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The Government Policy Effects of Highest Retail Prices on Rice Inventories at Wholesalers and Retailers in Palembang City

Winda Dwi Wahyuni[1], Andy Mulyana[2], Riswani[3]

[1, 2, 3]Master Program in Agribusiness, Faculty of Agriculture, University of Sriwijaya, Indonesia
Jl. Padang Selasa No. 524 Bukit Besar Palembang 30139 South Sumatera, Indonesia

Abstract: ***Food availability is one of the subsystems that must be fulfilled in order to strengthen household food security. The Government of Indonesia has established the Highest Retail Price Policy of medium and premium rices to protect majority of consumers as well as producers from price volatility. This study aims to determine differences in the availability of rice at the level of rice traders or sellers before and after the determination of the policy. This study was carried out in the city of Palembang, which is one of rice trading center cities with the existence many rice sellers, both wholesalers and retailers, and located in the center of South Sumatera Province. The sample consisted of 6 rice wholesalers selected using purposive sampling and 12 selected rice retailers using snowball sampling. The results showed that the inventory proportions of medium rice and premium rice at the level of wholesalers and retailers in Palembang City have changed after the determination of the highest retail price, that are the medium rice inventory tended to decrease, while the premium increased compared to the period of pre price determination.***

Keywords: rice, highest retail price, inventory, trader

1. Introduction

Food is the most basic human need so that the availability of food must always be guaranteed. If the food needs of the community were fulfilled, the community will have a good life and able to take a role in national development. Providing adequate, equitable and quality food for all of Indonesian is an important priority to realize food availability. Rice is basically a strategic commodity and is the staple food of people in Indonesia. The consumption of rice always increases every year followed by population increase. The efforts have been made to reduce the rate of consumption of rice such as the diversification of local food, but the consumption of rice still increases every year (Sunanda, 2008).

Increasing rice production aims to ensure the existence of a national rice stock. It is one of the efforts to increase the income and welfare of farmers and their household. But on the other hand, an increase in rice production is often faced with a number of problems such as the increase in production reached by farmers when harvesting in the area center of rice production is always abundant, while the monthly demand of rice is relatively stable. Based on economic law, when supply increase, ceteris paribus, price will decrease especially during harvest season. Rice will be abundant then the price of grain falls below the floor price and even to the lowest price, so it does not provide benefits to farmers. In the other hand, during the lean season, the rice production is not able to meet the needs then the price will increase until it is not affordable by consumers. The efforts to increase production and income of farmers and seller are faced by various challenges and problems. The efforts to increase income is important on the welfare of farmers and sellers (Sumaryanto and Sudaryanto, 2001).
The government of Indonesia has issued a policy to solve the problem, namely the highest retail price. It has been established since September 1st of 2017. The main objective of the policy is to protect farmers as producers of rice and sellers or customers so that production costs and the selling price of rice is balanced and also give benefit to sellers and national food security is maintained. The highest retail price policy is expected to be able to control production costs and grain prices received is enough to provide economic incentives to farmers.If the implementation of the policy runs effectively, it is expected to have an impact on the certainty of income of rice farmers and sellers. Rice price regulation that is able to distribute rice at a more fair and reasonable price, so that farmers as producers and consumers of rice are not harmed (Sudaya, 2011).

The highest retail price in Palembang was IDR 9,450/Kg for medium rice and IDR 12,800/Kg for premium rice. The price of rice after the establishment of the highest retail price policy on the market still tends to fluctuate. The retail price of rice at the beginning of the policy was IDR 10,525/Kg for medium rice and IDR 12,000/Kg for premium rice in September of 2017 and the retail price of rice in October of 2017 was IDR 10,900/Kg for medium rice and IDR 12,000/Kg for premium rice (Department of Agriculture for Food Crops and Horticulture, South Sumatra Province, 2017). The high market demand for rice was caused by the inventory in the market was not available, this was due to concerns among the authorities and importers in marketing imported rice (Johan, 2011).

