Analysis Of Women’s Employment Opportunities In The Agricultural Sector In South Kalimantan Province (Based On Sakernas Survey February 2017)

Agus Salim, Dr. Yudi Ferrianta, SP, MP, Dr. Ir. Emy Rahmawaty, MP
Agricultural Economics Study Program, Faculty of Agriculture Universitas Lambung Mangkurat, South Kalimantan

Corresponding Author: Agus Salim

Abstract: Women's participation and gender equality must be implemented in various sectors, including agriculture. There are 49.28 percent of the population in South Kalimantan in 2017 are women. While women of productive age (age 15-64) grows 1.50 percent on average per year during 2016-2020. Both of these conditions indicate that women are potential capital in development. In other conditions, South Kalimantan women work in the agricultural sector namely 37.28 percent of all women worker. This women's participation provides support to the regional economy. In total, the share of the agricultural sector by 14.59 percent in 2017 placed this sector in the second largest position after the mining and quarrying sector. This study aims to analyze the condition of women working in the agricultural sector in South Kalimantan, and more specifically to see the influence of age, number of household members, marital status and level of education of women and the influence of the type of area of residence on a woman's employment opportunities in the agriculture sector. The binary logistic regression used in the study to analyse the data. The results showed that age, number of household members, marital status, and level of education of the woman and the influence of the type of area of residence affected the opportunity for a woman to work in the agricultural sector. The opportunity for a woman to work in the agricultural sector is greater for those who are older, having 2 (two) household members, live in rural areas, have lower education, and are married.

Keywords: working women, agriculture, binary logistic regression, employment opportunities

I. Introduction

Women's participation and gender equality must be implemented in various sectors, including agriculture. The potential of women as strategic human resources makes it necessary for efforts to include women in the development process. Women's participation concerns the role of tradition and transition. The role of tradition includes the role of wife, mother and manager of the household. While the role of transition includes the notion of women as labor, members of society and human development. In the transitional role of women as laborers, they are actively involved in economic activities (earning an income) in various activities in accordance with the skills and education they have and available employment (Sukesi, 1991).

Projection of Regency / City Population in South Kalimantan Year 2010-2020 showed that in 2017, the total population of women is 2.03 million people or 49.28 percent of the total population of South Kalimantan. Based on age group, the population of women in the productive age (age 15-64) increased by 1.50 percent per year during the period 2016-2020. This shows that women are potential capital and social assets that need to be increased in participation. Increasing the labor market is one of the efforts to increase women's workforce participation rate. Most of them are related to opportunities for women to work in various sectors, improving wages, and extending working hours (Ritonga, 2014).

South Kalimantan is a province that has entered a demographic bonus (demographic dividend) with a dependency ratio of 48.62 percent (BPS, SP2010). The demographic bonus is an economic benefit caused by an increase in the population of productive age. This phenomenon means that the proportion of young people is declining so that investments to meet their needs are reduced and resources can be diverted to spur economic growth and family welfare (John Ross, 2004).

Sri Moertiningsih Adioetomo, professor of the Faculty of Economics, University of Indonesia (FEUI), said there are several conditions so that the bonus demographic benefits can be obtained, namely a) A large supply of productive labor must be balanced to the employment so income per capita increases and savings will increase the national saving; b) Household savings are invested in productive activities; c) The role of women who also enter the labor market, helps increase income; and d) The budget previously used for children aged 0-
15 years because of the reduced amount, can be diverted to increase human resources for ages 15 years and over.

Women have to have same opportunity as men to participate in the working matters. This is stated in the Indonesia’s 1945 Constitution, even international conventions and legislation in Indonesia also protect the rights of working women. The level of employment opportunities of South Kalimantan women has also reached 97.52 percent or nearly 98 women ‘successfully’ getting jobs from 100 women job seekers (BPS, 2017).

The indicator used to find out the description of economically active population is the Labor Force Participation Rate (LFPR). LFPR is calculated by comparing the workforce population to the number of working age population. Based on LFPR, the government can plan and make policies related to the supply of labor and labor markets in the region so that the workforce can be absorbed optimally and efficiently. This will encourage economic growth through increased production of goods and services.

