RESPONSE OF RICE SUPPLY IN PASER REGENCY

by Hamdani .

Submission date: 11-Jan-2023 08:21AM (UTC+0700)
Submission ID: 1990995244
File name: 7_Response_of_Rice_Supply_in_Paser_Regency.pdf (344.62K)
Word count: 5839
Character count: 26173

IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)
e-ISSN: 2319-2380, p-ISSN: 2319-2372. Volume 12, Issue 8 Ser. I (August 2019), PP 22-30
www.iosrjournals.org

Response of Rice Supply in Paser Regency

Yuli Setiowati[1], Hamdani[2], Muhammad Husaini [2]
[1](Agriculture Faculty, Lambung Mangkurat University, Banjarbaru, South Kalimantan, Indonesia)
[2](Agriculture Faculty, Lambung Mangkurat University, Banjarbaru, South Kalimantan, Indonesia)

***Abstract*:** *The purpose of this study was to determine the factors that influenced the rice supply in the Paser Regency and to determine the value of elasticity (response) of rice supply in the short and long term. This study was carried out in East Kalimantan, namely in Paser Regency from March to November 2017. The location of the study was determined by purposive sampling, a deliberate location taking, because of the characteristics of the location in Paser Regency with the consideration that Paser Regency was an area that had a lot of effort to cultivate both paddy of wet rice fields and paddy of fields. The data used in this study were time-series data from 2007-201, while the power analysis model used was the supply response Nerlove model. The results of the analysis partially stated that the factors that significantly influenced the rice supply were only the variable amount of rice production in the previous year at α 0.05%, while the variable price of rice in the previous year, average rainfall in year t, planting area in the previous year and the price of low-quality rice in the previous year did not significantly affect the rice supply. The value of long-term and short-term elasticity in the previous rice price variables, the average in year t, and the amount of rice production in the previous year, the previous planting area, and the price of the previous year's low-quality rice were inelastic.*

Keywords: *Supply, rice*

Date of Submission: 26-07-2019 Date of acceptance: 12-08-2019

I. Introduction

Rice is a staple food for the Indonesian population which provides high energy and nutrients. Rice has become a strategic commodity in the life of the state in Indonesia. The role of rice, aside from being a staple food source, is also a source of income for farmers and the daily needs of millions of people. Rice can also be used as a political commodity because its existence cannot be replaced by other commodities and must be in sufficient quantities.

Paser Regency is one of the regencies in Indonesia, where most of its area is used as agricultural areas and most of their populations are farmers. Paser Regency has a good natural potential to develop the agricultural sector in its area. Rice crop commodity is one of the commodities produced in Paser Regency, with the production of 37343.00 tons with a harvested area of 9023.00 ha. It is produced in seven districts, namely Tanah Grogot, Kuaro, Long Ikis, Longkali, Pasir Belengkong, Muara Samu, and Tanjung Harapan. The seven subdistricts are suitable for cultivating rice plants; this is because the conditions for growing lowland rice crops are planted in the lowlands.

According to the Paser Regency Central Bureau of Statistics, the population is increasing from year to year. Population growth is directly proportional to consumer needs, in the sense that the more population increases, the higher the need for rice consumption increase as well so that the availability of rice must be fulfilled. This is a challenge for the Paser Regency Agriculture and Plantation Service in terms of meeting the availability of rice needs, especially in the Paser Regency. The availability of rice does not only meet the needs of the population for rice staple goods but also needs to be seen also the factors that influence the rice supply in the area. So it is necessary to study the supply response to the rice supply in Paser Regency, East Kalimantan Province.

Based on the specific background and description of the problem, this study aimed to: (1) Know the factors that influenced rice supply in Paser Regency. (2) Know the value of elasticity (response) of short-term and long-term rice supply in Paser Regency.

II. Method

Place and time of study

This study was conducted from March to November 2017 in Paser Regency.

