Factors Analysis of Household Poverty in Rural Area of West Kalimantan, Indonesia

Susilo Nur Aji Cokro Darsono¹ and Mongkon Donkwa²

Abstract

The purpose of this study was to analyze the factors such as education level, family member, working days, age and loan which influence to household poverty in rural area of West Kalimantan. The study was conducted in Senujuh Village, Sejangkung Sub-district, Sambas Regency, West Kalimantan. There are 352 Households in Senujuh Village, with a sample of 80 poor households which find out based on the Simple Random Sampling from 105 household which listed as poor. The instrument of data collection used questionnaires and interviews. The study use Descriptive Statistics to describe the household poverty in rural area, furthermore Multiple Linear Regression was used to analyze the factors that influence household poverty in rural area of West Kalimantan.

The results showed that 45% head of household were not educated, elementary school level 43.7%, junior high school 8.8% and only 2.5% have senior high school level. Based on the analysis of factors affecting the household poverty in rural area, it was found that the variables of working days and debt have positive significant impact on household poverty. Age of household head has negative significant impact on household poverty. While, education level and family size do not have significant impact on household poverty in this study area.

JEL classification numbers: I30, I32

Keywords: Household Poverty, Poverty in Rural Area, Indonesia

1 Background

¹ Master of Rural Development Management, Khon Kaen University, Khon Kaen, Thailand
² Faculty of Education, Khon Kaen University, Khon Kaen, Thailand

Article Info: Received: July 2, 2016. Revised: October 5, 2016. Published online: November 15, 2016.
Poverty is a complex problem that faced by almost developing countries since many years ago. It is interlinked with many factors, such as education, employment, income, health, age, gender, natural resources, environment, political conditions and etc. According to Coudouel et al. (2002) poverty is the abilities or resources which have by households or individuals today to meet their needs. World Bank (World Bank, 2008) categorizes poverty into extreme poverty which is living less than US$ 1.25 per day and moderate poverty which is living less than US$ 2 per day. While, according to Indonesian Statistic Center, poverty defined as lack of economic ability to fulfill basic needs. So, poor people is the people who have average of monthly expenses below the poverty line (Indonesian Statistic Center, 2015).

<table>
<thead>
<tr>
<th>Year</th>
<th>Poverty in Indonesia (in Million People)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>2013</td>
<td>10,634</td>
<td>17,919</td>
</tr>
<tr>
<td>2014</td>
<td>10,356</td>
<td>17,371</td>
</tr>
<tr>
<td>2015</td>
<td>10,619</td>
<td>17,893</td>
</tr>
</tbody>
</table>

Source (Statistics Indonesia, 2016)

Indonesia is one of the developing countries that has large number of poor population. According to the table above, in 2013, the number of poor population in Indonesia is around 28,553 million people. Which consist of urban poverty such as 10,634 million people and Rural poverty such as 17,919 million people. The total number of poverty in Indonesia decreased in 2014 become 27,727 million people, Urban poverty such as 10,356 million people and Rural poverty such as 17,371 million people. It decreased 0.5% of poverty in Indonesia from 2013. Meanwhile, in 2015 total number of poverty in Indonesia increased to 28,513 million people which consists of urban poverty such as 10,619 million people and rural poverty such as 17,893 million people.

In Indonesia, rural poverty mostly happens in the remote area. Many villages in Indonesia are located in remote area, such as mountainous area, remote islands, forestry area and border area. They lack of access to the capital city, so the income distribution is not equal. Inequality of income distribution makes unequal development. Development in some of rural area is very slow. It makes the people in those area hard to get out of vicious cycle. The poverty condition is difference among one provinces to another provinces in Indonesia (see table 2).
Table 2. Village Development Index in Kalimantan