The results of the National Labor Force Survey (Sakernas Survey) during the period 2006-2017 by the BPS showed that the LFPR of women in South Kalimantan was above 50 percent. The LFPR of South Kalimantan female population in February 2017 was 61.49 percent. It shows that out of 100 South Kalimantan women, 61 of them have been actively involved in the labor market.

LFPR is an indicator for the government in providing space for gender equality in participation and employment opportunities, especially education and employment in the formal sector. In addition, it can also be seen how much the motivation of women to work both in the urban and in the rural area. Women's LFPR can be increased because women have many potentials for contributing to the economic development. LFPR is also a relative indication of the available labor supply involved in the production of goods and services. The large number of women who work will improve welfare, individual and household quality, and also the economic growth in a region.

There is a gap between men’s LFPR and women’s LFPR over the past fifteen years which ranged from 25-35 percent. The Sakernas Survey results in February 2017 noted that men’s LFPR were 85.09 percent and women’s LFPR were 61.49 percent. Women's LFPR tend to continue increasing from 2007-2017 but proportional to men’s LFPR.

The percentage of the population who did not participate actively in the labor market and who were also not attending school according to age group and sex in South Kalimantan are increasing by the increase of the age. For the women, the highest percentage is in the age group 15-19 years and age 60 years over. The higher the percentage indicates the potential for loss (potential loss) to increase gross domestic product (GDP).

Gap between women and men workers happens, reflect from the most women work in the agricultural and trade sectors. The Sakernas Survey in February 2017 showed that women working in the agricultural sector were 35.83 percent and 22.77 percent in the trade sector. Women who work in the transportation and warehousing sector are very small compared to other sectors. Women who work in the agricultural sector tend to be larger, but their employment status is dominated by unpaid workers and also as workers / employees.

Percentage of women work in the agricultural sector (37.28 percent) and have the status of family workers / not paid are the largest percentage. While the contribution of the agricultural sector is 14.59 percent to the economy of South Kalimantan. Based on this description, the conditions of women working and their opportunities to work in the agricultural sector are visible. Then in the trading sector women have a high degree of dominance when compared to men, but the contribution of the trade sector is smaller for the economy of South Kalimantan at 11.65 percent.

This research aims to understand the opportunities for women to work in the agricultural sector, in South Kalimantan. The description of working women and the factors that cause women to work in South Kalimantan are needed in this study. Based on the background and description, the problem in this study is the condition of women working in the agricultural sector, how much age influences women work on the agricultural sector, how much household members have influences on women working in the agricultural sector, how much education influences on women working in the agricultural sector, how much the marital status influences on women work in the agricultural sector, how much the classification of regions influences on women working in the agricultural sector.

Based on those problems, this study aims to analyze the condition of women working in the agricultural sector in South Kalimantan in 2017 based on the age, number of household members, marital status, level of education and the regional classification.

II. Methods

This research conducted in South Kalimantan Province on February 2017 to August 2018 based on the results of the National Labor Force Survey (Sakernas Survey) by the BPS-Statistics Indonesia. The research starts from the stage of making proposals, processing data until the completion of the research report.
Types and Data Sources
This study uses secondary data sourced from the results of the National Labor Force Survey (Sakernas) in February 2017 conducted by BPS of South Kalimantan Province. Sakernas is a survey designed to collect population social data related to employment. The data used in this study are categorical and nominal scale data for the independent variable and ordinal scale for the dependent variable. The type of research used is explanatory research, namely the clausal relationship.

Operational Definition of Variables
For the sake of inferential analysis, it is necessary to make an operational definition of variables that are thought to have an influence on the working women.
1. Dependent Variable
   The dependent variable in this study is women population aged 15 years and over who are defined into 2 categories, namely:
   \[ Y = 1; \text{Women aged 15 years and over who work in the Agriculture Sector} \]
   \[ Y = 0; \text{Women aged 15 years and over who work in the non-agricultural sector} \]
2. Independent Variables
   a. Age (AGE) is the age of individu during the enumeration
   b. The number of household members (HH) is all people who usually reside in a household
   c. Marital Status. This variable is divided into 4 categories, those are:
      \[ \text{MAR}_1 = \text{Married} \]
      \[ \text{MAR}_0_1 = \text{Not married yet} \]
      \[ \text{MAR}_0_2 = \text{Divorced} \]
      \[ \text{MAR}_0_3 = \text{Death divorce} \]
   d. Education
      Education is divided into three categories, namely:
      \[ \text{EDUC}_1 = \text{Primary/Low education (Elementary-Junior High School)} \]
      \[ \text{EDUC}_0_1 = \text{Secondary education (Senior High School)} \]
      \[ \text{EDUC}_0_2 = \text{Higher education (Diploma/University)} \]
   e. Classification of Area
      The type of area is divided into 2 (two) categories, namely:
      \[ \text{Area}_1 = \text{Rural} \]
      \[ \text{Area}_0 = \text{Urban} \]

