive. Both of these advantages in terms of quality, quantity, and efficient level of production factors that exist in the country. Analysis of comparative and competitive advantages is a tool to measure the competitiveness of a product. Products with the stability of comparative and competitive advantages which have high potential to improve productivity and ease to reach the level of competitiveness is better. Sago processing business development in East Kolaka there are several strategic plans adopted by the local government, namely, the development of product quality and the performance of refined products through improved processing technologys ago as a food ingredient as well as the development of agribusiness and agro-industries ago competitive and sustainable.

Competitive advantage or competitiveness is a concept that states the ability of a manufacturer to produce a commodity with fairly good quality and production costs are quite low, so at prices that occurred in the international market, the commodity is produced and marketed by the producers to make a profit sufficient, so as to maintain continuity of production costs [2].

A commodity has a competitive advantage and comparative advantage if the commodity can be profitable and can compete in the domestic market and international market. A commodity may have a comparative advantage and competitive advantage simultaneously. Therefore, when a commodity only
has a comparative advantage that these commodities will hamper production activities in the event of market distortions that country and when a commodity it has a competitive advantage it needed the government's policy to protect the commodity.

Observing the potential aci sago produced in East Kolaka largely is still using simple traditional processing methods. For that reason, the purpose of this study was to analyze the comparative and competitive advantages, and how the impact of government policies related to the increase in business.

2. Methods
The research location is in Kolaka East, as aci sago production centers. The population in this study were farmers who had sago processing business. The sample in this study amounted to 15 people who are all farmers who have sago processing business.

The research variables include:
- The output price, namely acceptance of the sales price aci sago (USD / kg).
- The cost of foreign (tradable inputs), namely the costs of production inputs that can be traded in the international market, namely fuel, production machinery, mowers / sensor, generator, water pump machine.
- The cost of domestic (non-tradable inputs), which costs consist of various types of processing input/output that can not be traded on the international market, namely labor, taxes and production equipment namely buckets, machetes, hoes, sacks, filter, bathtub extraction, precipitation tub.
- The price of private, namely calculation price is right - it can be accepted or issued by the sago processing businesses.
- The shadow price is the price that would occur in an economy when the market is in a state of perfect competition and in equilibrium.

The data used in this study, there are two kinds, namely primary data and secondary data (Table 2). Primary data will be obtained directly from the source, namely the respondents (processing sago chosen as a sample), through questionnaires/questionnaire. Secondary data were obtained from the village office, district office, Tirawuta Agricultural Extension Center, as well as through the study of references/literature (books of literature and research reports/studies of bodies/institutions /agencies concerned.

Table 2. Types and sources of research data

| Types of Data     | Data                                      | Source              |
|-------------------|-------------------------------------------|---------------------|
| Primary Data      | The number and cost of Labor              | Samples             |
|                   | The number and price of fuel              |                     |
|                   | The number and price of Processing Machinery and Equipment |         |
|                   | The number and price of Raw Materials     |                     |
|                   | The number and price of Packaging         |                     |
| Secondary Data    | Price FOB                                 | Departement of Trade and Industry |
|                   | Price CIF                                 |                     |
|                   | Area and Production                       | The Plantation Office |
|                   | Production                                | BPS                 |
|                   | Export                                    | BPP                 |
|                   |                                           | Books literature    |

2.1 Processing methods and data analysis
Data analysis included quantitative method. Quantitative methods of data processed with the help of computers using the Microsoft Excel program and input-output tables for allocating costs and tradable and non-tradable components. While the analysis techniques use the policy analysis matrix (PAM) or Policy Analysis Matrix [3]. With models such as Table 3.

Table 3. Policy analysis matrix (PAM)

| Description        | Acceptance (Rp) | Cost | Advantages (Rp) |
|--------------------|----------------|------|-----------------|
|                    |                | Input Tradable (Rp) | Input Non Tradable (Rp) |                |
| Price Privat       | A              | B    | C               | D               |
| Social Prices      | E              | F    | G               | H               |
| Policy Impact      | I              | J    | K               | L               |

Source: Monke and Pearson (1989)

A is acceptance sago processing business in private; B is the total cost of tradable sago processing business in private; C is the total cost of non-tradable sago processing business in private; D is the level of profits in private; E is sago processing business reception at social price; F is the total cost of tradable sago processing business at social price; G is the total cost of non-tradable sago processing business on a social price; H is the level of profits in social; I is Transfer outputs (A-E); J is transfer input (B-F); K is Transfer factor (C-G); and L is the net transfer (D-H).