Data Types and Data Sources

The type of data used in this study is time series secondary data (from time to time). Secondary data used is quarterly data, namely from January 2007 to December 2015.

Data analysis

The data analysis model used in this study is the Nerlove Model of the Supply Response, so the formula used in this study is:

nAt = Ln b0 + b1 LnPt-1 + b2 LnWt + b3 LnQt-1 + b4 LnAt-1 + b5 LnPst-1 + Ut ..... (1)

By:

A_t : The wide of Planted area at year-t (ha)
P_{t-1} : Price of rice in the previous month (Rp/Kg)
W_t : Average rainfall at month-t (mm/month)
Q_{t-1} : Total rice production in the previous month
A_{t-1} : The wide of Planted area in the previous month (ha)
P_{st-1} : Price of low-quality rice in the previous month (Rp/Kg)
b_0 : Constant
b_i-b_5 : Regression coefficient of the independent variable

To answer the first objective, the factors that influence rice supply are used as follows:

Adjusted R^2 Test (R^2)

$$R^2 = \frac{JK\ Regression}{JK\ Total}$$

N : Number of samples
k : Number of Coefficients which are estimated
JK Regression : Number of squares of regression
JK Total : Total squares total

Test F

$$F\ hit = \frac{R2-(k-1)}{(1-r2)/(n-1)}$$

By:

R^2 : The coefficient of determination
n : Number of samples
k : Number of coefficients estimated

Hypothesis test:

$H_0 : b_1 = b_2 = \ldots = b_5 = 0$
$H_1 : b_1 \neq b_2 \neq \ldots \neq b_5 \neq 0$ (At least one is not zero)

Partial Test (Statistic t-Test)

$$T_{hit} = \frac{bk}{SE\ (bk)}$$

By:

bk : Regression coefficients for independent variables to k
SE (bk) : Standard deviation of the coefficient for independent variable to k

While for testing classic assumption it is used:

Test of classical assumption of Multicollinearity

The multicollinearity test aims to test whether the regression model found a correlation between several or all independent variables (Ghozali 2001).

Test of classical assumption of Autocorrelation

The autocorrelation test aims to test whether in a linear regression model there is a correlation between residual errors in period t with errors in period t-1 (the previous). If there is a correlation, then there is an autocorrelation problem. A good regression model is a regression that is free from autocorrelation, one method used to test autocorrelation in this study is to detect *run tests*.

H_0: residual (res_1) random
H_A: residual (res_1) not random

Test of classical assumption of heteroscedasticity

Heteroscedasticity test is used to test whether in the regression model variance occurs from the residue in one observation to another observation. In heteroscedasticity tests, the tests carried out by using scatterplot graphs.

To answer the second goal, namely the level of sensitivity (elasticity) of rice supply in Paser Regency can be known by using the following formula:

$$\text{enSR} = \frac{dA}{dXn}\frac{Xn}{A} = \text{bn}\,\frac{Xn}{A}$$

While long-term elasticity can be known after short-term elasticity is known. The long-term elasticity is formulated as follows:

$$\text{enLR} = \frac{enSR}{\beta} = \frac{enSR}{(1-bn-1)}$$

III. Result And Discussion

The rice supply in this study was analyzed using the Nerlove model so that the rice supply as a dependent variable was measured from the planting area in the study area. As independent variables, namely the price of rice in the previous year, the average rainfall in year t, the amount of rice production in the previous year, the harvested area in the previous year, and the price of low-quality rice in the previous year. Based on the results of the study it was obtained data as follows:

Rice Prices

To see the development of rice prices in Paser Regency from 2007 - 2015 is shown by the following table:

Tabel 1. Prices of Rice in Paser Regency in Year of 2007-2015

Year	Quarterly	Prices of Rice Before Deflation	IHK (2012=100)	Prices of Rice After Deflation
2007	Sub round I	5,174.00	148.20	3,491.23
	Sub round II	4,500.00	149.65	3,007.02
	Sub round III	4,800.00	153.79	3,121.14
2008	Sub round I	5,950.00	160.02	3,718.29
	Sub round II	4,650.00	124.46	3,736.14
	Sub round III	5,700.00	113.69	5,013.63
2009	Sub round I	6,540.00	113.99	5,737.35
	Sub round II	5,694.00	114.48	4,973.79
	Sub round III	5,500.00	116.70	4,712.94
2010	Sub round I	7,601.00	118.23	6,428.99
	Sub round II	7,000.00	120.74	5,797.58
	Sub round III	6,500.00	123.92	5,245.32
2011	Sub round I	6,450.00	126.11	5,114.58
	Sub round II	7,750.00	127.05	6,099.96
	Sub round III	9,000.00	129.18	6,967.02
2012	Sub round I	8,350.00	131.05	6,371.61
	Sub round II	9,600.00	100.00	9,600.00
	Sub round III	9,525.00	134.84	7,063.93
2013	Sub round I	9,650.00	138.05	6,990.22
	Sub round II	9,037.00	142.37	6,347.55
	Sub round III	9,850.00	146.12	6,741.03
2014	Sub round I	9,850.00	111.24	8,854.73
	Sub round II	10,387.00	112.54	9,229.61
	Sub round III	9,850.00	115.86	8,501.64
2015	Sub round I	11,962.00	118.59	10,086.85
	Sub round II	13,125.00	120.65	10,878.57
	Sub round III	13,125.00	122.01	10,757.31
Total		**178 978.00**	**3072.28**	**142 865.30**
Average		**6626.22**	**113.78**	**5291.30**

Source: Secondary data, processed

Based on the table above, it can be seen that the price of medium rice tends to increase. The price level of medium rice used in this analysis is a price that has been deflated which aims to eliminate the influence of inflation. In the definition, the consumer price index is used with the base year 2012 in sub round II (2012 = 100). The price of rice after the highest deflation was in the sub round III of 2015 amounting to Rp 13,125.00 / kg and the price of medium rice after the lowest deflation was in the sub round II of 2007 amounting to Rp 3,007.02 /kg.

Average rainfall

Rainfall affects rice production. The following average rainfall in Paser Regency from 2007-2015 can be seen in the following table:

Table 2. Rainfall in Paser Regency in the Year of 2007-2015

Year	Quarterly	Rainfall
2007	Sub round I	250.55
	Sub round II	135.72
	Sub round III	94.82
2008	Sub round I	173.97
	Sub round II	144.85
	Sub round III	196.65
2009	Sub round I	130.02
	Sub round II	65.87
	Sub round III	78.10
2010	Sub round I	170.30
	Sub round II	138.60
	Sub round III	101.77
2011	Sub round I	180.30
	Sub round II	75.10
	Sub round III	156.80
2012	Sub round I	10.35
	Sub round II	7.72
	Sub round III	22.17
2013	Sub round I	246.80
	Sub round II	118.72
	Sub round III	117.80
2014	Sub round I	205.92
	Sub round II	101.85
	Sub round III	105.72
2015	Sub round I	220.60
	Sub round II	74.27
	Sub round III	94.85
Total		**3030.47**
Average		**112.23**

Source: BPS of Paser Regency

The lowest rainfall in Paser Regency occurred in sub round II of 2012 which was 7.72 mm/month. While the highest rainfall occurred in sub round I of 2007 was equal to 250.55 mm/month.