<table>
<thead>
<tr>
<th>Province</th>
<th>VDI 2014</th>
<th>Village Percentage according to Village Typology</th>
<th>Number of Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Underdeveloped</td>
<td>Developing</td>
</tr>
<tr>
<td>West Kalimantan</td>
<td>49.85</td>
<td>50.58</td>
<td>48.22</td>
</tr>
<tr>
<td>Central Kalimantan</td>
<td>51.32</td>
<td>40.86</td>
<td>58.44</td>
</tr>
<tr>
<td>South Kalimantan</td>
<td>56.44</td>
<td>20.92</td>
<td>78.17</td>
</tr>
<tr>
<td>East Kalimantan</td>
<td>56.37</td>
<td>23.17</td>
<td>74.31</td>
</tr>
<tr>
<td>North Kalimantan</td>
<td>42.63</td>
<td>71.14</td>
<td>28.19</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>52.41</td>
<td>37.80</td>
<td>61.50</td>
</tr>
</tbody>
</table>


Based on the table above (table 2), it showed that the Village Development Index in West Kalimantan (49.85) is in the second lowest part after North Kalimantan (42.63). With the percentage of underdeveloped village in West Kalimantan such as 50.58 percent, developing village 48.22 percent and developed village only 1.20 percent from the total 1,908 villages. The average of Village Development Index in Kalimantan such as 52.41. In average, Kalimantan Island is underdeveloped in infrastructure condition. It is one of the important thing that should be concern in sustainable development. The economic structure of Kalimantan which is dominated by mining commodities and agricultural commodities needs to improve the infrastructure condition to stimulate development in non-raw materials sectors.

Senujuh village categorized as underdeveloped village in West Kalimantan Province based on the Village Development Index 2014 by Ministry of National Development Planning. Senujuh village is located in Sejangkung Sub-district, Sambas Regency, West Kalimantan Province, Indonesia. The distance of Senujuh village from Capital city of Sambas Regency is around 34.7 kilometers. The total population of Senujuh village is 1,335 people, consist of 661 male and 671 female. There are 352 households in Senujuh Village. In Senujuh village only have one Elementary School, it does not have Junior High School and Senior High School. The distance to the nearest hospital is more than 23 kilometers and in the village also does not have Primary Health Center. Most of the villagers cooking by the fire woods. Drinking water source is from the rain fed. The 85% of Senujuh villagers are farmer and 15% are labor. Their income per capita among 15 – 70 US$ per month. Otherwise, national income per capita in Indonesia is 3,650 US$ per year, which is around 340 US$ per month. It is indicate that the villagers in Senujuh village live under the poverty line (Huruswati, 2012).

This research topic is important for development of Indonesia rural area in the future. Poverty in the rural area must be eliminated because the society in rural area also have same right with the society in the big city of Indonesia. The income distribution must be equal so poverty can be reduce. This research leads to poverty
which is located in the rural area of West Kalimantan, Indonesia. Hopefully with this research could help the government to further increase its attention in establishing self-sufficient villages in rural area in Indonesia. With the development in the rural areas, are expected to be in the rural communities can get out of the vicious circle of poverty.

2 Definition of Poverty & Types of Poverty

Poverty can be described in many ways based on the viewpoint of researchers or analyst. Every viewpoint of researchers will determine the understanding of poverty definition, how it was happened, factors of poverty and how to do poverty alleviation appropriately. In general, poverty defined as a condition of individual that lack or cannot fulfill their basic needs. Poverty according Indonesia Statistical Center is an individual condition which has income per capita in month is not enough to fulfill a minimum basic needs. Minimum basic need is limit of expense per capita per month to fulfill food and non-food.

According to Todaro (2012), poverty can divided into two categories based on the characteristics, such as absolute poverty and relative poverty. While Sachs (2005) divided poverty into 3 classifications, such as extreme (absolute), moderate and relative. Poverty also divided based on the places, such as Rural Poverty and Urban Poverty. The characteristics of poverty in Rural area and Urban area will be have some differences. Perhaps the most valid generalizations about the poor are that they are disproportionately located in rural areas, that they are primarily engaged in agricultural and associated activities, that they are more likely to be women and children than adult males, and that they are often concentrated among minority ethnic groups and indigenous peoples. Data from a broad cross section of developing nations support these generalizations. We find, for example, that about two-thirds of the very poor scratch out their livelihood from subsistence agriculture either as small farmers or as low-paid farmworkers. Some of the remaining one-third are also located in rural areas but engaged in petty services, and others are located on the fringes and in marginal areas of urban centers, where they engage in various forms of self-employment such as street hawking, trading, petty services, and small-scale commerce.