Palembang is the capital of South Sumatra Province which does not have much rice production either wetland or fields. Based on data from the Central Bureau of Statistics in 2015, Palembang is an urban area and lack of agricultural land. It limits the people of Palembang to plant crops. Even though Palembang does not have many agricultural fields to plant rice, the consumption of rice in Palembang is very high. Palembang as a central area of government and a fairly

densely populated settlement makes consumption of rice in Palembang quite high. The total consumption of rice in Palembang reached 1,039,559 tons in 2015. It is the highest compared to other cities or regencies in South Sumatra Province (the Central Bureau of Statistics, 2015). This directly affects the demand and price of rice in Palembang.

To maintain the availability of rice in Indonesia, the role of the community and local government needs to be increased. One way to increase the availability of rice at the regional level is to plant rice and increase production (Sanny, Lim. 2010). The availability of rice will affect the price of rice while the price of rice is also affected by the prices of other goods and some government policies (Agus, 2016).

Palembang does not have extensive rice fields such exists in other regions. Palembang gets supplies of rice from other regions either from other districts in South Sumatra Province or from outside the Province and even imported from overseas (Siburian, 2008). Information about the availability of rice is very important to find out how the food conditions of a region. Until recently, rice managed by the government intended for several purposes, such as subsidizing the poor community, supplying military personnel, buffer stock can bebe easily identified through rice stock data at the National Logistics Agency. On the contrary, the rice stock held by the community, especially at the level of traditional market sellers, is still not quantitatively well informed. The stock of rice in the community is difficult to know because the data on rice stocks are not routinely available and rice stocks were not collected in one place but spread in several stockholders (Chalid, 2007).

The stock of rice in the community consists of rice inventory in producers, wholesalers, retailers, restaurants or hotels and processing industries. However, those who hold the most rice stocks in the community are wholesalers (Siburian, 2008). Based on the phenomena occurred above, it is necessary to conduct a study to determine the effect of the highest retail price establishment in rice sellers of Palembang.

2. Literature Review

Rice is a staple food consumed by people of Indonesia. Rice is distinguished based on its quality consisting of medium rice, premium rice, and special rice. The quality class is needed because of role and usefulness to provide justice and quality service for various consumer strata. The types of rice are grouped into three categories, namely: premium rice, medium rice, and special rice.

In fair transactions, a high-quality rice is given high prices and a low-quality rice is given a low price. However, to guarantee the price to consumers the highest retail price is established. The highest retail price of rice was valid on September 1st of 2017. According to the regulation of the Ministry of Trade No. 57/M-DAG / PER / 8/2017 concerning Establishment of the Highest Retail Price of Rice. The government must maintain rice price stability by considering policy factors that significantly affect rice prices, market operations, and rice imports. To be effective, it is necessary for market operations and rice policy rights in timeliness and quantity in policy implementation (Aryani, 2017)

Food availability is physical food availability in an area or region viewed from all sources, both domestic food production, food trade and food assistance. Food availability can be determined by several things such as food production in the region, food trade through market mechanisms in the region, stocks or inventory owned by sellers and government reserves and food assistance from the government or other organizations (Suryana, 2001).

3. Methods

3.1 Sampling Method

The population of this study was wholesalers and retailers of rice. The sampling method used in this study was purposive sampling to select rice sellers in Palembang. According to the Regional Company of Pasar Jaya (2018), Palembang has approximately 965 rice sellers with different locations. Determination of the sample as an informant from the rice sellers used in this study using purposive sampling to select 6 wholesalers and using snowball sampling to select 12 retailers in Palembang.

3.2 Data Collecting Method

This study was carried out by survey method. Data collection consists of primary and secondary data. Primary data was obtained from direct interviews with sample traders (wholesalers and retailers) using a questionnaire. Secondary data was obtained from Agricultural Office of Food Crops and Horticulture of South Sumatra Province, Office of Trade and Industry of Palembang City, Regional Company of Pasar Jaya, the Central Bureau of Statistics, and the others.

