

Export Trend of Indonesian Cassava to The Republic of Korea and Malaysia

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Abstract— Indonesia is the third largest cassava exporter in the world. In the last 20 years, the Indonesian cassava exports was fluctuated and tended to decline, mainly to the Republic of Korea and Malaysia. The research purposes is to analyze trend exports of Indonesian cassava to The Republic of Korea and Malaysia, also the factors influence them. This research used secondary time series data during 20 years (1997-2016). The data analyses are trend and multiple linear regression. The research result shows that the trend of Indonesian cassava exports to the Republic of Korea is getting decreased with the equation $Y = -3262 X + 62741$. The result of regression analysis shows that the Indonesian cassava export to the Republic of Korea is influenced by inflation. Moreover, the trend of Indonesian cassava export to Malaysia is also getting decreased that is shown by the equation $Y = -49,916 X + 1037.7$. The decrease export to Malaysia is influenced by domestic price and inflation rate. So far, Indonesian people assume that cassava is an inferior good. Therefore the government have to change this assumption.

Keywords— Trend, export, cassava

I. INTRODUCTION

Exports activities was one effort to a countries to increase revenue of the afghan state and devoted to create the sustainability of economic activities for a country that there is an excess or excellence compared to other countries. Export activities can be transactions goods or servises. Goods are usually transacted in export includes activities of mining products, art, agricultural products and others [1].

Cassava is one of the potential exported commodities. Indonesian cassava most processes into a great variety of processed, in a foreign country usually processed into bioetanol. Position of the production of Indonesian cassava in the world is mentioned in Fig 1.

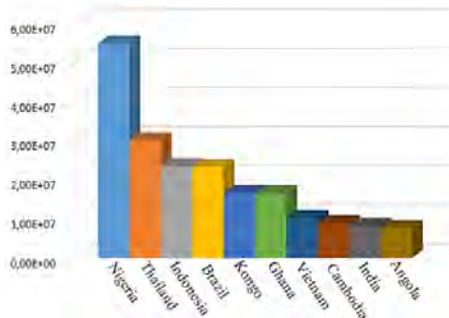


Figure 1. 10 Countries With The Production Of Cassava The Largest in The World [2].

Indonesia is the largest producer cassava third in the world, the exports Indonesian cassava was in place the world. The position of the exports of Indonesian cassava on the international market. Some countries importers Indonesian cassava among are Republic of Korea and Malaysia. Data exports growth Indonesian cassava to destinations country export presented in Table 1:

Table 1. Trend Exports Indonesian Cassava to Republic of Korea and Malaysia

Year (Ton)	Destination Country	
	Korea	Malaysia
2012	6,733.609	423.261
2013	14,280.688	108.811
2014	6,464.387	37.255
2015	49.079	158.118
2016	14.25	173.449

Source : WITS, 2017 [3].

Volume of exports Indonesian cassava in influctuation in destinations country, especially the country decreased in Republic of Korea and Malaysia, so interesting to research. The purpose of this research is to analyze: 1) Trend volume exports Indonesian cassava and influence factors in Republic of Korea 2). Trend volume exports Indonesian cassava and influence factors in Malaysia.

II. METHODS

This study uses secondary time series data with a periode of 20 years, starting from 1997 to 2016 Secondary data are obtained from various government agencies and related institutions, including the Ministry of Agriculture, Ministry of Trade, the Central Statistics Agency, FAO, ICO, UN Comtrade and literature studies as well as other information. Term limitation to avoid differences in perception include:

1. Volume is measured in tons. This study is attempted only to examine the dried cassava.
2. Value of exports and the price is expressed in US dollars.

Two methods are used in this research. First, to examine trend analyze is least square method, Mathematical is written as follows [4]:

$$Y = a + bX$$

Where:

X = Time

Y = Volume exports Indonesian cassava to destinations country.

a = Intercept

b = Trend volume exports

Second, regression analyze is independent variable to influence of volume dried cassava. Mathematical is written as follows [4]:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Volume exports Indonesian cassava to destinations country.

α = Regression coefficient

X1 = Productions Domestic cassava (Ton/years)

X2 = Price (USD)F

X3 = Inflation (%)

e = Random Error

III. RESULTS & DISCUSSION

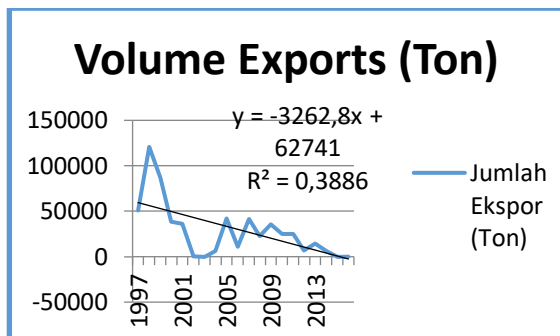


Figure 2. Grapic Value of Volume Exports in Republic of Korea

Based on the results of the analyze in figure 2 above trend, it can be seen that exports Indonesian cassava to the Republic of Korea having sort of bad thrend or descending form time to time. Figure 2 above show that equation export trend Indonesian cassava to the Republic of Korea is $Y = -3262,8X + 62741$. The trend is indicated that export Indonesian cassava to the Republic of Korea will decrease 3,262.8 tons of every year. The trend is indicated that exports Indonesian Cassava to the Republic of Korea has Experience decrease of 3,262.8 tons every year.

