

**DETERMINANTS OF POOR FARMING HOUSEHOLDS IN SOUTH KALIMANTAN PROVINCE IN 2023**

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**ABSTRACT**

South Kalimantan Province is one of the provinces in Indonesia that makes the agricultural sector a vital sector in its economy. According to BPS (2023), 48.86 percent of poor households in Indonesia have the main source of income in the agricultural sector. For this reason, it is necessary to measure poverty in agricultural households to provide input in overcoming poverty problems in the agricultural sector. By utilizing data from the March 2023 Socio-Economic Survey (Susenas) and two analysis methods, namely descriptive and binary logistic regression, this study aims to obtain an overview of the characteristics of agricultural households and identify what socio-demographic factors affect the poverty status of agricultural households. Based on the results of Susenas data processing in March 2023, 40.96 percent of agricultural households in South Kalimantan Province were obtained. The agricultural households are dominated by the plantation subsector which reaches 46.26%, followed by rice and palawija agriculture (32.50%), fisheries (10.59%), horticulture (4.94%), livestock (3.47%) and forestry and other agriculture (2.24%). The results of this study also show that agricultural households are dominated by those who live in rural areas, the head of the household is male, the average age of the head of the family is 45 years to 55 years, the last education below junior high school, the number of household members is 3 to 4 people, owns land and the head of the household has an agricultural business. Using the Poverty Line (GK) cut off point of each district/city, of the 3,400 agricultural households, 1.59% were poor, while 98.41% were not poor. The results of the binary logistic regression analysis show that the variables that have a significant effect on the poverty status of agricultural households in South Kalimantan Province in 2023 are the classification of regions, the gender of the head of the household, the age of the head of the household and the number of household members.

**Keywords:** Poverty, agricultural households, binary logistic regression, poverty line

**1. INTRODUCTION**

Poverty is still a sustainable problem and is still the main focus in development. Efforts to alleviate poverty globally have been made a commitment and agreed by every country around the world in the *Sustainable Development Goals* (SDGs) for the 2015-2030 period. In fact, the SDGs make the point of poverty alleviation (*No Poverty" End Poverty in all its forms everywhere*) in its first goal.

The Central Statistics Agency (BPS) defines poverty using the concept of basic needs (*basic needs approach*), namely poverty as the inability from the economic side to meet basic food needs and non-food from the side of expenditure measured through the poverty line. The poverty line is a line that indicates the minimum level of living of a person to be classified as poor or not poor. BPS calculates the poverty line through the expenditure approach which is the value of spending on the minimum food needs which is equivalent to 2,100 kilocalories per capita per day

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and the minimum non-food needs for housing, clothing, education, and health. So that a person is said to be poor if his per capita expenditure is below the poverty line.

Looking more deeply, this poverty problem is always related to the agricultural sector. Todaro and Smith (2011) also make a valid generalization about poverty, that most poor people live in rural areas, and their main activity is in the agricultural sector. This is corroborated by the BPS (2023) where 48.86 percent of poor households in Indonesia have the main source of income in the agricultural sector.

South Kalimantan Province is one of the provinces in Indonesia that makes the agricultural sector a vital sector in its economy. The importance of the role of the agricultural sector in the economy is illustrated in the value of the Gross Regional Domestic Product (GDP) in 2023, where the agricultural sector is the second largest contributing sector (13.07 percent) after the mining and quarrying sector. In addition, the agricultural sector is the sector that absorbs the most labor in South Kalimantan Province. In 2023, the agricultural sector will even be able to absorb 30.13 percent of the workforce. This is because most of the people of South Kalimantan make agriculture their main source of livelihood.

If poverty in South Kalimantan Province is seen in aggregate in 2023, the percentage of poor people is 4.29 with the majority coming from agricultural households. This is supported by BPS data, that there are around 38.41 percent of poor households in South Kalimantan Province who have the main source of income in the agricultural sector, while the rest are non-agricultural and do not work.