Analysis Method
The analytical methods used in this study are descriptive and inferential analysis.
1. Descriptive Analysis
   Descriptive analysis is used to provide an overview of general information based on secondary data in the form of cross tabulation between the dependent variable and the independent variable, namely women aged 15 years and over who work in the agricultural sector.
2. Inferential Analysis
   Binary logistic regression statistics were used for the inferential analysis. Use of this model because the dependent variable is a categorical variable. The use of the model to see the extent of the relationship between the dependent variable and the independent variables, what are the most significant variables affecting the determinant of the population of women working in the agricultural sector in South Kalimantan in February 2017.
3. Logistic Regression Equation
   Binary logistic regression models in this study are:
   \[
   \ln \left( \frac{P_1}{P_0} \right) = \beta_0 + \beta_1 \text{AGE} + \beta_2 \text{HH} + \beta_{31} \text{MAR}_0_1 + \beta_{32} \text{MAR}_0_2 + \beta_{33} \text{MAR}_0_3 + \beta_{41} \text{EDUC}_0_1 + \beta_{42} \text{EDUC}_0_2 + \beta_5 \text{AREA}
   \]

Notes:
\( P_1 = \text{Probability for Women Aged 15 Years and Over work in the Agriculture Sector} \)
\( P_0 = \text{Probability for Women Aged 15 and Over Working in the Non-Agricultural Sector} \)
β₀ = Constant  
βᵢ = Constants for the i independent variable  
AGE = Age  
HH = Number of household members  
MAR₀₁ = Women who work are not married to women who are currently married  
MAR₀₂ = Women who work are divorced to women who are currently married  
MAR₀₃ = Women who work are death-divorced to women who are currently married  
EDUC₀₁ = Women with a secondary education (high school) compared to women with basic education  
EDUC₀₂ = Women with a higher education (high school) compared to women with basic education  
AREA = Women living in urban areas compared to women live in rural areas

### III. Result And Discussion

#### Descriptive Analysis

Descriptive data analysis of the research unit, namely the population of women aged 15 years and over (working age) who are classified as working women and women not working. The study used the Sakernas data in February 2017. The factors that allegedly influenced women to decide to work were age, number of household members, marital status, education level and type of region.

Education level is one of the determinants in women's decisions to work. The higher the level of education of a person, in addition to increasing the ability also the freedom of choice, including freedom in choosing the type of work.

The percentage of women working in the agricultural sector has decreased with the increase in the level of education they have completed. Women who work in the agricultural sector with a maximum level of junior secondary education are 49.6 percent. This number has decreased at the level of high school equivalent equal to 15.6 percent while the Diploma upwards is equal to 0.9 percent.

In this study, working age women were women aged 15 years and over. Based on Figure 4.1 it is known that women who work in South Kalimantan are dominated by workers in the non-agricultural sector. More than half of South Kalimantan women work not in the agricultural sector. The increasing age, the proportion of women working in the agricultural sector is also increasing.

The number of household members is one of the determinants in women's decisions to work. The more members of the household, the lower the chance for women to work. The largest proportion is women with 3-4 household members, 54.17 percent. The agricultural sector has a slightly different pattern from the non-agricultural sector based on the number of household members. The agricultural sector tends to decrease as the number of household members increases, where the maximum percentage of women working on agriculture is the number of household members of 2 people.

Marriage status is one of the factors that influences a person in deciding the level of income and daily activities. A person who is not married does not yet have a family dependency which tends not to work because there are still parents or other family members who bear their personal needs. The lack of demand as a person in charge in the family causes most of those who are not married to tend to choose the desired job.