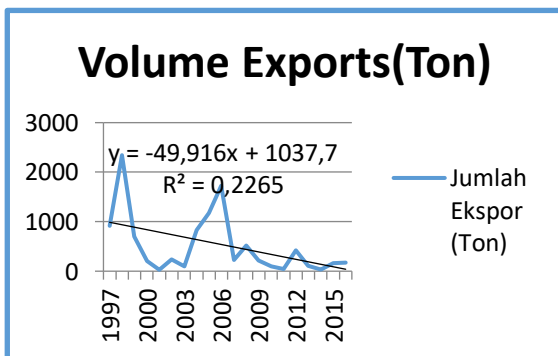


Figure 3. Grapic Value of Volume Exports in Malaysia

Based on the results of the analyze trend in figure 3 above it is known that exports Indonesia cassava to Malaysia having trend a negative or decline from time to time. Figure 3 above show that trend Indonesian cassava to Malaysia is $Y = -49.916X + 1037.7$. The trend is indicated that exports Indonesian Cassava to the Malaysia has Experience decrease of 49.916 tons every year.

Table 2. Result of Regression Analysis on Cassava Export to The Republic of Korea

Model	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
(Constant)	64023.105	62162.563	1.030	.319
Domestic Prod.	-0.002	0.004	-.437	.668
Price	51.545	84.215	.612	.550
Inflation	1590.285	454.815	3.497	.003
Korea GDP	-32.405	30.409	-1.066	.303

Source : Secondary Data, 2018

Table 2 shows the result of regression analysis of cassava export to Korea. The interpretation is mentioned below.

1. The variable domestic cassava production has no significant effect because the amount of cassava consumption in Indonesia also tends to increase from year to year, so exporters in Indonesia prioritize domestic needs rather than abroad.
2. The variable price of domestic cassava in Indonesia has no significant effect because the price of Indonesian cassava exports to the Republic of Korea is much cheaper than domestic prices (indicated by the conditions of 11 years from 20 years of the study period, the price of domestic cassava in Indonesia has more value large compared to the price of Indonesian cassava exports to the Republic of Korea). This causes many exporters to choose to sell cassava domestically or to other countries that have higher export prices than the Republic of Korea.
3. Inflation variables have a significant positive effect on Indonesian cassava exports to the Republic of Korea. This was caused by the decline in the rupiah exchange rate against the dollar, thus motivating exporters to export. Logically, the more they export, the more dollars they get, the more rupiah they will receive.
4. The Korean GDP variable does not have a significant effect due to the declining consumption of cassava in Korean society, besides that cassava is also not a staple food for Korean people (cassava for Korean consumption is the number 15 food commodity).

The discussion of the regression result is also supported by policy in The Republic of Korea. The tariff rate of 20% is charged to all type of cassava (fresh, dried, frozen, and processed). Moreover the import procedure is very strict [5].

Table 3. Result of Regression Analysis on Cassava Export to Malaysia

Model	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
	(Constant)	-1431.317		
Domestic Prod.	9.934E-005	0.000	1.350	.197
Price	-4.309	1.799	-2.395	.030
Inflation	38.088	8.458	4.503	.000
Malaysia GDP	3.829	2.858	1.340	.200

Source : Secondary Data, 2018

Based on the results of the analyze regressions in the table 3 above it is :

1. The variable domestic cassava production has no significant effect because the number of cassava consumption in Indonesia itself also enhancement have tended to be from year to year, so that the result of the prouction of cassava is mighty in Indonesia needs at home than abroad.
2. Domestic price variables have a significant effect because the difference between the export price of cassava cassava from Indonesia to Malaysia is much higher than the domestic price. This encourages exporters to export to Malaysia.
3. Inflation variables have a significant positive effect on Indonesian cassava exports to the Malaysia. This was caused by the decline in the rupiah exchange rate against the dollar, thus motivating exporters to export. Logically, the more they export, the more dollars they get, the more rupiah they will receive.
4. Malaysian GDP variable has no significant effect on Indonesian cassava exports to Malaysia. This is due to the inconsistency between the development of Malaysian GDP and the development of Malaysian cassava consumption.

Cassava have competitiveness in China. It is influenced by the cassava price in China, exchange rates, exported volume, production, and domestic price [6].

In the country of Brunei Darussalam, Korea, England, Malaysia and Hongkong having influence by distance of real economic, the rupiah exchange rate real, real good domestic price country of destination, the population and the prices of exports real [7].

Second of this research analyzed about the competitiveness of cassava, not one has researched the trend volume export as was the case with this research.

So far Indonesia still think that cassava as an inferior goods. Therefore the government had to remove this view, must take policies capable of harmonizing the price of producer and consumer of cassava in Indonesia that did not create the margin was to great and the government should issue a policy that were able to return the motivation for farmers to perform the activities of the cultivation of cassava in Indonesia it experienced an increase in.

IV. CONCLUSION

The trend volume export Indonesian cassava to Republic Korea has experienced a fall in. This is the result of the influence of real variable inflation while domestic production and the price is not had have real impact. The trend is indicated that exports Indonesian Cassava to the Republic of Korea has Experience decrease of 3.262,8 tons every year. Similarly with Malaysia has experienced a fall in. This is the result of the influence of real variable inflation and price while domestic production is not had have real impact. The trend is indicated that exports Indonesian Cassava to the Malaysia has Experience decrease of 49.916 tons every year.

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