In line with the condition of Indonesia in general, South Kalimantan Province also has a large number of poor people. Broken down per district/city in South Kalimantan Province during 2022 and 2023, there is a difference in poverty levels. The district with the highest poverty rate for 2 consecutive years is North Hulu Sungai Regency, while the district with the lowest poverty rate is in Banjar Regency. If you look at the trend of poverty rates for 2 years, the majority of districts/cities in the period 2022 to 2023 are decreasing, except in Kotabaru Regency which has increased from 4.30 percent in 2022 to 4.32 percent in 2022. Although the majority of district/city poverty rates have decreased, the poverty rate is still relatively high, making the problem of poverty in South Kalimantan Province important to be explored further.

The poverty rate is still considered high, especially in agricultural households, even though so far the government has always tried to promote poverty alleviation programs, including general programs such as the Smart Indonesia Program (PIP), the National Health Insurance Program (JKN-KIS), the Family Hope Program (PKH), and the Rastra Social Assistance/Non-Cash Food Assistance (BPNT); as well as programs specifically for the agricultural sector such as the Alsintan Program, the Food Crops and Horticulture Agricultural Development Program (TPH), and so on.

Given the many problems mentioned above, including the high percentage of poverty in South Kalimantan, especially in the agricultural sector; poverty in each district/city has different forms of poverty trends; If left unchecked, poverty will have many negative impacts. Therefore, this study wants to measure poverty in order to get an overview of poverty conditions, especially agricultural households in South Kalimantan Province. Research using agar can be used as a

recommendation for government policies to alleviate poverty (in general). As well as identifying the socio-demographic factors that most affect the poverty status of agricultural households, so that the policies and assistance provided focus more on certain characteristics of households that have a greater tendency to become poor (in particular).

Thus, several problems that are questioned in this study can be formulated, namely:

1. What are the characteristics of agricultural households in South Kalimantan province in 2023?
2. What socio-demographic factors affect the poverty status of agricultural households in South Kalimantan Province in 2023?

This study aims to: (1) find out and analyze the characteristics of agricultural households in South Kalimantan province in 2023 (2) analyze socio-demographic factors that have an influence on the monetary poverty status of agricultural households in South Kalimantan Province in 2023.

## 2. RESEARCH METHODS

### Place and Time of Research

The research was carried out in South Kalimantan Province, starting from the proposal making stage in January 2024 and continuing with data processing until the completion of the research results report in June 2024.

### Types and Data Sources

This study uses secondary data, namely data on the March 2023 South Kalimantan Corps and Consumption Module Susenas collected by BPS. Susenas data is a *cross section* data with household unit sampling. Of the total Susenas sample, 8,300 households were sorted again according to what was desired, namely a sample of 3,400 agricultural households spread across 13 districts/cities. The concept of agricultural households was obtained from the 2013 Agricultural Census, *the 2020 Agriculture Household Survey and the 2003 Eurostat IAHS Statistic*. An agricultural household is a household where there is at least one person who works in the agricultural sector. The scope of agriculture includes the agricultural subsectors of food crops, horticultural crops, plantation crops, fisheries, livestock, forestry and other agriculture.

The determination of the poverty status of workers is carried out by determining *the cut off point* in the form of a poverty line. Agricultural households are categorized as poor if the agricultural household's per capita expenditure per month is below the poverty line. In order to determine the poverty status of agricultural households more representative according to the circumstances of each area where workers live, the poverty line used is the district/city poverty line. So that each district/city has a different poverty line between one region and another.