Rice Production

The amount of production is an important factor in supply; the ups and downs of production play an important role in influencing the supply of goods and services from producers. The following data on rice production can be seen in the following table:

Table 3. Amount of Rice Production in Paser Regency in the Year of 2007-2015

Year	Quarterly	The Wide of Planting Area	Production
2007	Sub round I	7,820.00	26,911.00
	Sub round II	6,699.00	19,545.00
	Sub round III	1,751.00	6,400.00
	Sub round I	7,336.00	25,804.00
2008	Sub round II	7,510.00	22,237.00
	Sub round III	1,999.00	7,374.00
2009	Sub round I	4,891.00	16,628.00
	Sub round II	6,378.00	21,167.00
	Sub round III	1,756.00	6,526.00
2010	Sub round I	4,014.00	14,108.00
	Sub round II	5,663.00	19,143.00
	Sub round III	1,950.00	8,147.00
2011	Sub round I	3,103.00	11,562.00

	Sub round II	5,154.00	17,749.00
	Sub round III	1,268.00	5,134.00
2012	Sub round I	2,906.00	9,505.00
	Sub round II	5,927.00	21,087.00
	Sub round III	1,380.00	6,452.00
2013	Sub round I	2,930.00	11,654.00
	Sub round II	5,216.00	19,780.00
	Sub round III	2,158.00	9,665.00
2014	Sub round I	3,086.00	12,674.00
	Sub round II	4,440.00	17,401.00
	Sub round III	1,497.00	6,768.00
2015	Sub round I	4,365.00	17,372.00
	Sub round II	3,779.00	13,426.00
	Sub round III	1,229.00	5,493.00
Total		**96 832.00**	**379.712.00**
Average		**3586.37**	**14063.41**

Source: Paser Regency Agriculture and Plantation Service

The average rice production in Paser Regency is 14,063.41 tons. The lowest rice production occurred in 2011 which was 5,134.00 tons. While the highest rice production occurred in the sub round I of 2007 which was 26,911.00 tons

The Wide of Planting Area

The area of arable land is considered to be one of the most important factors affecting agricultural yields if it is assumed that the technology used has not changed. The development of the harvested area from 2007 - 2015 can be seen in the following table:

Table 4. Planting Area in Paser Regency

Year	Quarterly	The wide of planting area
2007	Sub round I	7,820.00
	Sub round II	6,699.00
	Sub round III	1,751.00
2008	Sub round I	7,336.00
	Sub round II	7,510.00
	Sub round III	1,999.00
2009	Sub round I	4,891.00
	Sub round II	6,378.00
	Sub round III	1,756.00
2010	Sub round I	4,014.00
	Sub round II	5,663.00
	Sub round III	1,950.00
2011	Sub round I	3,103.00
	Sub round II	5,154.00
	Sub round III	1,268.00
2012	Sub round I	2,906.00
	Sub round II	5,927.00
	Sub round III	1,380.00
2013	Sub round I	2,930.00
	Sub round II	5,216.00
	Sub round III	2,158.00
2014	Sub round I	3,086.00
	Sub round II	4,440.00
	Sub round III	1,497.00
2015	Sub round I	4,365.00
	Sub round II	3,779.00
	Sub round III	1,229.00
Total		**96,832.00**
Average		**3,586.37**

Source: Paser Regency Agriculture and Plantation Service

Based on the table, it can be seen that the planting area changes every year, where the largest planting area is in sub round II of 2007 amounting to 6,699 ha, while the smallest planting area is in sub round II of 2015 which is 1,229 ha. This is because the land used to harvest rice has been converted to plant oil palm. This has an impact on the rice supply; when the plant area decreases, the rice supply also decreases.

Low-Quality Rice Prices
Determination of low-quality rice as a competitor commodity of medium rice where the development of low-quality rice prices from 2007-2015 can be seen in the following table:

Table 5. Low-Quality Rice Prices in Paser Regency in the Year of 2007-2015

Year	Quarterly	Prices of Rice Before Deflation	IHK (2012=100)	Prices of Rice After Deflation
2007	Sub round I	4,108.00	148.20	2,771.93
	Sub round II	4,175.00	149.65	2,789.84
	Sub round III	4,299.00	153.79	2,795.37
2008	Sub round I	4,820.00	160.02	3,012.12
	Sub round II	4,820.00	124.46	3,872.73
	Sub round III	5,000.00	113.69	4,397.92
2009	Sub round I	5,050.00	113.99	4,430.21
	Sub round II	5,110.00	114.48	4,463.66
	Sub round III	5,250.00	116.70	4,498.71
2010	Sub round I	6,390.00	118.23	5,404.72
	Sub round II	6,211.00	120.74	5,144.11
	Sub round III	6,550.00	123.92	5,285.67
2011	Sub round I	7,141.00	126.11	5,662.52
	Sub round II	7,050.00	127.05	5,549.00
	Sub round III	7,432.00	129.18	5,753.21
2012	Sub round I	7,194.00	131.05	5,489.51
	Sub round II	7,165.00	100.00	7,165.00
	Sub round III	7,510.00	134.84	5,569.56
2013	Sub round I	7,911.00	138.05	5,730.53
	Sub round II	7,686.00	142.37	5,398.61
	Sub round III	7,906.00	146.12	5,410.62
2014	Sub round I	8,677.00	111.24	7,800.25
	Sub round II	8,303.00	112.54	7,377.82
	Sub round III	9,014.00	115.86	7,780.08
2015	Sub round I	8,994.00	118.59	7,584.11
	Sub round II	8,531.00	120.65	7,070.87
	Sub round III	8,515.00	122.01	6,978.94
Total		**154772**	**3072.28**	**123553.7**
Average		**5732.29**	**113.78**	**4576.06**

Source: Secondary data, processed

Based on the table, it can be seen that the price of low-quality rice before and after deflation from 2007-2015. The average price of low-quality rice before deflation is Rp. 5732.29/kg while the average price of low-quality rice after deflation is Rp 4576.06/kg. The average price of low-quality rice after deflation is lower than the price of low-quality rice before it is deflated; this is because the influence of inflation has been removed by using the 2012 consumer base price index, where this year the economy tends to be stable.

To find out wheher there is a deviation from the classic assumption, the classic assumptions are tested below:
Multicolored Test. The value of variance inflation factor that is shown in the results of data analysis shows that there is no correlation between the independent variables which have a value of more than 10 so that it can be concluded that there is no multicolor among the independent variables that affect rice supply in Paser Regency.

Autocoleration Test. Based on data analysis, it is known that the *run test* value is 0.009 > 0.05 so it can be concluded that autocorrelation does not occur in the model.

Heteroscedasticity. Based on the results of data analysis, it is known that the graphs show dots spread randomly, do not form a clear pattern, and are spread both above and below the number 0 and Y-axis. This means there is no heteroscedasticity in the regression model, so the regression model is decent to be used in predicting rice supply based on the input of the independent variable.

Factors that influence rice supply
Factors that influence the rice supply can be seen as in the table below.

Table. 6 Results of analysis of the response of rice supply in Paser Regency

Variable	Coefficient	t-count	Sig.
Constant	-0.399	-0.441	0.664
Prices of rice (Pt-1)	-0.127	-0.884	0.387
Rainfall (Wt)	-0.025	-1.377	0.196
Production (Qt-1)	1.103	18.166	0.000
The wide of planting area (At-1)	0.023	0.695	0.495
Prices of low-quality rice (Pst-1)	-0.77	-0.439	0.665
R-sq	0.993	dec	
R-sq (adj)	0.981		
Source	DF	f- count	Sig.
Regression	5	264.617	0,000*
Residual	20		
Total	25		

Source: Data processed

$A_t = (-0.399) - 0{,}127\ P_{t-1} - 0.025\ W_t + 1.103\ Q_{t-1} + 0.023\ A_{t-1} - 0.077\ P_{st-1}$
SE = (0.905) (0.144) (0.019) (0.061) (0.033) (0.174)
R^2 =0,993
By:
A_t : Response to the rice supply in year-t (Ha)
P_{t-1} : Price of rice in the previous year (Rp/kg)
W_t : Average rainfall on year-t (mm/month)
Q_{t-1} : Amount of rice production in the previous year (tons)
A_{t-1} : Planted area on the previous year (ha)
P_{st-1} : Price of low-quality rice in the previous year (Rp/kg)