Based on the data in the table above PAM, next can be analyzed by a variety of indicators as follows: Gain Analysis, Analysis of Comparative Advantage, Competitive advantage Analysis, Policy Impact Analysis Output and Policy Analysis of the impact of input.

The steps are taken to build a model of PAM in this study areas follows:

- Identify the input and output of the sago processing business.
- Determine the shadow prices of inputs and outputs sago processing business
- Separating elements into the cost of foreign groups (tradable) and domestic (non-tradable)
- Calculate reception sago processing business
- Calculate and analyze various indicators of comparative and competitive advantages of sago processing business based PAM
- Analyze the impact of government policy, namely the overall starting price policy input, output pricing policies, and policy input-output.

2.1.1 PAM of the data in the table above can then be analyzed by a variety of indicators as below.

1) Analysis of Advantages

Advantages of Private or Private Profitability (PP)

\[ D = (A) - (B) - (C) \]

Revenue Privat – Input Costs tradable Privat – Input Costs Non Tradable Privat

Social profit or Social Profitability (PS)

\[ H = (E) - (F) - (G) \]

Social = Revenue – Cost of Tradable Social Input – Input Costs Non – Social Tradable

2.1.2 Analysis of Comparative Advantage

Indicators of comparative advantage is DRCR, if the ratio of domestic resource cost is less than one (DRCR < 1) means the processing sago production system more efficient in other words, the product has a high comparative advantage, so it is more efficient when produced in the country compared to the import or have high export opportunities, otherwise if the ratio if the ratio of domestic resource cost is greater than one (DRCR > 1), the production of sago processing system does not have a
comparative advantage so as better to import than produce its products such as in efficient in its use of domestic resources costs. DRCR calculated by the formula [3]

$$\text{DRCR} = \frac{G}{E - F} = \frac{\text{Input Costs Non - Social Tradable}}{\text{Social Revenue} - \text{Cost of Tradable Social Input}}$$

criteria
- $$\text{DRCR} < 1$$ means efficient or superior to comparative
- $$\text{DRCR} > 1$$ means inefficient or superior to comparative

### 2.1.3 Analysis of Competitive Advantage

Private expense ratio is the ratio between the cost of domestic factors with a value-added output of domestic costs that are traded in private (financial). Private Value Cost Ratio (PCR) shows how much the sago processing production system can produce to pay domestic factors and remains competitive conditions. If the value of the private cost ratio less than one ($$\text{PCR} < 1$$), then the processing production system able to finance domestic factors. PCR value is an indicator of the competitive advantage of a product, the smaller the value of PCR; the product is getting a competitive advantage. PCR value calculated by the formula [3].

$$\text{PCR} = \frac{C}{A - B} = \frac{\text{Input Costs Non Tradable Privat}}{\text{Revenue Privat} - \text{Cost of tradable Privat Input}}$$

criteria:
- $$\text{PCR} < 1$$ means competitive
- $$\text{PCR} < 1$$ means not competitive

### 2.1.4 Policy Impact Analysis Input

Transfer input is the difference between the cost price based on the financial and social costs of inputs on the price. IT value indicates the government's policy on tradable inputs. If the value of the transfer of the positive input ($$\text{IT} > 0$$), indicates a social price lower foreign input. Conversely, if the transfer of the input is less than zero ($$\text{IT} < 0$$) indicates the existence of government subsidies to foreign inputs. IT value is calculated using the formula [3].

$$\text{IT} = J = B - F$$

$$\text{IT} = \text{Cost of tradable Privat Input} - \text{Input Costs Social Tradable}$$

Input nominal protection coefficient is the ratio between the input cost price based Tradable financial and tradable input costs based on social price. If the NPCI value greater than one ($$\text{NPCI} > 1$$), means that the government raised foreign inputs (tradable) in the domestic market as a result the production costs become higher, otherwise if NPCI less than one ($$\text{NPCI} < 1$$) means that farmers receive subsidies on foreign inputs so farmers can buy foreign inputs (tradable) at a lower price. NPCI value calculated by the formula [3].

$$\text{NPCI} = \frac{B}{F} = \frac{\text{Cost of tradable Privat Input}}{\text{Input Costs Social Tradable}}$$