### Analysis Methods

The analysis method used in this study uses two approaches, namely descriptive analysis and inferential analysis. The inferential analysis method used in this study is a binary logistic regression model. Logistic regression is a regression analysis used to describe the relationship between dichotomous non-free variables (nominal or ordinal scale with two categories) or polychotomy (nominal scale or ordinal scale with more than two categories) and continuous or categorical independent variables (Agresti, 2013). To see the binary logistic regression model, the non-independent variable is expressed in the logit function for  $Y=1$  compared to the logit function  $Y=0$ . In this case, the  $Y=0$  category is referred to as the

reference/comparison category. For the poverty status model, namely:

Y = 0, if the Agricultural Household is not poor,

Y = 1, if the Agricultural Household is poor

The distribution used by binary logistic regression is the Bernoulli distribution (Agresti, 1990).

$$f(y_i) = \pi_i^{y_i} (1 - \pi_i)^{1-y_i} \dots\dots\dots (1)$$

$y_i$  is the  $i$ th random variable chance. If it is known that the dependent variable has a value of 0 and  $q$ , then:

$$p = (Y = 1|X = x_i) = \pi(x_i) \text{ and}$$

$$p = (Y = 0|X = x_i) = 1 - \pi(x_i)$$

The stages carried out in binary logistic regression are as follows:

Model Formation

The model formed in binary logistic regression is as follows

$$g(x) = (\beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7\dots\dots\dots (2)$$

with:

$g(x)$  = Chance of farming households becoming poor

$p$  = Number of independent variables  $x_i$ .

$\beta_0$  = Constant

$\beta_i$  =  $i$ th independent variable logistic regression coefficient

$x_1$  = Classification of residential area

$x_2$  = Gender of the head of the household

$x_3$  = Age of the head of household

$x_4$  = Education of the head of the household

$x_5$  = Number of household members

$x_6$  = Land ownership

$x_7$  = Business field of the head of the household

The model is a linear function of its parameters.

Parameter Testing.

The Likelihood Ratio Test is used to simultaneously test whether the explanatory variables together can affect the response variables (Hosmer and Lemenshow, 2000). The hypothesis used is (There is no significant influence of independent variables simultaneously on the dependent variable  $H_0 : \beta_1 = \beta_2 = \dots = \beta_v = 0$ ), and : there is a minimum (there is at least one  $i$ th explanatory variable that has a significant effect on the response variable) with  $i = 1, \dots, v$  where  $v$  is the number of independent variables. The statistics used are  $H_1 \beta_v \neq 0 G = -2 \ln \frac{L_0}{L_1}$ . The test statistic will reject if  $(v, \alpha)$  or  $H_0 G > X^2 p\text{-value} < \alpha$ . In other words, there is at least one  $i$ th independent variable that has a significant effect on the dependent variable.

Wald's statistics are used to test the influence of these dependent variables partially. With the hypothesis (the  $i$ th independent variable does not have a significant effect on the dependent variable) and  $H_0 : \beta_v = 0 H_1 : \beta_v \neq 0$  (the  $i$ th independent variable has a significant effect on the dependent variable) with  $i = 1, \dots, v$ . The statistics used are  $W = \frac{\hat{\beta}_j}{SE(\hat{\beta}_j)}$ . Statistics of the if  $(v, \alpha)$  or  $H_0 W^2 > X^2 p\text{-value} < \alpha$ . In other words, the  $i$ th independent variable has a significant effect on the dependent

variable.

#### Model Conformance Test.

Testing the suitability of the model to find out if there is a difference between the observation results and the predicted results of the model that has been formed. To test the suitability, Hosmer and Lemeshow test statistics were used (Hosmer and Lemeshow, 2000). The hypotheses used are: Fit model and : Non-fit model. The statistics used are:  $g$  number of groups, number of dependent variable values,  $H_0$   $H_1$   $\hat{C} = \sum_{h=1}^g \frac{(O_h - n_h \bar{\pi}_h)^2}{n_h \bar{\pi}_h (1 - \bar{\pi}_h)} O_h \bar{\pi}_h$  average estimated probability,  $um$  the subject in the  $h$ th group. Negative test statistics if  $n_h j H_0 \hat{C} > \chi^2 (\alpha, v-2)$  or  $p\text{-value} < \alpha$ . In this test, it is hoped that the results will fail to reject so that the model is fit.  $H_0$