3 Poverty Measurement

Poverty measurement in every countries is different. It based on the standard of living and the poverty line in each country. But in general, according to Aline Coudouel (2002), there are three requirement in measure the poverty level such as:

1. Choose the relevant dimension and indicator of well-being.
2. Select a poverty line in order to classify household as poor or not.
3. Select a poverty measure that will be used for reporting whether poverty in population as a whole or population subgroup only.

Indonesia Statistic Center measured the poverty based on the basic needs approach. With this approach, poverty is seen as an economic inability to meet the basic needs of food and non-food which is measured from the expenditure side. So the Poor is the population that had an average monthly per capita expenditure below the poverty line. Food poverty line is the value of basic food consumption expenditure is equivalent to 2.100 kcal energy per capita per day. Non-food poverty line is the amount of money to meet the minimum needs of non-food items such as education, health, transportation, etc.

Income is a key concept in almost all definitions and studies of poverty; however, ‘income’ is an extremely difficult concept to define and measure. The term is sometimes used loosely to refer only to the main component of monetary income for most households—that is, wages and salaries or business income. Others use the term more widely to include all receipts including lump-sum receipts and receipts that draw on the household’s capital. Much of the debate has centered on whether:

- income should include only receipts that are recurrent (that is, exclude large and unexpected, typically one-off, receipts);
- income should only include those components that contribute to current economic well-being, or extend also to those that contribute to future well-being;
- If the measure of income should allow for the maintenance of the value of net worth (Canberra Group (2001) in (Pantazis, Gordon, & Levitas, 2006)).

4 Methodology

The study area of this research is located in Senujuh Village. Senujuh village is one of the 12 village in Sejangkung Subdistrict. Sejangkung subdistrict is located in Sambas Regency, West Kalimantan Province, Indonesia. In Senujuh village has 4 RT (Rukun Tetangga) which consist of 352 households.

Purposive Sampling is used for choosing the study area and Stratified Random Sampling is used in determining sample size from the village. In this research, researchers apply the standard of error in collecting sample such amount 10%. Based on the data above, so the number of sample size that will be used in this research can be known by this following calculation:

\[ n = \frac{N}{1 + N(e)^2} \]

\[ n = \frac{352}{1 + 352 (0.1)^2} \]

\[ n = 77.8 \]
With: 
\[ n = \text{sample size} \]
\[ N = \text{Number of Population} \]
\[ e = \text{Standard of error (10\%)} \]

Based on the calculation of sample size by Slovin Formula above, so researcher use 80 Household to be used as respondents.

Dependent variable is poverty level that identified by the income level, ratio scale as the measurement. Independent variables are consist of six variables with ratio and nominal scale. The independent variables are education level, family size, working days, age of head of household and loan. The primary data of research variables will be carried out by questionnaire and interviews. The data will analyzed with descriptive statistics and multiple linear regression.

Economic model defines the statistical relationship between variables in particular phenomena. This research uses multiple linear regression model below:

\[
Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e
\]

Where:
\[ Y = \text{poverty (amount of income in household)} \]
\[ X_1 = \text{Education Level} \]
\[ \beta_0 = \text{constant} \]
\[ \beta_1 = \text{education regression coefficient} \]
\[ X_2 = \text{Family Size} \]
\[ \beta_2 = \text{family size regression coefficient} \]
\[ X_3 = \text{Working Days} \]
\[ \beta_3 = \text{working hours regression coefficient} \]
\[ X_4 = \text{Age} \]
\[ \beta_4 = \text{assets regression coefficient} \]
\[ X_5 = \text{Monthly Loan} \]
\[ \beta_5 = \text{debt regression coefficient} \]
\[ e = \text{error term} \]

5 Result and Discussion

Descriptive Statistics

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. In Senujuh village, there are 352 households, among 105 households were listed as poor in national census 2012. Most of the head of households work as farmer, labor in palm tree factory or rubber factory and fisherman.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Income (USD)</td>
<td>8.25</td>
<td>100</td>
<td>45.86</td>
</tr>
<tr>
<td>Education (Year)</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Family Member</td>
<td>2</td>
<td>7</td>
<td>4.6</td>
</tr>
<tr>
<td>Working Days (Monthly)</td>
<td>0</td>
<td>24</td>
<td>14.5</td>
</tr>
<tr>
<td>Age of Household Head</td>
<td>26</td>
<td>71</td>
<td>46</td>
</tr>
<tr>
<td>Monthly Loan (USD)</td>
<td>0</td>
<td>35</td>
<td>7.25</td>
</tr>
</tbody>
</table>