3.3 Data Analysis

Rice inventory at the level of rice traders in Palembang was obtained by summing the initial stock of rice with the purchase of rice and reducing the sale of rice. Thus, the inventory of rice formula can be calculated as follows:

$$KTB = SAb + SPb - Sj \quad (1)$$

Note:
KTB = Rice inventory (Kg/month)
SAb = Intial stock of rice (Kg/month)
SPb = Purchase of rice (Kg/month)
Sj = Sales of rice (Kg/month)

To determine the differences in the of rice inventory before and after the highest retail price policy by using parametric statistical analysis of 2 paired sample. So that it can be formulated as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r\left(\frac{s_1}{\sqrt{n_1}}\right)\left(\frac{s_2}{\sqrt{n_2}}\right)}} \quad (2)$$

Note:
t = t-test

$\bar{x}_1$ = Average of rice before the highest retail price policy established
$\bar{x}_2$ = Average of rice after the highest retail price policy established
S_1 = Standard deviation of rice before the highest retail price policy established
S_2 = Standard deviation of rice after the highest retail price policy established
S_1^2 = Varianceof rice before the highest retail price policy established
S_2^2 = Varianceof rice after the highest retail price policy established
r = Correlation between two samples

Hypotesis used is as follows :
Ho :$\mu_1 = \mu_2$
Ha :$\mu_1 \neq \mu_2$
α = 0,05 or 5%

The rules of decision used are as follows:
Ho= there is no difference in rice inventory before and after the establishment of the highest retail price policy
Ha = there is a difference in rice inventory before and after the establishment of the highest retail price policy

If t-test value < t-table, Ho is accepted, there is no difference in average between rice prices before and after the establishment of the highest retail price policy.

If t-test value > t-table, Ho is rejected, there is a difference in average between rice prices before and after the establishment of the highest retail price policy, or if Sig. (2 tailed) > α, Ho is accepted Sig. (2-tailed) < α, Ho is rejected.

4. Result and Discussion

4.1 The Rice Inventory at the Level of Wholesaler before and after the Policy

Based on the calculations, it is found that the of medium rice inventory before establishment of the highest retail price policy was higher than that of medium rice after policy implementation, and the of premium rice stocks before the price establishment was lower than the of premium rice after the implementation. establishment of the highest retail price policy. The following are details of the average of medium and premium rice inventories at wholesalers during each periods.

Table 1: The Average of Rice at Wholesalers before and after the Highest Retail Price Establishmentin Palembang, 2018

Quality Of Rice	*Before The Highest Retail Price Policy (kg/month)*	*After The Highest Retail Price Policy (kg/month)*	*Difference (kg/month)*	*Rate of Increasing and Decreasing (%)*
Medium Rice	159,750	100,833	58,917	22.61
Premium Rice	63,350	143,458	80,108	38.73

Table 1 shows that the inventory of medium rice has decreased. after the establishment of the highest retail price policy which is equal to 58,917 Kg/month. Before the establishment of highest retail price policy, the of medium rice was 159,750 Kg/month and the of medium rice after the establishment of highest retail price policy decreased to 100,833 Kg/month. The decrease in the of medium rice at the level of rice wholesalers is highly affected by the purchase of medium rice on the market which is decreasing and the supply of medium rice is reduced. The difference in the inventory of medium rice after the highest retail price policy is due to differences in the price of medium rice in the market and the purchase of medium rice will decrease.

Then based on Table 1 also shows that the inventory of premium rice has increased after the establishment of highest retail price policy has increased which is equal to 80,108 Kg/month. Before the establishment of the policy, the inventory of premium rice was 63,350 Kg/month and the inventory after the establishment increased to 143,458 Kg/month. The increase in the of premium rice at the level of rice wholesalers is highly affected by the increasing stock of premium rice in the market. After the establishment of the highest retail price policy, the purchase of premium rice increased. The wholesalers switched to increase the supply of premium rice compared to medium rice because of the reduced sales of medium rice in the market. Indrawati (2013) showed that the behavior of sellers in basic needs is affected by the average selling price of sellers and depends on the supply of goods at high or low volume.

The difference of the rice at the level of the rice wholesaler after establishment of the highest retail price policy was analyzed statistically by testing the 2-paired samples using the Statistical Package for Social Science (SPSS), the test was used to determine two samples taken from the same source or considered to have the same middle value or not. From the results of the statistical test, seen from the results of Sig (2-tailed) with a level of α = 0.05 that is 0,000 indicates that Sig (2-tailed) <α then reject Ho. This shows that it is very clear the magnitude of the difference in the of medium rice and premium rice before and after the establishment of the highest retail price policy.