Transfer factor is the price difference with the price of private social received by producers for pay sago processing production factors that are not traded on the international market (domestic input). Value transfer factor indicates the government's policy towards domestic input protective, government policy for domestic input, usually in the form of subsidies or regulation if the value of the transfer factor greater than zero ($$\text{FT} > 0$$) means no government policy to protect domestic input producers. FT value calculated by the formula [3].

$$\text{FT} = K = C - G$$

$$\text{FT} = \text{Cost of Non} - \text{Tradable Privat Input} - \text{Input Costs Non} - \text{Social Tradable}$$

### 2.1.5 Impact Analysis Output Policy

To determine government policy on output, it can be seen from two indicators: output transfer (OT) and coefficient of nominal output protection.
Value transfer output (OT) shows that government policies are applied at the output, OT value is greater than zero, or positive (OT > 0) shows the magnitude of the public or consumer incentives to producers. If the OT value is less than zero or negative (OT < 0) then there is the public or consumers receive incentives from the manufacturer, in this case, the producers were harmed. OT values calculated by the formula [3]:

\[
OT = I = A - E = \text{Revenue Privat} - \text{Social Revenue}
\]

Protection of national output coefficient is the ratio between the receipt and acceptance by a financial price based social price. If the value of NPCO smaller than one (NPCO < 1) means a reduction in farmer acceptance due to their output policies such as taxes. While NPCO value greater than one (NPCO > 1) indicates that producers receive subsidies on the output of government. NPCO value calculated by the formula [3].

\[
NPCO = \frac{A}{E} = \frac{\text{Revenue Privat}}{\text{Social Revenue}}
\]

2.1.6 Impact Analysis Input-Output Policy

Input-output policy is an overall picture of the policies that have been applied if the impact of incentives or disincentives to the sago processing business.

a. Effective protection coefficient or Effective Protection Coefficient

Effective protection coefficient is an indicator of the overall impact of the policy input and output processing sago production systems in the country. If the value of the effective protection coefficient greater than one (EPC > 1) indicates that the impact of government policies to give support to domestic production activities. This means that there is a government policy aimed at protecting domestic production has been running effectively, otherwise if effective protection coefficient of less than one (EPC < 1) indicates that the policy does not work effectively. EPC value calculated by the formula [3].

\[
EPC = \frac{A - B}{E - F} = \frac{\text{Revenue Privat} - \text{Cost of tradable Privat Input}}{\text{Social Revenue} - \text{Input Costs Social Tradable}}
\]

b. The net transfer or Net Transfer

The net transfer is the difference between the net benefits received by producers with the social net profit. NT value reflects the overall impact of government policy on the acceptance of farmers, whether beneficial or detrimental to farmers. If the net transfer value greater than one (NT > 1) shows that there are surplus producers caused by government policies that are applied at the input and output. EPC value calculated by the formula [3].

\[
NT = L = D - H = \text{Private Profits} - \text{Social Gains}
\]

c. Gain Coefficient or Profitability Coefficient

The gain coefficient is the ratio between net profit with net profit private social. If profit coefficient greater than one (PC > 1), shows that the overall policy of the government to provide incentives to producers. Conversely, if the value is less than one PC (PC < 1) means that government policies result in benefits received by producers is smaller than in the absence of policy. PC value calculated by the formula [3].

\[
PC = \frac{D}{H} = \frac{\text{Private Profits}}{\text{Social Gains}}
\]

3. Results and Discussions

Sago processing business in the study still showed a saving on production costs of components it is mainly in the use of domestic resources, namely labor and raw material production in the form of a tree price/sago trunk is still relatively competitive compared to the price of raw materials in other areas, as well as costs of its workforce because of the sago processing business is domestic inputs
(non-tradable) is very large compared to foreign inputs (tradable) so that the efficiency of domestic input costs make this effort will have a competitive advantage so that the business can continue to exist and continue to be made. Prices used as the basis for determining the output shadow price is the price of the border (border price).

Based on information and data obtained from the Department of Industry and Trade of Southeast Sulawesi province that export activity recorded last sago aci conducted in 2012. The export activities aci sago in the nearest port, namely Surabaya.

Based on data from the Department of Agriculture of Southeast Sulawesi Province, FOB price obtained aci sago in the Port of Tanjung Perak Surabaya in 2012 amounted to the US $ 245.6 per ton, then obtained a FOB price of Rp. 2,395 per kg. Furthermore, coupled with the costs of transport (to the provincial and district) Rp. 207 per kg, and the cost of loading and unloading at the port (truck losing) Rp. 22 per kg, according to the data IPCs (2012). I have thus obtained social price sago output shaft at the farm level amounting to Rp. 2,624 per kg.