R^2 Test

From the results of the analysis obtained the R^2 value (coefficient of determination) of 0.993. Based on the R^2 value of 0.993 close to 1 so that the model is right to use, while view from the adjusted R^2 value it can be said that 98.1 percent of the response of rice supply in Paser Regency can be explained by the independent variables used in the model, namely the price of rice in the previous month, the average rainfall in year-t, the amount of rice production in the previous year, the wide of planting area in the previous year, and the price of low-quality rice in the previous year, while the remaining 1.9 percent is explained by other factors outside the model.

F-Test

From the results of the analysis, it can be seen that the level of significance is 0.000 which is less than 0.05. This shows that the variables observed are the price of rice in the previous year, the average rainfall in year-t, the amount of production in the previous year, the wide of planting area in the previous year, and the price of low- quality rice in the previous year had a significant effect on rice supply in Paser Regency at a 90% confidence level.

T-test

The results of the analysis can be seen in the following table:

Table 7. Effect of each independent variable on rice supply in the Paser Regency.

Model	Regression coefficient	t-count	Sig
Constant	-0.399	-0.441	0.664
Price of rice in the previous year (P_{t-1})	-0.127	-0.884	0.387
Average rainfall on year-t (W_t)	-0.025	-1.337	0.196
Amount of rice production in the previous year (Q_{t-1})	1.103	18.166	0.000*
Planted area on the previous year (A_{t-1})	0.023	0.695	0.495
Price of low-quality rice in the previous year (P_{st-1})	-0.77	-0.439	0.665

Source: Data analysis
By:
* : Significant at the 90% confidence level
** : Significant at the 95% confidence level
*** : Significant at 99% confidence level
NS : Not significant

Based on the t-test in the table above it can be seen that the regression coefficient of rice prices in the previous year amounted to 0.387> 0.005 as well as the value of t_{count} of 0.884 <t_{table} of 2.947 so it can be concluded that the price of rice in the previous year had no significant effect on rice supply.

Regression coefficient value (b_1) previous year's rice price (P_{t-1}), the previous year's rice price variable has a regression coefficient of -0.127. The regression coefficient of 0.127 shows that the influence given is negative, where each increase in rice prices in the previous year by 1 rupiah/kilogram will reduce the rice supply by 0.127 tons assuming other variables equal to zero (0).

The conclusion from the results of the analysis is (Ho) which predicts the previous year's rice price variable does not affect individually the rice supply received, and H_1 is rejected. The previous year's rice price variable does not significantly influence the rice supply because rice is a staple food that must be consumed every day, although the price rises the same amount still needs to be consumed, whereas when the price drops rice consumption will not increase much due to relatively constant consumption needs. Because of the lack of elasticity of the rice supply, the supply will not experience a very large change if the price of rice changes.

Based on the t-test in the table above, it can be seen that the regression coefficient of average rainfall in year-t is 0.196> 0.005 as well as the calculated t_{count} of 1.337 <t_{table} of 2.947 so it can be concluded that the average rainfall in year-t has no effect real to rice supply.

Regression coefficient (b_2) average rainfall year t (W_t), average rainfall variable in year t gives a negative influence on rice supply in Paser Regency. The regression coefficient value of the average rainfall in year t is -0.025, which means that every increase in rainfall in Paser Regency by 1 mm/month will reduce the rice supply by 0.025 tons assuming other variables are considered equal to zero (0).

The conclusion from the results of the analysis is (H_o) which predicts the rainfall variable in year t does not affect individually the rice supply received, and H_1 is rejected. The rainfall variable for year t does not significantly influence rice supply because farmers have strategies on how to deal with extreme weather that often occurs according to their experience. Some of these strategies are to implement appropriate planting time so that it can ensure sufficient rainfall and other climatic elements starting from the vegetative phase to the reproductive phase and choosing plant varieties that are tolerant of underwater conditions and resistant to pests and diseases.