#### Odds Ratio.

*The odds ratio* related to the value of each estimator is generated using logistic regression. The chances of an event are calculated by dividing the odds that will happen by the odds that won't. When the value of the estimator variable increases by 1 (one) unit, *the odds ratio* for the estimator increases or decreases significantly as a relative measure of the probability of an outcome. The exponential value  $\beta$  used to calculate *the Odds ratio*

#### Multicollinearity Test.

Before the logistic regression analysis, a multicollinearity assumption is examined. The assumption of multicollinearity in the logistic regression equation model should not be violated, because it can have a fatal effect, namely the model becomes *non-identified*, which means that the parameters in the model cannot be estimated and the output in the form of a path diagram cannot be displayed or if the parameters are successfully estimated and the output of the path diagram is successfully displayed, the results will still be biased (Wijanto, 2008). Multicollinearity shows the relationship between the independent variables involved in the regression model. The method to test the existence of multicollinearity can be seen from the value of *variance inflation factor* (VIF) and *Tolerance*. If the *Tolerance value*  $< 0.1$  and  $VIF > 10$ , it can indicate the existence of multicollinearity between dependent variables (Kutner et al., 2004).

**Table 1. Research Variables**

Variable Name	Category
<b>Depend on</b>	
Poverty Status (Y)	0 : Not Poor 1 : Poor
<b>Independent</b>	
Classification of Living Territories (X1)	0: Let's gut*) 1: Rural
Gender Head of Household (x2)	0: Go to the*) 1: Women
Age of Head of Household (x3)	Name Category
Head of Household Education (x4)	0: High School and above *) 1: Junior High School and Below
Number of Household Members (x5)	Name Category
Land Ownership (x6)	0: Own*) 1: Not having
Head of Household Business Field (X7)	0: Non-Farm *) 1: Agriculture

Caption \*) reference category

**3. RESULTS AND DISCUSSION**

**Characteristics of Agricultural Households in South Kalimantan Province in 2023**

An agricultural house is a household in which at least one household member works in the business field/agricultural sector. From Susenas data in March 2023, which was processed by 8,300 households, there are 3,400 or 40.96% of agricultural households in South Kalimantan Province. The agricultural households are dominated by the plantation subsector which reaches 46.26%, followed by rice and palawija agriculture (32.50%), fisheries (10.59%), horticulture (4.94%), livestock (3.47%) and forestry and other agriculture (2.24%).

**Table 2. Distribution of Agricultural Households by Poverty Status and Regency/City in South Kalimantan Province in 2023**

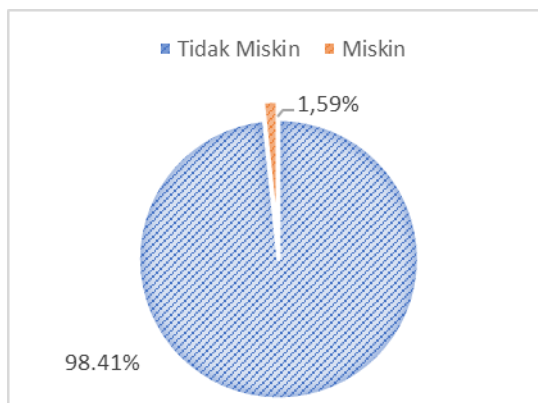
Regency/City	Agricultural Household	
	% Poor	% Not Poor
Banjar Baru City	13.79	86.21
Banjarmasin City	5.26	94.74
Banjar South Hulu	3.28	96.72
Sungai North Hulu	2.86	97.14
Sungai	2.40	97.6
Kotabaru	2.12	97.88
Tanah Laut	1.13	98.87
Balangan	1.11	98.89
Barito Kuala	1.10	98.9
Tabalong	0.95	99.05
Tapin	0.78	99.22
Tanah Bumbu	0.76	99.24
Hulu Sungai Tengah	0.52	99.48
<b>South Kalimantan</b>	<b>1.59</b>	<b>98.41</b>