The shadow price of skilled labor is equated with price aktualnya (private). As for unskilled labor (without the aid of tools or machine) the determination of the shadow price of labor by 80 percent of the prevailing wage rate [4]. If the current Eastern Kolaka daily labor wage that applies an average Rp. 60,000 per HOK, then the shadow price of an average of Rp. 48,000 per HOK. This is based on the assumption that there is a 20 percent opportunity cost of these farmers to earn income/employment outside sago processing business, or in other words, 20 percent of the opportunity cost is the amount of revenue outside business activities sago processing, for example, be traders, farmers, and planters.

Analysis of the financial and economic advantages of sago processing business provides a general overview and simple about the level of feasibility in Kolaka East, especially in the sub-district study sites. Besides private profitability (financial) are an indicator of the competitive advantages of commodity systems based on technology, the value of output, input costs, and the transfer of existing policies. While social profitability (economic) is an indicator of comparative advantage or efficiency of commodity systems on the condition, there is no distortion of the market and government policies.

Based on the results of calculations can be argued that both financially and economically sago processing business in Kolaka East over the past year showed a good level of feasibility. One simple indicator can be seen in the value of Revenue Cost Ratio (RC-ratio) greater than one. In addition to the earnings results of this analysis are also an indicator of private and social advantages in policy analysis matrix. Furthermore, the selling price economically aci sago received by farmers at social prices higher than the actual price (price private), which shows that the economic net income of Rp. 18.1778 million per period with RC 3.12-ratio greater than financially, amounting to Rp. 13.2844 million per year with RC-ratio of 2.70.

This fact shows that the sago processing business in East Kolaka still quite competitive because it is still quite large differences between social benefits with their private profit. It is still an opportunity to increase their income large enough if the markets are in a normal condition that private (financial) equal to the price of social (economic) so that the sago processing business in East Kolaka increasingly feasible to be developed in the future.

From the description above shows that the sago processing business in East Kolaka still more feasible to develop the feasibility larger because of the economic feasibility (RC-ratio of 3.12) and financially with RC-ratio of 2.70. It also confirms research conducted by [5] who argued that about the problems faced in agribusiness sago, if managed properly, it can encourage the improvement of economic sago all communities associated therein.

Social profitability indicates the comparative advantage of a commodity in the utilization of scarce resources in the country, while the private profitability of a product indicates a competitive advantage in utilizing the resources available in the country.

It is shown in Table 4, private profitability sago processing business in East Kolaka smaller than social profitability. The cause of the divergence is distorted government policies. Distorted policy implementation to achieve goals that are in efficiency (equity or food security), prevents an efficient allocation of resources and by it self would have disastrous divergence. For example, rice import
tariffs applied to increase farmers' income (equalization purposes) and increase domestic rice production (food security purposes), but on the other hand will lead to loss of efficiency when it replaces the price of imported rice were cheaper than domestic costs used to produce rice in the country, so there will be trade-offs [6].

Table 4. Results of Analysis of Policy Analysis Matrix sago processing business in Kolaka East.

| Description         | Acceptance (Rp) | Input Tradable (Rp) | Non-Tradable (Rp) | Advantages (Rp) |
|---------------------|-----------------|---------------------|-------------------|-----------------|
| Price Privat        | 20,400,000      | 1,035,600           | 6,080,000         | 13,284,400      |
| Social Prices       | 26,764,800      | 1,170,500           | 6,980,000         | 18,614,300      |
| Policy Impact       | -6,364,800      | -134,900            | -900,000          | -5,329,900      |

Policy makers should give particular weight to each conflicting objectives is to determine whether the import tariff policies need to be implemented or not. In theory, the most efficient policy can be achieved if the government can create policies that off set market failures and if the government can ignore then on-efficiency objectives and eliminate the distorted policies. If the act of creating efficient and eliminate policies that distorted policy can be implemented, then the divergence can be eliminated and the effect of divergence (divergence values in Table 5 will be zero). At such conditions, the values of the private parts (the first row of PAM) will be equal to the value of the social section (second row PAM), or in other words the income (revenue), the cost and profitability of private will be equal to the income, expenses and social profitability.

3.1 Comparative Advantage and Competitive

Under the PAM analysis, it appears that the value of PCR sago processing business in Kolaka East in the past year amounted to 0.31 categorized as having a competitive advantage because of the value of PCR <1. In other words, to increase the value-added output by one unit in private, then processing business sago in Kolaka East requires only additional cost domestic factor of 0.31 or less than one unit.