Johan research (2011) showed that the purchase price of rice affects the inventory of rice in the opposite ways that may be expected. Logically after the policy implementation, the volume of medium rice available to trade tends to increase, while the premium one will decrease. The facts indicate that there is a shift of rice traded in Palembang from higher volume of medium quality to higher volume of premium quality. This is happened, according to wholesalers which also act as processors, because they just increased the quality of medium price become premium price to get higher price. To carry out the process is not costly, and rest rice still can be sold and give the total revenue higher than from selling medium rice during the policy implementation. To get details and valid data, this matter should be research more comprehensively.

4.2 The Rice Inventory at the Level of Retailers before and after the Policy

The following is details of the inventory of medium and premium rice for retailers before and after the highest retail price policy.

Table 2: The Inventory of Rice at Retailers Before and Afterthe Highest Retail Price Establishmentin Palembang, 2018

Quality Of Rice	*Before The Highest Retail Price Policy (kg/month)*	*After The Highest Retail Price Policy (kg/month)*	*Difference (kg/month)*	*Rate of Increasing and Decreasing (%)*
Medium Rice	35,554	32,808	2,746	4.20
Premium Rice	32,458	77,188	44,730	40.79

According to Table 2 that the inventory of medium rice has decreased after the establishment of the highest retail price policy, which amounted to 2,746 Kg/month. Before the policy, the inventory of medium rice was equal to 35,554 Kg/month and the inventory of medium rice after the establishment of the policy decreased to 32,808 Kg/month. The difference in medium rice inventory after the policy implementation at the retailers was due to the decreasing stock of medium rice at the level of wholesalers so that retailers increased the purchase of premium rice stock. Increasing food productivity means an increase in food supply and of rice at same price (Arifin, 2015)

Table 2 also shows that the inventory of premium rice has increased after the policy establishment which is amounted to 44,730 Kg/month. Before the establishment of the policy, the of premium rice was equal to 32,458 Kg/month and the inventory after the establishment increased as much as 77,188 Kg/month. The increase of premium rice inventory at the retailers is highly affected by the stock of premium rice supplies in the market that also increased. The reduced supply of medium rice in the market caused the retailers must provide premium rice because there is no other choice.

The difference of the rice at the level of the rice retailers after the establishment of the highest retail price policy was analyzed statistically by testing the 2-paired samples using the Statistical Package for Social Science (SPSS), the test was used to determine two samples taken from the same source or considered to have the same middle value or not. From the results of the statistical test, seen from the results of Sig (2-tailed) $\alpha = 0.000$ of the difference in of medium and premium rice that is 0,000 indicates that Sig (2-tailed) $<\alpha$ then reject Ho. This shows that it is very clear the magnitude of the difference in the of medium rice and premium rice before and after the establishment of the highest retail price policy.

5. Conclusion and Recommendation

Based on the study, we can conclude that there is a difference in the inventory of medium rice and premium rice at the level of wholesalers and retailers in Palembang after the establishment of the highest retail price policy. The inventory of medium rice at the wholesalers before that establishment was 159,750 Kg/month and the inventory of medium rice after establishment of policy was equal to 100,833 Kg/month. While premium rice inventory before the establishment the policywas equal to 63,350 Kg/month and the of premium rice after establishment of the highest retail price policy was equal to 143,458 Kg/month.

The inventory of medium rice at the retailers before the establishment of the policy was equal to 35,554 Kg/month and the inventory of medium rice after the establishment was equal to 32,808 Kg/month. Moreover the inventory of premium rice before the highest retail price era was equal to 32,458 Kg/month and after that the inventory of premium rice was equal to 77,188 Kg/month.

Based on this field study, it can be recommend that rice sellers are expected to increase the sales of medium rice in Palembang after the establishment of the highest retail policy so that medium rice can still be available for purchase by middle and lower income communities.

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Author Profile

Winda Dwi Wahyuni received the Bachelor of Agriculture Degree from Sriwijaya University in 2016 and she worked in PT. Kimia Farma Tbk. Now she is a student in Master Program in Agribusiness in Sriwijaya University, Indonesia.