Source: Susenas March 2023, processed

When viewed (Table 2) agricultural households based on their area, Hulu Sungai Tengah Regency has the largest percentage, which is 11.32% or 385 agricultural households. Followed by Kotabaru Regency which has a percentage of 11.09% or 377 agricultural households. Banjarmasin City is the area with the least number of agricultural households, namely only 19 or 0.56% of agricultural households in South Kalimantan Province in 2023. Of the 3,400 agricultural households, there are only 54 or 1.59% of poor agricultural households and the remaining 3,346 or 98.41% of agricultural households are not poor. This shows that only a small part of agricultural households in South Kalimantan Province are poor. (Figure 1).



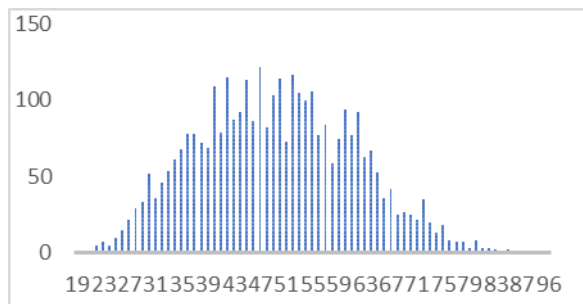
**Figure 1.** Percentage of Agricultural Households by Poverty Status



Source: Susenas March 2023, processed

The distribution of poor agricultural households in the South Kalimantan Province area can be seen (Table 2) which is the most abundant in Banjar Regency which is as many as 10 poor agricultural households, then the second in Kotabaru Regency which is as many as 8 poor agricultural households. The city of Banjarmasin which is the area with the lowest poor agricultural households in South Kalimantan Province is only 1 poor agricultural household.

**Figure 2.** Agricultural Households According to the Age of the Head of Agricultural Household

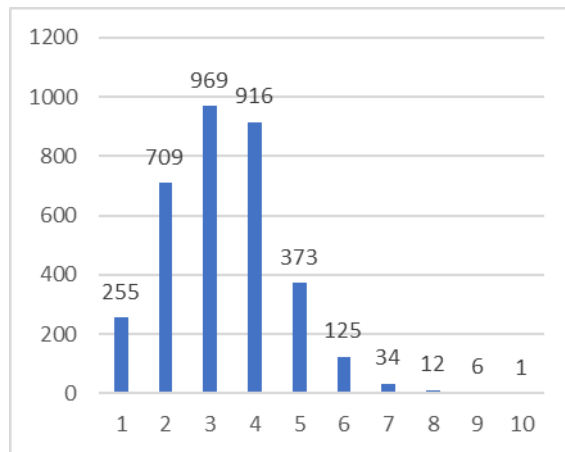


Source: Susenas March 2023, processed

The characteristics of agricultural households in South Kalimantan Province can be seen in Figure 2 which is dominated by the age range of 45 to 55 years. In Figure 3, it can also be seen that the number of members of agricultural households is majority as many as 3 and 4 household members.



**Figure 3.** Number of Agricultural Household Members in South Kalimantan Province



Source: Susenas March 2023, processed

Based on the results of the descriptive analysis in Table 3. It shows that agricultural households are more dominated by those residing in rural areas, namely 86.97% and 1.42% of them are poor agricultural households, while in urban areas there are 13.03% of poor agricultural households and 2.71% of them are poor. There are agricultural households whose heads of households are male, which is 87.56% and 1.48% of them are poor agricultural households, while there are 12.44% of agricultural households whose heads of households are female and 2.36% of them are poor. In addition, the heads of agricultural households whose last education was junior high school and below dominated as much as 82.85% and 1.70% of them were poor, while those whose last education was high school and above was 17.15% and among them there were 1.03% of poor agricultural households. The majority of agricultural households also have land, namely 83.88% and 1.47% of them are poor agricultural households, while those who do not have land, namely 16.12% and 2.19% of them are poor agricultural households. The dominant business field of heads of households is in the agricultural sector, which is 88.41% and there are 1.43 of them are poor households, while the business field of heads of households that are not in the agricultural sector is only 11.59% and 2.79 of them are poor agricultural households.