DRCR sago processing business in East Kolaka of 0.27 indicates that this business has a comparative advantage. This value means that to produce sago in Kolaka East requires only domestic resource costs by 27 percent to the cost of imports needed. In other words, every US$ 1.00 required to import these products, only domestic costs of US$ 0.27, which means that to meet the domestic needs, then Aci sago should be in its production in Kolaka East and need not be imported or imported from other regions or countries.

When compared with the results of research conducted by [7] in Konawe indicate that PCR value = 0.45 which means that although the sago processing business in Konawe still able to finance its domestic factors sago processing business in East Kolaka still more efficient. Like wise with DRCR in Konawe of 0.38 which shows that to produce sago in Konawe domestic resource costs by 38 percent to the cost of import, but when compared with the same effort in Kolaka East is still superior.

Based on the calculation result output transfer of Rp. (6,3648 million), -which shows that the farmers, as producers, receive a price lower output than world prices in 2014 is in the range of Rp. 2,600 to Rp. 2,700 per kg. This is consistent with data from field interviews, which showed that the highest selling price of products aci sago farmers in the study site in the past year on average only Rp. 2,000 per kg and the lowest Rp. 1,900 per kg.

Based on this, it is necessary for local governments to formulate policies that are more operation also that it can raise again the level of competitiveness of aci sago in Kolaka East.
Such policies include: 1) Eliminate or reduce market distortions in the market both input and output markets, such as controlling the purchase price and the sale price of input-output; 2) Streamline the research programs that are applied to technological innovation so that farming can directly benefit the farmers as well as afford able to budget farm owned by farmers; 3) Providing facilities and infrastructure that can improve the accessibility of the centers of production to input and output markets, such as the establishment of an auction market commodity that is sustainable.

3.2 Analysis of Impact of Government Policy

3.2.1 Output Policy.
Output Results Transfer (OT) sago processing business in East showed Kolaka -6.3648 million, meaning that the output prices on the domestic market are lower than international prices. This indicates at ax policy or levies on output that is charged to agricultural producers indirectly. In accordance with the facts on the ground that the government Kolaka levy regulations apply to some agricultural commodities including aci sago, where the actual cost of the fees charged to the traders, but indirectly it is farmers who traders bought cheaper aci sago (Rp.200-Rp.300 per kg) compared to there sale price (above Rp. 2,300 per kg). This is done with the hope to cover the fees that will be incurred later during transport out of the territory Kolaka East.

3.2.2 Input Policy.
Based on the results of sago processing business IT indicate negative values. It means that the implicit subsidy on tradable inputs (in this case the fuel) to be provided by the government each year. While NPCI which is a ratio to measure the input level of transfer shows that because of the subsidies, especially on fuel, the total cost of inputs by 100 percent of the cost is supposed to sago processing business that if the subsidy is eliminated.

FT value indicates that implicit subsidy to be provided to domestic factors (labor and capital) in 2014 amounted to Rp. 900,000 for sago processing business. These results indicate that there is still much-needed government subsidies for tradable inputs (fuel subsidies) annually for processing business processing sago so that farmers in East Kolaka can further reduce production costs in developing a business.

3.2.3 Input-Output Policy.
In detail, it can be argued that the value of the PC business of processing corn of 1.00 indicates that the ratio of sago processing business profit amounted to only 10 per centor negative NT (Rp.-5.3299 million) only bring profit ratio of 10 percent of the private price. Another notion that there is government policy or market distortions on the input and output as a whole is detrimental to farmers.

On the other hand the lack of government protection in sago processing business to the detriment of farmers, as a result, the production costs become greater effort, not to mention the added absorption and high labor costs further reduced the income of farmers of this sago processing business. The conclusion that the low level of government protection against aci results in sago farmers caused most of the government's policy regarding the sago processing business is run is not effective, as shown by EPC value less than one.