Source (Data Processing, SPSS)
Based on the table above, it shows that the minimum income per month is 8.25 USD, the maximum income per month is 100 USD and the average income per month in Senujuh village is 45.86 USD. The youngest head of household in this village is 26 years old and the oldest is 71 years old. The minimum family member in Senujuh village is 2 people, the highest number of family member is 7 people and the average number of family members is around 4 people. The minimum working days per month is 0 day, the highest working days per month is 24 days and the average working days per month of head of Household in Senujuh village is 14 days. The maximum loans that owned by head of household is 35 USD and the average is 7.3 USD per month.

Table 4. Education Level in Senujuh Village

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Pass Elementary School</td>
<td>36</td>
<td>45</td>
</tr>
<tr>
<td>Elementary School</td>
<td>35</td>
<td>43.7</td>
</tr>
<tr>
<td>Junior High School</td>
<td>7</td>
<td>8.8</td>
</tr>
<tr>
<td>Senior High School</td>
<td>2</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source (Data Processing, SPSS)

The minimum year of education of head of household in this village is zero. It means, they are not pursued the basic education. The statistics (see table 4) show that 45% head of household in Senujuh village only not have basic education (elementary school). Head of household which have elementary school education is 43.7%, Junior High School is 8.8% and Senior High School only 2.5%. It conclude that the education level of head of household in Senujuh village is very low.

**Autocorrelation Test**

Autocorrelation is used to know the existence of correlation between error term in t period and error term in previous period (t-1) in multiple linear regression model. In this research used Durbin-Watson test (DW Test) to test the autocorrelation in this model. The result of Durbin-Watson test can be seen in the table 5 below:

Table 5. Durbin-Watson

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.914</td>
<td>0.835</td>
<td>1.853</td>
</tr>
</tbody>
</table>

Autocorrelation can be tested by running Durbin-Watson test. Based on the table above, it shows Durbin-Watson value such as 1.853. Then, compare to the Durbin-Watson table, dL is 1.533 and dU is 1.743. The criteria to test autocorrelation by Durbin-Watson such as:
Positive Autocorrelation:
If \( d \) value \( > \) \( d_U \) is mean there are no positive autocorrelation.
\( D \) value 1.853 \( > \) \( d_U \) 1.743 so it means there are positive autocorrelation.

Negative Autocorrelation:
If \( (4-d) \) \( > \) \( d_U \) is mean there are no negative autocorrelation.
\( (4-d) \) value 2.147 \( > \) \( d_U \) 1.743 so it means there are no negative autocorrelation.

So, based on the criteria above, it conclude that there are no positive and negative autocorrelation in this multiple linear regression model.

Heteroscedasticity Test
One of the important test in multiple linear regression is heteroscedasticity test. Heteroscedasticity refers to the circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it. The diagram shows that the dots are spread randomly, they do not form a specific and clear pattern. The dots are spreading both above and below the zero on the y-axis, thus it is concluded that there is no heteroscedasticity in this model.

Multicollinearity Test
Multicollinearity is a high degree of correlation (linear dependency) among several independent variables. It commonly occurs when a large number of independent variables are incorporated in a regression model. It is because some of them may measure the same concepts or phenomena. Only existence of multicollinearity is not a violation of the OLS assumption. However, a perfect multicollinearity violates the assumption that X matrix is full ranked, making OLS impossible. When a model is not full ranked, that is, the inverse of X cannot be defined, there can be an infinite number of least squares solutions (Jeeshim, 2016).