**Table 3. Characteristics of Agricultural Households (RTP) in South Kalimantan Province**

Variable	Category	% RTP	% RTP Poor
Classification of Living Areas	Urban	13,03	2,71
	Rural	86,97	1,42
Gender of Head of Household	Law Law	87,56	1,48
	Woman	12,44	2,36
Age of Head of Household	Name Category	*) Figure 2	
	SMA Over	17,15	1,03
The Last Education of the Head of the Household	Junior High School and Below	82,85	1,70
	Name Category	*) Figure 3	
Number of Household Members	Have	83,88	1,47
	Don't have	16,12	2,19
Business Field of Head of Household	Non-Agriculture	11,59	2,79
	Agriculture	88,41	1,43

Source: Susenas March 2023, processed

**Analysis of the Influence of Agricultural Household Characteristics on the Poverty Status of Agricultural Households**

To analyze the influence of household characteristics (in this case, the classification of the area of residence, the gender of the head of the household, the age of the head of the household, the last education of the head of the household, the number of household members, land ownership and the business field of the head of the household) on the poverty status of agricultural

households in South Kalimantan province, a binary logistic regression analysis model was used. The *Maximum Likelihood Estimation* method is an approach taken when trying to estimate the value of parameters in binary logistic regression (Hoshmer, 2000), so that the binary logistic regression equation formed is as follows:

$$g(x) = -8,225 - 0,754x_1 + 1,078x_2 + 0,027x_3 + 0,570x_4 + 0,705x_5 + 0,605x_6 - 0,203x_7$$

where:

- $X_1$  : Variables of Classification of Living Areas
- $X_2$  : variable gender KRT
- $X_3$  : variable age KRT
- $X_4$  : KRT last education variable
- $X_5$  : Variable number of household members
- $X_6$  : Land Ownership Variables
- $X_7$  : KRT business field variable

Before the model is used, the parameters used in the model need to be tested several times, namely testing the model with its empirical data or called *the fit model*, using the Hosmer and Lemeshow tests. In addition, parameter testing was also carried out both simultaneously and partially.

Model Conformance Testing

Model conformance tests are used to determine whether the model used is suitable. This test uses the Hosmer and Lemeshow tests, with the following statistical hypotheses:

- $H_0$  : Shaped model fits
- $H_1$  : The model that is formed does not fit

Decision criteria used

- Reject if  $> H_0 \lambda_{HL}^2 \lambda^2 (\alpha, v)$  or  $p\text{-value} < \alpha=5\%$
- Fail Reject if  $\leq H_0 \lambda_{HL}^2 \lambda (\alpha, v)$  or  $p\text{-value} > \alpha=5\%$

The results of the Hosmer and Lemeshow Test can be seen in Table 4.

**Table 4**  
**Hosmer and Lemeshow Test**

Step	Chi-square	Df	Sig.
1	9.645	8	.291

Source: Susenas March 2023, processed

\*: significant at  $\alpha = 0.05$

Based on the test results, it is shown that the resulting chi-square value has a p-value = 0.291 > 0.05 or = 9.645 <  $\lambda_{HL}^2 \lambda^2 (0.05; 8) = 15.507$  then it fails to refute in other words that the model that has been compiled based on a strong theory is able to explain the dependent variable data used, or the model is compatible with the empirical data  $H_0$ (*goodness of fit*). In other words, the

model used can be used for further analysis.

### Model Goodness Testing

The next *model fit* test, which is to find out the diversity of response variables, can be explained by the predictor variable  $X_i$ , the *Nagelkerke value of R-square can be used*. Based on the results of the analysis, it shows that the magnitude of the *Nagelkerke R-square* value is 0.151 which means that 15.1% of the diversity of dependent variables that can be explained by the independent variables.