3.2.4 Alternatives Policy
Policy Analysis Matrix (PAM) has limitations as an analytical simulation are static so that the necessary changes to anticipate any changes that occur in a dynamic economic system. Changes in output prices of the local and international market, the elimination of input subsidies and rising labor costs will affect the changes in indicators of excellence. It is, therefore, necessary to look at the simulation changes the magnitude of change indicators of competitiveness, both competitive advantage (PCR) or comparative advantage (DRCR) an undertaking. The simulation results are shown in Table 5.
Table 5. Value PCR and DRCR Sago Processing Enterprises in 2013 and the Alternative Simulation Results Changes

| Policy Simulation                                      | Sago Processing  |
|--------------------------------------------------------|------------------|
| 2014 conditions (Before Simulation)                    | PCR      | DRCR    |
| Alternatives Policy                                    | 0.31     | 0.27    |
| 1 Output Price Down 30 %                               | 0.45     | 0.39    |
| 2 Wage Labor Up 30 %                                   | 0.33     | 0.28    |
| 3 Fuel Subsidy Down 30 %                               | 0.31     | 0.27    |
| 4 Output Prices Down 30 % dan Labour Wages Up 30 %     | 0.48     | 0.41    |
| (Composite 1 and 2)                                    |          |         |

Table 5 shows that prior to the simulation of changes to certain components, the value of PCR and DRCR sago processing business has a value of less than one, it means the condition before the change of policy components, sago processing business in a more efficient Kolaka either East financial or economics or have a competitive advantage and comparative advantage thus it is very feasible to be continued and developed in the larger business volume.

Aci sago simulation output prices as a decrease of 30 percent, the result both financially and economically sago processing business in East Kolaka still efficient with PCR 0.45 dan DRCR value of 0.39 (each less than one) that shows that if they are on the market conditions are unstable and declining output prices up to 30 percent, then the sago processing business in East Kolaka still deserves to be continued.

In the simulation of the increase in labor costs by 30 percent, the value of PCR DRCR 0.33 and 0.28 (each less than one) where it is also pointed out that despite the increase in labor costs by 30 percent, sago processing business The Kolaka East is still feasible to proceed due to the influence of the value of the PCR and DRCR still have a competitive advantage economically and financially comparative advantage.

Simulation of the subsidy in the form of reduction in fuel subsidies by 30 per cent obtained PCR values of 0.31 and 0.27 DRCR indicate that sago processing business remains efficient both economically and financially because of the value of PCR and DRCR each below one, meaning that this business is not affected due to the reduction in fuel subsidies. Even the decline in subsidies lead to efficiency and competitiveness has increased, so that this business will survive in spite of reduced fuel subsidies even the value of this indicator shows the effort more efficient that despite a decline in fuel subsidies, is still able to finance its domestic inputs.

4. Conclusion
The conclusions of this study, are: 1) In general, sago processing business in East Kolaka have a positive rate of comparative advantage with DRCR of 0.27 and has a positive level of competitive advantage with the PCR value of 0.31. This shows that the sago processing business in East Kolaka feasible to develop even improved in the future; 2) The government's policy is not in favor of sago processing business in East Kolaka lead this comparative effort advantage to decrease with EPC indicator of 0.76, while the output policy causes the value of IT Rp. (134.900). This shows the lack of policy purchase price of the output area (aci sago).

5. Reference
[1] Dinas Perkebunan dan Hortikultura Sultra 2013 Statistik Perkebunan 2012 Dinas Perkebunan dan Hortikultura Provinsi Sulawesi Tenggara Kendari
[2] Simanjutak S B 1992 Analisis Daya Saing dan Dampak Kebijaksanaan Pemerintah terhadap Daya Saing Perusahaan Kelapa Sawit Indonesia Disertasi Doktor Program Pascasarjana IPB
Bogor

[3] Monke, E.A and S.R Pearson 1989 *The Policy Analysis Matrix for Agricultural Development*. (Cornell University Press: Ithaca and London)

[4] Suryana 1980 *Keuntungan Komparatif dalam Produksi Ubi Kayu dan Jagung di Jawa Timur dan Lampung dengan Analisa Penghematan Biaya Sumber Domestik (BSD)* (Thesis Magister Sains Sekolah Pancasarjana Institut Pertanian Bogor)

[5] Saediman, S.A.A, Taridala and M Ono 2006 Sago Marketing Problem and Practices in Kendari District of Southeast Sulawesi *Journal Agriplus* vol. 16(1) p 1-7

[6] Pearson S R., C Gotsch dan S Bahri. 2005 *Aplikasi Policy Analysis Matrix pada Pertanian Indonesia* (Yayasan Obor Indonesia: Jakarta)

[7] Syarbiah S 2014 *Analisis Keunggulan Komparatif dan Kompetitif Usaha Pengolahan Sagu di Kabupaten Konawe* (Tesis: Program Pascasarjana Universitas Halo Oleo Kendari)