Based on the results of the Sakernas in February 2017 it was noted that only about 16.81 percent of women aged 15 years and above were unmarried, whose past activities were working in the agricultural sector. In contrast to Married women tend to work more in the agricultural sector (41.91 percent) to help husbands or families in agricultural activities.

The similarity of the pattern between marital status and the number of household members for women working in the agricultural sector can be seen in those who are divorced. Whereas women with two household members or more are dominated by married women. The highest percentage of women working in the agricultural sector is married women with five household members.

Women aged 15 years and over in South Kalimantan who work in the agricultural sector as much as 37.8 percent. There is a difference between the proportion of women working in the agricultural sector who live in rural and urban areas. As many as 54.7 percent of women aged 15 years and over in rural areas are women working in the agricultural sector. This figure is far different from women working in the agricultural sector in urban areas, which is as much as 16.4 percent. The higher percentage of women working in rural areas is suspected to be due to the dominance of the agricultural sector in rural areas.

#### Logistic Regression Analysis

The data source in this study was the Sakernas Survey in February 2017. The data analyzed were female individuals aged 15 years and over who worked with a sample of 958 women.
Dependent variables used are women aged 15 years and over who worked a week ago, which are divided into two categories, namely women aged 15 years and over who work in the non-agricultural sector (code 0) and women aged 15 years and over who work in the sector agriculture (code 1).

The independent variables in this study were Age group, Number of household members, Marital status, Education level and Regional classification (urban-rural). The variables of the Number of household members and Age are quantitative data, while the other three variables are qualitative data with each variable category as explained previously.

The analytical method used is logistic regression analysis using backward stepwise (wald). This method will delete variables that do not significantly affect the dependent variable so that the best model can be obtained. Because using the Backward Stepwise method, the results used are in the last step (last model). The results of running data using these methods are as follows:

Table 1. The results of backward stepwise (wald) logistic regression tests on the Sakernas Data February 2017

<table>
<thead>
<tr>
<th>Variabel</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X_AGE</td>
<td>0.036</td>
<td>0.008</td>
<td>22.267</td>
<td>1</td>
<td>0.000</td>
<td>1.038</td>
</tr>
<tr>
<td>X_HH</td>
<td>-0.110</td>
<td>0.063</td>
<td>3.109</td>
<td>1</td>
<td>0.078</td>
<td>0.896</td>
</tr>
<tr>
<td>X_MAR</td>
<td>20.134</td>
<td>3</td>
<td>2.471</td>
<td>1</td>
<td>0.500</td>
<td>1.024</td>
</tr>
<tr>
<td>X_MAR(1)</td>
<td>-0.335</td>
<td>0.318</td>
<td>1.284</td>
<td>1</td>
<td>0.260</td>
<td>0.711</td>
</tr>
<tr>
<td>X_MAR(2)</td>
<td>-1.433</td>
<td>0.375</td>
<td>14.624</td>
<td>1</td>
<td>0.000</td>
<td>0.097</td>
</tr>
<tr>
<td>X_MAR(3)</td>
<td>-0.712</td>
<td>0.275</td>
<td>6.851</td>
<td>1</td>
<td>0.009</td>
<td>0.491</td>
</tr>
<tr>
<td>X_EDUC</td>
<td>46.889</td>
<td>2</td>
<td>97.139</td>
<td>1</td>
<td>0.000</td>
<td>0.182</td>
</tr>
<tr>
<td>X_EDUC(1)</td>
<td>-1.318</td>
<td>0.240</td>
<td>30.224</td>
<td>1</td>
<td>0.000</td>
<td>0.268</td>
</tr>
<tr>
<td>X_EDUC(2)</td>
<td>-4.341</td>
<td>1.015</td>
<td>18.308</td>
<td>1</td>
<td>0.000</td>
<td>0.013</td>
</tr>
<tr>
<td>X_AREA(1)</td>
<td>-1.717</td>
<td>0.179</td>
<td>91.397</td>
<td>1</td>
<td>0.000</td>
<td>0.181</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.308</td>
<td>0.431</td>
<td>4.735</td>
<td>1</td>
<td>0.029</td>
<td>0.703</td>
</tr>
<tr>
<td>X_AGE</td>
<td>0.037</td>
<td>0.008</td>
<td>22.267</td>
<td>1</td>
<td>0.000</td>
<td>1.038</td>
</tr>
<tr>
<td>X_MAR</td>
<td>18.529</td>
<td>3</td>
<td>2.471</td>
<td>1</td>
<td>0.500</td>
<td>1.024</td>
</tr>
<tr>
<td>X_MAR(1)</td>
<td>-0.356</td>
<td>0.314</td>
<td>1.284</td>
<td>1</td>
<td>0.260</td>
<td>0.711</td>
</tr>
<tr>
<td>X_MAR(2)</td>
<td>-1.365</td>
<td>0.375</td>
<td>14.624</td>
<td>1</td>
<td>0.000</td>
<td>0.097</td>
</tr>
<tr>
<td>X_MAR(3)</td>
<td>-0.641</td>
<td>0.275</td>
<td>6.851</td>
<td>1</td>
<td>0.009</td>
<td>0.491</td>
</tr>
<tr>
<td>X_EDUC</td>
<td>46.365</td>
<td>2</td>
<td>97.139</td>
<td>1</td>
<td>0.000</td>
<td>0.182</td>
</tr>
<tr>
<td>X_EDUC(1)</td>
<td>-1.312</td>
<td>0.240</td>
<td>30.224</td>
<td>1</td>
<td>0.000</td>
<td>0.268</td>
</tr>
<tr>
<td>X_EDUC(2)</td>
<td>-4.296</td>
<td>1.015</td>
<td>18.308</td>
<td>1</td>
<td>0.000</td>
<td>0.013</td>
</tr>
<tr>
<td>X_AREA(1)</td>
<td>-1.702</td>
<td>0.179</td>
<td>91.397</td>
<td>1</td>
<td>0.000</td>
<td>0.181</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.803</td>
<td>0.328</td>
<td>5.992</td>
<td>1</td>
<td>0.014</td>
<td>0.448</td>
</tr>
</tbody>
</table>