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Education (Year)</td>
<td>0.674</td>
</tr>
<tr>
<td>Family Member</td>
<td>0.767</td>
</tr>
<tr>
<td>Working Days (Monthly)</td>
<td>0.482</td>
</tr>
<tr>
<td>Age</td>
<td>0.501</td>
</tr>
<tr>
<td>Monthly Loan (USD)</td>
<td>0.557</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Monthly Income (USD)

According to (Nachrowi & Usman, 2006), Multicollinearity can be indicated by points out the VIF value. If VIF value is greater than 10, it indicates a collinearity
problem. For this model, the table above (table 6) shows that the VIF values are well below 10. Therefore, it is conclude that there is no collinearity within the data in this model.

Normality Test

The aims of normality test is to see whether the dependent and independent variables in the multiple linear regression model have normal distribution or not. Normality can be seen on the data distribution when the curve does not pass through either left or right. As depicted in figure besides, it shows that the data output in this model is normally distributed.

Multiple Linear Regression R Square

Table 7. R Square

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.914</td>
<td>0.835</td>
<td>0.824</td>
<td>8.97630</td>
<td>1.853</td>
</tr>
</tbody>
</table>

The table above (table 7) shows that the value of $R^2$ is 0.835. It means 83.5% dependent variable can be explained by the independent variables, while 16.5% explained by other variables outside this model.

F-Test

Simultaneously test or F test is used to see whether the independent variables influence dependent variables simultaneously or not. To examine the F test, we need to compare the result of F value to the F table.

Table 8. F-Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>30,185.11</td>
<td>5</td>
<td>60,307.02</td>
<td>74.92</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>5,962.46</td>
<td>74</td>
<td>80.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36,147.57</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Monthly Income (USD)
b. Predictors: (Constant), Education, Family Member, Age, Monthly Loan (USD), Working Days (Monthly)

Based on the table above (table 8), the value of F is bigger than value of F table (74.925 > 2.53) with significant level below 0.05 such as 0.000. So, it can concludes that variables X1, X2, X3, X4 and X5 are simultaneously significant on Y variable.
T-Test

Partial test or T test is to examine the effects of each independent variables on the dependent variable as partially. T test can be run by compare the T stat and the T table by looking at significant column for each T stat. In this regression model of poverty, the significant level that we used is $\alpha = 5\%$ or 0.05.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>49.968</td>
<td>8.700</td>
<td>.5743</td>
<td>.000</td>
</tr>
<tr>
<td>Edu_X1</td>
<td>5.418</td>
<td>2.976</td>
<td>.105</td>
<td>1.820</td>
</tr>
<tr>
<td>Family Member_X2</td>
<td>-1.270</td>
<td>.833</td>
<td>-.082</td>
<td>-1.524</td>
</tr>
<tr>
<td>Working Days_X3</td>
<td>.933</td>
<td>.302</td>
<td>.210</td>
<td>3.090</td>
</tr>
<tr>
<td>Age_X4</td>
<td>-.585</td>
<td>.117</td>
<td>-.334</td>
<td>-5.015</td>
</tr>
<tr>
<td>Monthly Loan_X5</td>
<td>1.261</td>
<td>.155</td>
<td>.515</td>
<td>8.132</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Monthly Income (USD)

Based on the table above (table 9), the multiple linear regression equation is arranged as follows:

$$Y = 49.968 + 0.933X_3 - 0.585X_4 + 1.261X_5 + \mu$$

The multiple linear regression model means:

- The constant value of 49.968 means if the value of other variables are zero, then the dependent variable of the average income of poor people will increase 49.96 USD per month.
- The X3 variable (Working Days) positively affects the average income of poor people with an influence coefficient of 0.933, it means that each increase of 1 working day (X3) in a month will increase the average income of poor people by 0.933 USD per month.
- The X4 variable (Age) negatively affects the average income of poor people with an influence coefficient of -0.585, it means that each increase of 1 year of age (X4) of poor people will decrease the average income of poor people by 0.585 USD per month.
- The X5 variable (Loan) positively affects the average income of poor people with an influence coefficient of 1.261, it means that each increase of 1 USD of Loan (X5) will increase the average income of poor people by 1.261 USD per month.

Two independent variables are out of from the model of regression:

- The X1 variable (Education) positively affects the average income of poor people with an influence coefficient of 5.418, it means that each increase of 1 year of education level (X1) of poor people will increase the average
income of poor people by 5.418 USD per month. But in this model, variable X1 (Education) is not significant.