Based on the t-test in the table above it can be seen that the regression coefficient of the amount of rice production in the previous year was 0,000 <0,005 as well as the value of t_{count} of 18.166> t_{table} of 2.947 so it can be concluded that the amount of rice production in the previous year has a significant effect on rice supply.

Regression coefficient (b3), the amount of production in the previous year (Qt-1), the variable number of production in the previous year have a positive influence on the rice supply in Paser Regency. The variable regression coefficient number of production in the previous year is 1,103, which means that each increase in the number of production in Paser Regency by 1 ton will increase the rice supply by 1,103 tons assuming other variables are assumed to be zero (0).

The conclusion from the results of the analysis is (H_o) which predicts that the rice production variable in the previous year has an individual effect on the rice supply received, and H_1 is rejected. The rice production variable in the previous year has a significant effect on the rice supply because with the increase in rice production it will increase the rice supply, thus triggering enthusiasm in farming because the results obtained can meet family needs.

Based on the t-test in the table above, it can be seen that the regression coefficient of the previous year's planting area is 0.495> 0.005 as well as the calculated t_{count} of 0.695 <t_{table} of 2.947 so it can be concluded that the previous year's harvested area does not significantly affect rice supply.

The regression coefficient (b_4) of the wide of planting area in the previous year (A_{t-1}), the variable of the wide of planting area in the previous year have a positive influence on the rice supply in the Paser Regency. The variable regression coefficient of the wide of planting area in the previous year in Paser Regency is 0.023 ha, which means that every addition of 1 hectare of rice planting area will increase rice supply in Paser Regency by 0.023 tons by assuming other variables are considered equal to zero (0).

The conclusion of the results of the analysis is (Ho) which predicts the variable planting area in the previous year does not individually affect the rice supply received, and H_1 is rejected. Variables in the previous year's planting area does not significantly influence rice supply because the more land area used as an agricultural business the more inefficient the land would be, even the vast areas of inefficiency could occur due to weak supervision of the use of production factors such as seeds, fertilizers, drugs medicine and labor. The limited capital and labor supply around the area will ultimately affect the efficiency of the agricultural business.

Based on the t-test in the table above, it can be seen that the regression coefficient of the price of low-quality rice in the previous year is 0.665> 0.005 as well as the calculated t_{count} of 0.439> t_{table} of 2.947 so it can be concluded that the prices of rice in the previous year have no significant effect on rice supply.

Regression coefficient (b_5) of the price of low-quality rice in the previous year (P_{st-1}), the variable price of low-quality rice in the previous year have a negative influence on the rice supply in Paser Regency. The

regression coefficient value of low-quality rice in the previous year in Paser District is -0.077, which means that every increase in the price of low-quality rice in the previous year in Paser Regency by 1 Rp/kilogram would reduce rice supply by 0.077 tons by assuming variables are considered zero (0).

The conclusion of the results of the analysis is (Ho) which predicts the variable price of rice in the previous year does not individually affect the rice supply received, and H_1 is rejected. The previous year's rice price variable does not significantly influence the rice supply because in it is an activity which is routinely cultivated as a part of local wisdom, so prices do not affect the supply. In addition, in its cultivation, the results obtained are prioritized to meet the needs of rice family members until the next planting season.

Supply Elasticity

The variable elasticity value that has a significant effect can be seen in the table below:

Table 8. Short-term and long-term rice supply elasticity in Paser Regency

No	Variable	short-term rice supply elasticity	long-term rice supply elasticity
1	The prices of rice in the previous month	0.23	0.20
2	The average rainfall in the month-t	0.02	0.02
3	The rice production in the previous month	2.15	20.88
4	The wide of planting area in the previous month	0.04	0.04
5	The prices of low-quality rice in the previous month	0.14	0.13

Source: Data analysis

Based on the table, the value of supply elasticity for the previous year's rice price variable is 0.23 for the short term and 0.20 for the long term; this stated that the elasticity value is inelastic due to the value of E <1. The supply elasticity value for the average rainfall variable in year t is 0.02 for the short term and 0.02 for the long term, which states that the elasticity value is inelastic due to the value of E <1.