The following are the Logistic Regression Model Test Results produced:

Logistic regression estimation results:
1) Simultant Test
Simultaneous tests can be seen in the SPSS results for the Iteration History table. With $\alpha = 0.05$ and the degree of freedom (df) $K = 5$, where $k$ is the number of independent variables, then $\chi^2(p)$ is obtained from the chi-square table of 9.488. Because $-2(L_0-L_1) > \chi^2(p)$, it can be concluded that all the independent variables in step 2 have a significant effect on variable Y.

2) Overall Test
Overall test can be done by using the result of omnibus test. The results are as follows:
- Hypothesis:
  - $H_0$: There is no X variable that significantly affects the Y variable
  - $H_1$: At least one variable X has a significant effect on variable Y
- Level of significance: $\alpha = 0.05$
- Critical areas: Reject $H_0$ if Sig < 0.05
- Test statistics: Sig. = 0.000
Test Decision: based on the omnibus test, it can be seen that $\text{sig} = 0.000$ which means less than 0.05 so that $H_0$ is rejected.

Conclusion: $G^2$ value is 319.351 with p-value 0.000 (Model) which means with a confidence level of 95 percent, there is at least one independent variable which affects the dependent variable. So, it can be concluded that the model can be used for further analysis.

3) Hosmer Lemeshow Test

This test is conducted to see whether the resulting regression model is able to explain the data. The test results are explained as follows:

- Hypothesis:
  - $H_0$: The model is appropriate and able to explain the data
  - $H_1$: The model is not enough to explain the data
- Level of significance: $\alpha = 0.05$
- Critical area: Reject $H_0$ if $\text{sig} < 0.05$
- Test statistics: $\text{Sig.} = 0.722$
- Decision: $\text{sig} = 0.722 > 0.05$, so $H_0$ cannot be refused
- Conclusion: with a confidence level of 95 percent, then $H_0$ cannot be rejected. In other words, it can be concluded that the logistic regression model used at each step has been able to explain the data.