### Parameter Testing

This test was carried out to test both simultaneously and partially, the influence of independent variables on dependent variables in the model through statistical tests.

Simultaneous parameter testing. Simultaneous tests or simultaneous tests (comprehensive or together) aim to determine the influence of the independent variables used in the model to be able to explain the non-independent variables together. This test uses the *Omnibus test* or commonly called the likelihood ratio (G) test. The statistical hypothesis used is:

$H_0 : \beta_1 = \beta_2 = \dots = \beta_7 = 0$  (There is no simultaneous influence of the independent variable on the non-independent variable)

$H_1 : \text{at least one } \beta_j \neq 0$  (At least one independent variable that affects the non-independent variable)

with  $J : 1, 2, \dots, 7$ .

### Decision criteria used

Reject  $H_0$  if or  $G > \lambda^2(v, \alpha)$   $p\text{-value} < \alpha$ , where  $v$  is the degree of freedom.

Accept  $H_0$  if or  $G \leq \lambda^2(v, \alpha)$   $p\text{-value} > \alpha$ , where  $v$  is the degree of freedom.

Based on the results of simultaneous testing with the Omnibus test, it was obtained from the *Omnibus Test of Model Coefficient table*, namely by comparing the statistical value of the G test with the value (0.05; 7). Based on this, a chi-square value (G) of 78.300 was obtained with degrees of freedom = 7,  $p\text{ value} = 0.000$ . Based on the value of  $p\text{-value} = 0.000 < \alpha = 0.05$  or  $G = 78.300 > 14.07$ , the decision obtained is reject. Furthermore, it can be concluded that there is at least one independent variable (classification of residential area, gender of the head of the household, age of the head of the household, last education of the head of the household, number of household members, land ownership and business field of the head of the household) which has a significant effect on the non-free variable (poverty status of agricultural households).

Partial parameter testing. To determine the influence of independent variables in this case the classification of residential area, gender of the head of the household, age of the head of the household, the last education of the head of the household, the number of household members, land ownership and the business field of the head of the household) on the poverty status of agricultural households, a partial test was used. The statistical hypothesis used is as follows:

$H_0 : \beta_j = 0$  (no significant influence between the  $j$ th independent variable and the non-independent variable)

$H_1 : \beta_j \neq 0$  (There is a significant influence between the  $j$ th independent variable and the non-independent variable)

Decision criteria used

Reject  $H_0$  if or  $W > \lambda^2(v, \alpha)$   $p$ -value  $< \alpha$ , where  $v$  is the degree of freedom

Accept  $H_0$  if or  $W \leq \lambda^2(v, \alpha)$   $p$ -value  $> \alpha$ , where  $v$  is the degree of freedom

**Table 5. Results of the test on the influence of independent variables on the dependent (partial significance test)**

Variable	$\beta$	Wald	P-val (Sig)	Exp( $\beta$ )	Results
Constant	-8,22	67,71	0,00	0,00	Reject $H_0$
Regional Classification	-0,75	4,76	0,03	0,47	Reject $H_0$
Gender KRT	1,08	7,72	0,00	2,94	Reject $H_0$
KRT Age	0,03	4,43	0,04	1,03	Reject $H_0$

Source: SPSS Output

In Table 5, the results of the wald statistical test show that the value of the wald statistical test is greater than  $(0.05, 1)=3.481$  or the  $\chi^2 p$ -value value is less than  $\alpha=0.05$  is in the variables of classification of living area ( $X_1$ ), gender of the head of household ( $X_2$ ), age of the head of the household ( $X_3$ ), number of household members ( $X_5$ ) so that these four independent variables have a decision of Rejection  $H_0$ , this indicates There are four variables that significantly affect the incidence of poverty status in agricultural households. Meanwhile, the last educational variables of head of household ( $X_4$ ), land ownership ( $X_6$ ) and business field ( $X_7$ ) did not have a significant effect on the incidence of poverty status of agricultural households.