The supply elasticity value for the variable amount of rice production in the previous year is 2.15 for the short term and 20.88 for the long term, stating that the elasticity value is elastic due to the value of E> 1. The supply elasticity value for the previous year's harvested area variable is 0.04 for the short term and 0.04 for the long term, which states that the elasticity value is inelastic due to the value of E> 1.

The supply elasticity value for the low-quality rice price variable in the previous year is 0.14 for the short term and 0.13 for the long term, states that the elasticity value is inelastic due to the value of E> 1. According to Kartasapoetra (1988), the cause of inelastic agricultural products is agricultural products that are produced seasonally, their production business capacity tends to reach a high level, not affected by changes in demand, and the harvest of cultivated crops requires sufficient time which is until the planting season arrives

IV. Conclusion

Based on the results of the study it can be concluded that the test results partially state that only the variable amount of rice production in the previous month (Q_{t-1}) has a significant influence on the rice supply in Paser Regency, while the rice price variable in the previous month, average rainfall in month t, the wide of planting area in the previous month, and the price of low-quality rice in the previous month had no significant effect on rice supply in Paser Regency. A simultaneously testing states that the measured independent variables influence the rice supply in the Paser Regency. The contribution of the independent variables measured toward the rice supply in Paser Regency is 98.1 percent, while the remaining 1.9 percent is contributed by other variables which are not calculated and the value of long-term and short-term elasticity on the previous month's rice price variables, the average rainfall in month t, the planting area of the previous month, and the price of the low-quality rice in the previous month are inelastic. While for the variable the amount of production is elastic.

References

[1]. A.G Kartasapoetra. (1988). Pengantar Ekonomi Produksi Pertanian Jakarta : Bina Askara
[2]. Badan Pusat Statistik (BPS). 2014. *Kabupaten Paser Dalam Angka 2014*. Paser: BPS.
[3]. Nerlove, M. 1986. *The Dynamics of Supply: Estimatoin of Response to Price*. The Johns Hopkins Press. Baltimore. USA.

Yuli Setiowati. " Response of Rice Supply in Paser Regency. "IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) 12.8 (2019): PP- 22-30.

RESPONSE OF RICE SUPPLY IN PASER REGENCY

ORIGINALITY REPORT

13%	10%	8%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	journal.umy.ac.id Internet Source	2%
2	data.wu.ac.at Internet Source	2%
3	Azizatul Aulia, M. Alkadri Perdana. "The Influence of Religiosity, Trust, Knowledge and Location on People Interest in Saving at Bank Syariah Indonesia Sub-Branch Office Bengkalis", Inovbiz: Jurnal Inovasi Bisnis Seri Manajemen, Investasi dan Kewirausahaan, 2022 Publication	2%
4	"History of Law in Japan since 1868", Brill, 2005 Publication	1%
5	Respatiwulan, D Prabandari, Y Susanti, S S Handayani, Hartatik. "The stochastic model of rice price fluctuation in Indonesia", Journal of Physics: Conference Series, 2019 Publication	1%
	repository.usu.ac.id	

6	Internet Source	1 %
7	ejournal.stiewidyagamalumajang.ac.id Internet Source	1 %
8	www.iosrjournals.org Internet Source	1 %
9	bircu-journal.com Internet Source	1 %
10	www.rsisinternational.org Internet Source	1 %
11	journal2.uad.ac.id Internet Source	1 %

Exclude quotes	On	Exclude matches	< 1%
Exclude bibliography	On		