4) Nagelkerke R-Square

Cox and Snell's R Square are measures that try to replicate the size of $R^2$ on multiple regression based on the technique of estimating likelihood but with a maximum value of less than one so that it is difficult to interpret. Negelkerke $R^2$ is a modification of the cox and snell coefficients to ensure that the values vary from 0 to 1. This is done by dividing the cox and snell's R Square values by their maximum values.

The results of the test calculations in this study, the value of Cox & Snell's R Square is 0.283 and the value of Nagelkerke R Square is 0.386 which means that the variability of the dependent variable in this study can be explained by the independent variable of 38.6 percent. While the rest, which is equal to 61.4 percent is explained by the variability of variables outside the independent variables included in this logistic regression model.

5) Classification plot

<table>
<thead>
<tr>
<th>Conditions for women aged 15 and above who work</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Agricultural Sector</td>
<td>80.4</td>
</tr>
<tr>
<td>Agriculture Sector</td>
<td>69.3</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td>76.2</td>
</tr>
</tbody>
</table>

Table 3 shows that the logistic regression model in this study was able to classify the conditions of women aged 15 years and over who worked in the agricultural sector at 69.3 percent, and overall able to correctly classify 76.2 percent of the actual conditions that occurred.

6) Partial Test

Partial tests were conducted to see the significance of each independent variable on the dependent variable. The variable number of household members is removed from the model because it does not significantly affect the working female variable (the null hypothesis is rejected because of $\text{sig} > 5$ percent).

**Hypothesis**:

- **Age**
  - $H_0: \beta_1 = 0$, meaning that the age of women aged 15 years and over who work does not significantly affect the opportunity to work in the agricultural sector.
  - $H_1: \beta_1 \neq 0$, meaning that the age of women aged 15 years and over who work significantly affects the opportunity to work in the agricultural sector.

- **Marital Status**
  - $H_0: \beta_3 = 0$, meaning that the marital status of women aged 15 years and over who work does not significantly affect the opportunity to work in the agricultural sector.
  - $H_1: \beta_3 \neq 0$, meaning the marital status of women aged 15 years and over who work significantly affects the opportunity to work in the agricultural sector.
(1) Unmarried women
H₀ : β₃₁ = 0, meaning that women who work in unmarried status are no different from women who are married in the opportunity to work in the agricultural sector.
H₁ : β₃₁ ≠ 0, meaning that women who work in unmarried status are different from women who are married in the opportunity to work in the agricultural sector.

(2) Divorced women
H₀ : β₃₂ = 0, meaning that women who work in divorce status are not different from women who are married in the opportunity to work in the agricultural sector.
H₁ : β₃₂ ≠ 0, meaning that women who work in divorce status are different from women who are married in the opportunity to work in the agricultural sector.

(3) Death-divorced women
H₀ : β₃₃ = 0, meaning that women who work in death-divorce status are no different from women who are married in the opportunity to work in the agricultural sector.
H₁ : β₃₃ ≠ 0, meaning that women who work in death-divorce status are different from women who are married in the opportunity to work in the agricultural sector.

Education
H₀ : β₄ = 0, meaning that the education of women aged 15 years and over who work does not significantly affect the opportunity to work in the agricultural sector.
H₁ : β₄ ≠ 0, meaning that the education of women aged 15 years and over who work significantly influences the opportunity to work in the agricultural sector.

(1) Women with secondary education (high school)
H₀ : β₁₂ = 0, meaning that women who work in low education are no different from women with secondary education (high school) in the opportunity to work in the agricultural sector.
H₁ : β₁₂ ≠ 0, meaning that women who work in low education are different from women with secondary education (high school) in the opportunity to work in the agricultural sector.

(2) Highly educated women
H₀ : β₁₃ = 0, meaning that women who work in low education are no different from women with higher education (university) in the opportunity to work in the agricultural sector.
H₁ : β₁₃ ≠ 0, meaning that women who work in low education are different from women with higher education (tertiary institutions) in the opportunity to work in the agricultural sector.

Area Classification
H₀ : β₅ = 0, This means that women workers aged 15 years and over who live in rural areas are not different from those who live in urban areas in the opportunity to work in the agricultural sector.
H₁ : β₅ ≠ 0, This means that women workers aged 15 years and over who live in rural areas are different from those who live in urban areas in the opportunity to work in the agricultural sector.