- The X2 variable (Family Member) negatively affects the average income of poor people with an influence coefficient of -1.207, it means that each increase of 1 family member (X2) will decrease the average income of poor people by 1.207 USD per month. But in this model, variable X2 (family members) is not significant.

Those two variables are not significant because in this village, we found that the head of household mostly have no education background. Most of poor people have same level of education which is not educated and primary level. Also for the family member, most of the household have 4 – 5 family members, only few household that have more than 5 family members. It cause the data of education level and family member cannot explain the influence on average income of household significantly.

6 Discussion

From the result of Multiple Linear Regression it shows that three independent variables have significant influence on dependent variable. While, two independent variables do not have significant influence on household poverty in Senujuh Village. Working days have positive affect on average income of poor people in this village. It is occurred because most of the poor people in Senujuh village work as labor in Palm Tree Factory and Rubber Factory. Their income are derived from the number of working days. Therefore, increasing the number of working days will affect their income positively. However, the factory have regulation for the number of working days which is maximum 15 days of working per month. Then, they must do another job in the village such as farming, fishing or handyman to fulfill their needs. Labor in the palm tree factory can earn 5.7 USD per day but labor in rubber factory is less than that because of the price of rubber drop since few years ago.

Age of household head have negative impact to the income of household. Most of the head of household who are more than 50 years old were not work anymore. They only work for few days in their small farm. Farming is a jobs that required strong physical and high effort, it can be done by people in productive age. Moreover, when people is over the productive age will be have less income because they physical condition is getting drop. It becomes problem for the household that lead by elder people. They were not have good income from their activity, some of them cannot work anymore and only depend on subsidy from government and family. It occurred because most of the head of household were not have high education level. So, when they were getting old they cannot do anything. We can see the differences when the people gained high education,
when they are getting old they still can be productive, for example lecture, consultant, politician and etc.

Loan have positive impact to household income. In every adding of loan it will increase household income. They will take loan to support their farm, small store or other type of small investments. The people in this village will take loan based on their ability to pay back. Based on the data, most of the villagers take loans from the debt collector, family and leasing. There is no cooperative in Senujuh village or nearby the village.

### 7 Conclusion

In this paper we first estimate the factors that influence household poverty in rural area of West Kalimantan using a sample of 80 household in Senujuh Village. We then apply descriptive statistics and multiple linear regression to estimate the impact of education level, family members, working days, age and loans on the average income of household living below the national poverty line.

Poverty in Senujuh village is high. 30% of population are living under the poverty line. Working days and Loans affect positive significantly on household poverty. However, age affect negative significantly on household poverty in Senujuh village. Small incentives that earn by the people make the working days affect their average income. People need to increase the number of working days to increase their average income. People will use loans as their capital to help them increasing their average income. Theoretically, education and family members will significantly affect the household poverty. Meanwhile, in this research both of those factors are not significantly affect household poverty in Senujuh Village. It caused by the education level of head of poor household are mostly same which is uneducated. The number of family members in this village also mostly similar around 4 until 5 members in one household. So, because of the similar data, it cannot explain the influence of both variables significantly.

Education Level, even though education was out of the regression model but based on the descriptive statistics it shows that most of the household head in Senujuh Village were not well educated. Government assists the poor household in this village is only give subsidy on rice every month. They did not have any development program to reduce the poverty in this village. Lack of job vacancy for the people outside farming and plantation. Lack of infrastructures in the village. The access to Senujuh village is only small cement road around 120cm width as 17 kilometers. Only can use motorbike and boat from the river. There is no financial institution near the village.

However, this study has put fourth several suggestions for development in Senujuh village: (i) Government should make development program to reduce the poverty in this village, especially related to the agriculture and fishery. (ii) Infrastructures Development such as big road, primary health care, high school
and etc. (iii) Make cooperative in this village or nearby to make people easily access the financial institution to gain more capital for their agricultural activities. For the further researches, research area may be longer and have a wider sample, can include macroeconomics factors that may contribute to reduction of poverty rate.

References

http://www.bps.go.id/linkTableDinamis/view/id/1120


http://hdr.undp.org/en/content/multidimensional-poverty-index-mpi