The first variable, namely the classification of residential areas, has a negative effect on the poverty status of agricultural households. With a variable odds ratio value of 0.470, it means that agricultural households living in urban areas have a tendency to be 2.128 times more likely to become poor than agricultural households living in rural areas. Because urban agriculture has limited land and there is still a lack of education for urban farmers to learn self-taught on social media about *urban farming activities*.

The gender variable of the head of the household, obtained a binary logistic regression coefficient of 1.078 and significantly different from zero at  $\alpha= 0.05$ , so that the null hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_1$ ) was accepted, meaning that the poverty status of agricultural households between the genders of female and male heads of households was significantly different. Based on the exponen value  $\beta$  of 2,939. This means that agricultural households with female heads of households have a 2.939 times higher tendency to become poor agricultural households than agricultural households with male heads. This finding is in line with research (Kim et al., 2010), which in its research found that gender has a positive influence on

poverty, which means that gender has an impact on household poverty levels, where households headed by women are prone to becoming poor due to limitations in choosing jobs.

The third variable, namely the age of the head of the household, also shows significance to the poverty status of agricultural households and has an odds ratio of 1.027. The odds ratio value shows that for every age increase of one year, the age of the head of the household has a tendency of 1,027 times to be higher into the poor category.

The last variable is the number of household members which has a positive effect on the poverty status of agricultural households. This is similar to a study by Sadiyah (2012) which concluded that the number of family members has a significant positive effect on household poverty. *The value of the variable odds ratio* is 2.024, which means that the more members of the ladder will have a tendency to be 2.024 times more likely to become a poor agricultural household. This is because the larger the number of household members will affect consumption or household expenditure will increase the tendency to be poorer.

## 4. CONCLUSIONS AND SUGGESTIONS

### Conclusion

Based on the results of the analysis and discussion described earlier, several things can be concluded as follows:

1. The characteristics of agricultural households in South Kalimantan Province in 2023 are dominated by those who live in rural areas, the head of the household is male, the average age is 45 to 55 years, the last education is below junior high school, the number of household members is 3 to 4 people, has land ownership and the head of the household has an agricultural business and of the 3,400 agricultural households, there are 1.59 percent of them who have poor status.
2. Based on the results of binary logistic regression analysis, there is a significant influence of the variables of residential area classification, gender of the head of household, age of the head of the household, and number of household members on the poverty status of agricultural households in South Kalimantan Province in 2023. The number of household members is the variable that most affects the poverty status of agricultural households, because it has the largest odds *ratio*.

### Suggestion

Some of the things that can be suggested from the findings of this study are as follows:

1. This study shows that poor agricultural households are 1.59%. Even though it is only a small group, these poor agricultural households should not be neglected, the local government must solve it with various poverty alleviation programs and agricultural assistance programs.
2. Agricultural households in South Kalimantan Province are dominated by plantation subsectors and rice and palm crops, therefore the government is expected to further optimize agricultural programs in the two subsectors so that their productivity will be better and later directly or indirectly increase the welfare of agricultural households.
3. Regional governments in countermeasures should not only be focused on rural areas but must also pay attention to agricultural sector workers in urban areas, one of which is by providing counseling about modern agriculture in urban areas (*urban farming*). Improving the skills of women farmers by actively participating in various agricultural programs, one of which is with the Women Farmers Group (KWT). In addition, improving the Family Planning (KB)

program is also still very necessary. Although most of the members of agricultural households are less than equal to 4 people, the number of household members is still significant in affecting poverty in agricultural households.

4. Further research on household poverty, especially agricultural households, needs to be carried out with a wider scope, to obtain more representative results (such as using 2023 Agricultural Census data) and by adding other variables that have not been covered in this study, including household character factors other than socio-demographics.

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