Variables that can be included in the model are variables of age, marital status, education, and classification of residential areas. The first step variable is the number of household members not significant to the model so that it is excluded from the model. Below is a table of results of the partial test variable in the second step and in detail the results of the partial test of all independent variables.

Table 4. Partial Test of Independent variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Hypothesis</th>
<th>Wald</th>
<th>Sig.</th>
<th>Decision</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>H₀ : B₄=0</td>
<td>22.267</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₄≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>H₀ : B₃=0</td>
<td>18.529</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₃≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAR0₁</td>
<td>H₀ : B₁₁=0</td>
<td>1.287</td>
<td>.257</td>
<td>Accept H₀</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₁₁≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAR0₂</td>
<td>H₀ : B₁₂=0</td>
<td>13.619</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₁₂≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAR0₃</td>
<td>H₀ : B₁₃=0</td>
<td>5.723</td>
<td>.017</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₁₃≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>H₀ : B₅=0</td>
<td>46.365</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₅≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDUC0₁</td>
<td>H₀ : B₂₁=0</td>
<td>30.036</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₂₁≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDUC0₂</td>
<td>H₀ : B₂₂=0</td>
<td>17.952</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₂₂≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td>H₀ : B₆=0</td>
<td>96.436</td>
<td>.000</td>
<td>Reject H₀</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>H₁ : B₆≠0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note : Reject H₀ if Sig. < α (5%)
7) Parameter Estimation
The logistic regression model that is formed is:

\[
\ln \left( \frac{p_1}{p_0} \right) = 0.803 + 0.037\text{AGE} - 0.356\text{MAR0}_1 - 1.365\text{MAR0}_2 - 0.641\text{MAR0}_3 - 1.312\text{EDUC0}_1 - 4.296\text{EDUC0}_2 - 1.702\text{AREA}
\]

Notes:
- \( \text{Age} \) = Woman working age
- \( \text{MAR0}_1 \) = Women aged 15 years and over who work with unmarried status for women aged 15 years and over who work in marriage status
- \( \text{MAR0}_2 \) = Women aged 15 years and over who work divorced life status married to women aged 15 years and over who work in marriage status
- \( \text{MAR0}_3 \) = Women aged 15 years and over who work divorced status for women aged 15 years and over who work in marriage status
- \( \text{EDUC0}_1 \) = Women aged 15 years and over who work with lower education (junior high school and below) for women aged 15 years and over who work
- \( \text{EDUC0}_2 \) = Women aged 15 years and over who work with Secondary Education (SMA equivalent) for women aged 15 years and over who work
- \( \text{Area} \) = Women aged 15 years and over who work in urban areas against women aged 15 years and over who work in rural areas

The above equation is a model formed from logistic regression analysis. The significance of each coefficient has been described previously. It can be interpreted that the factors that influence working women are age, marital status, education and type of area.

Tendencies for Women to Work in the Agricultural Sector compared to Women Working in the Non-Agricultural Sector
Interpretation of the opportunity of each variable statistically in the above equation uses the coefficient value (B) and also the \( \text{EXP}(B) \) value, better known as the odds ratio of each variable. Can be explained the opportunity of women aged 15 years and over who work in the agricultural sector compared to women aged 15 years and over who work in non-agriculture with the following characteristics:

**AGE:**
- AGE has a positive coefficient value of 0.037 and \( \text{Exp}(B) \) of 1.038. This means that women who work have a greater tendency to work in the agricultural sector along with the increase in their age. Every additional one year old, the tendency of women to work in the agricultural sector increases to 1.038 times. These findings are in accordance with the research hypothesis that the opportunity for women to work in the agricultural sector will increase with age.

**MARITAL STATUS:**
- \( \text{MAR0}_1 \) Because the coefficient is negative 0.356 means that unmarried women who work have a smaller tendency to work in the agricultural sector. The opportunity for unmarried women who work in the agricultural sector is 0.700 times compared to women working with married status, even though it is not statistically significant.
- \( \text{MAR0}_2 \) Because the coefficient is negative 1.365 means that divorced women who work have a smaller tendency to work in the agricultural sector. The opportunity for divorced women who work in the agricultural sector is 0.255 times compared to women working with married status.
- \( \text{MAR0}_3 \) Because the coefficient is negative 0.641 means that death-divorced women who work have a smaller tendency to work in the agricultural sector. The opportunity for death-divorced women who work in the agricultural sector is 0.527 times compared to women working with married status.

**EDUCATION:**
- \( \text{EDUC0}_1 \) (Secondary education) has a negative coefficient of 1.312 and \( \text{Exp}(B) \) 0.269. This means that women with secondary education have a smaller tendency than women with low levels of education to work in the agricultural sector. The opportunity for women to work in the agricultural sector with secondary education is 0.269 times compared to women with low levels of education.
EDUC02 (Higher education) has a negative coefficient of 4.296 and Exp (B) 0.014. This means that women with a higher education have a smaller tendency than women with low levels of education to work in the agricultural sector. The opportunity for women to work in the agricultural sector with a higher education is 0.014 times compared to women with low levels of education.

The coefficients of Exp (B) variables Didik01 and Didik02 show that women who work with a higher level of education to work have a smaller chance than women with secondary education. These findings are in accordance with the research hypothesis that women with low levels of education have a greater opportunity to work in the agricultural sector.

AREA has a negative coefficient of 1.702 and Exp (B) of 0.182. This means that women in urban areas have a tendency to work compared to women in urban areas. The opportunity for working women living in urban areas to work in the agricultural sector is 0.182 times compared to women living in rural areas. It can be interpreted that working women living in rural areas have a greater opportunity to work in the agricultural sector compared to women who live in urban areas.

IV. Conclusions And Recommendations

Conclusions
1. The description of the condition of women working in South Kalimantan:
   a. The proportion of women aged 15 years and over who work in South Kalimantan based on their business sector is 62.21 percent of women working in the non-agricultural sector (Industry and services) and 37.79 percent working in the agricultural sector.
   b. The proportion of women working in the agricultural sector is getting bigger along with age.
   c. The proportion of women working in the agricultural sector is greater for women who are married.
   d. The proportion of women working in the agricultural sector is greater for women with low levels of education.
   e. The proportion of women in rural areas who work in the agricultural sector is greater than women in urban areas.
   f. The proportion of women working in the agricultural sector is greater for women with 2-3 household members.
2. The relationship between age, number of household members, marital status, education level and type of area in influencing the tendency of working women in South Kalimantan was explained using inferential analysis. Based on the logistic regression model, the following conclusions are taken:
   a. The increasing age of women who work, the greater the chance to work in the agricultural sector. Women will tend to enter the workforce, especially agriculture, when their children grow up so they can be free to participate in the work.
   b. Opportunities for married women to work in the agricultural sector tend to be greater than other marital status (not married / divorced / death-divorced).
   c. Women with low education levels are more likely to work in the agricultural sector. This indicates that being able to work in the agricultural sector does not require high education.
   d. Women in rural areas have a greater chance to work in the agricultural sector. Natural factors and the majority of the population in rural areas working in the agricultural sector can be a factor supporting women in rural areas working in the agricultural sector.

V. Recommendations

Based on the discussion of the research and conclusions outlined, several suggested policies are:
1. Improving the quality and quantity of education through compulsory education, establishing vocational high schools (SMK) in agriculture, and pioneering agricultural education in universities by the central government and regional governments. With the better level of education of women, especially in agriculture, it will become a big capital for women to actively participate in advancing the agricultural sector, so that the family economy will increase and the role of the agricultural sector will also be increasing the regional income.
2. Promoting family resilience development programs so the women in South Kalimantan can work more freely, especially in the agricultural sector without having to forget their duties to take care of the family.
3. Paying attention to the agricultural sector to support the absorption of female labor in the agricultural sector, because agricultural sector is a sector with high labor absorption.
4. Conducting further research to solve labor problems that are very complex so as to produce more effective policies in improving the quality of the agricultural sector workforce in South Kalimantan.
Analysis Of Women’s Employment Opportunities In The Agricultural Sector In South Kalimantan Province

References


[5]. Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional Bab IV Pasal 14.

[6]. Undang-undang Republik Indonesia Pasal 1 Nomor 1 Tahun 1974 tentang perkawinan


DOI: 10.9790/2380-1206024453 www.iojsrjournals.org 53 | Page