International Journal of Economics, Management and Accounting 31, no. 2 (2023): 397-416

PROBABILITY OF GETTING HOUSEHOLDS OUT OF POVERTY: EMPIRICAL STUDIES IN INDONESIA

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ABSTRACT

This study aims at analyzing the impact of household characteristics on increasing the chances of households getting out of poverty. Independent variables in this study consist of nine household characteristics (both parents' education, employment status, and job sector; the family size, location of residence, and social assistance received). The analytical method used is logit regression. The results showed that four out of the nine variables have a significantly positive impact on increasing the chances of getting households out of poverty: residence location, fathers working in non-agriculture sector, mothers working in non-agriculture sector, and mothers working in general. Family size has a significantly negative impact. Thus, the government should promote SME (Small Medium Enterprises) development in rural areas that support agriculture production since it will increase the chances of households escaping poverty.

JEL Classification: I32, E24, J43

Keywords: Poverty, Working in non-agriculture sectors, Rural areas, Education, Social assistance

Submitted: 18/12/2021 Accepted: 06/08/2022 Published: 28/12/2023

1. INTRODUCTION

Poverty is still a significant development problem; the poverty level is an essential indicator of development achievement. Various countries strive for development to reduce poverty. Yet it is difficult for the poor to escape the poverty trap.

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The Poverty trap is a set of self-reinforcing mechanisms by which countries that started poorly remain poor. Poverty breeds poverty (Kraay and McKenzie, 2014). So current poverty itself is a direct cause of future poverty. For example, in Mexico, Loría (2020) showed that economic growth had not reduced poverty since 2007; however, the poverty rate also did not increase. Poverty remains there. This condition represents the poverty trap. Experts in various fields have tried to provide solutions for poverty alleviation. Even so, poverty alleviation remains one of the development goals in multiple countries and is even included in the 14 Sustainable Development Goals (SDGs). Poverty is a global problem, and no country is free from it, including Indonesia. BPS (Central Statistics Agency in Indonesia) reports that in September 2019, the number of poor people in Indonesia was 24.79 million, or 9.22%, spread across various provinces. Three of the ten provinces with the highest poverty rates are in Sumatra: South Sumatra, Bengkulu, and Aceh. Moreover, the poverty rate of Aceh and Bengkulu provinces is above 15%.

The Ministry of National Development Planning (BAPPENAS) in Indonesia stated that high poverty areas are characterized by: 1) experiencing a poverty rate of more than 15% for three consecutive years; 2) experiencing a slowdown in poverty reduction rate; 3) having multidimensional poverty problems (Kementerian PPN/BAPPENAS, 2018). Bengkulu Province has experienced a poverty rate exceeding 15% for eight consecutive years, with a slow poverty reduction rate. Therefore, Bengkulu province is an area with high poverty.

Eradicating high poverty in Bengkulu Province requires hard work. Poverty can be examined with a macro and micro approach. With the macro approach, poverty is seen holistically and broadly. With the micro approach, detailed research is carried out to determine the conditions of poverty more precisely: who are poor? What are the characteristics of poor households? Micro study at the household level will identify details of the household characteristics, both poor and non-poor, directly for more representative results. Therefore, this research was conducted at the household level.

Poverty is closely related to household characteristics or background. One characteristic affecting poverty is education; as Zhang (2014) revealed, low education contributed to the poverty trap in Western China. Family size is also a poverty determinant; in Mexico, Fernandez-Ramos et al. (2015) found that chronic poverty occurs in households with large family size.

Head of household employment status is also a determinant of poverty. In Portugal, employment of the head of household increases the chances that the household will not become poor (Crespo, Moreira and Simões, 2013). This study includes households with working women; Filandri and Struffolino (2019), in their research on 31 countries, found that women who work in the family (not as the head of household) reduce the chance of poverty.

Apart from employment status, business field contribution is also closely related to poverty. In West Java, Satrio (2018) revealed that households working in the agricultural sector increase their chances of becoming poor. Related to the job sector, the location of residence (urban or rural) also determines probability of poverty. Iqbal, Siddiqui and Zafar (2020) explained that living in rural areas can increase the chance of poverty in Pakistan. Also important is government role in poverty alleviation, one of which is through social spending. Yusuf (2018), who researched social spending (especially cash assistance to communities), noted that social spending could reduce poverty in Indonesia. These studies explained the role of household characteristics in reducing poverty levels. Identifying these household characteristics positive or negative impact on poverty reduction, however, is considered insufficient to produce solutions for poverty alleviation. It is necessary to find analytical methods that provide more specific results in poverty alleviation efforts.

This study tries to analyze poverty more deeply by identifying the probability of households getting out of poverty if specific household characteristics exist. Thus, this study aims at analyzing the specific impact of certain variables on increasing the probability of households escaping poverty. The household characteristics used are father and mother's education, father and mother's employment status, father and mother's job sector, family size, location of residence, and social assistance.

2. LITERATURE REVIEW

Some authors describe the concept of poverty in various dimensions. Amartya Sen (Haughton and Khandker, 2009) explains that welfare is obtained from societal functions. So, people become poor when they cannot fulfill such functions. Thus, they have low income and education, poor health, insecurity, no power to do things, and no right to speak.

One indicator used for measuring poverty is the monetary measure, which describes a person's ability to fulfill his or her life needs in money, referred to as absolute poverty. Akwara et al. (2013) defined absolute poverty as the inability of a person or group to provide life necessities and protect human dignity. A minimum level of family income (in the form of money) is used to classify these abilities, known as the poverty line (Hall and Lieberman, 2005). Thus, a person with an income below the specified poverty line will be classified as poor.

The phenomenon of the poor finding it arduous to get out of poverty is described as the vicious cycle of poverty (Nurkse, 1971). Nurkse explained that this vicious cycle is based on demand and supply. The supply-side suggests that the ability to save is low due to low income. Low income reflects low productivity caused by using less capital. This situation results in a low ability to save. This condition continues to repeat, so the community remains poor.

Meanwhile, from the demand side, the low investment is explained by the low purchasing power of individuals. Low purchasing power is due to low income resulting from low productivity. This low productivity exists because a small amount of capital is used in production due to a small investment. Thus, lacking in capital to improve productivity, the poor remain poor. The causes of poverty are interrelated, making it difficult for the poor to overcome poverty.

2.1 ROLE OF EDUCATION

Empirical research shows that education has negative correlation with poverty; in other words, higher education can reduce poverty. Previous research shows that education increases the chances of escaping poverty in several areas, such as in Pakistan (Iqbal et al., 2020), in China (Gustafsson and Sai, 2020), and Vietnam (Nguyen, Linh and Nguyen, 2013).

The following research also reveals a smaller chance of being poor for educated people. These researches were conducted in West Java, Indonesia (Satrio, 2018), in South Sudan (Shimeles and Verdier-Chouchane, 2016), in Mexico (Fernández -Ramos et al., 2016), in Benin (Alia, Alia and Fiamohe, 2016), and Nigeria (Ukwueze and Nwosu, 2014). In Europe, studies conducted in Turkey (Bilenkisi, Gungor and Tapsin, 2015) and Portugal (Crespo et al., 2013) also demonstrated the impact of education on reducing poverty likelihood.

2.2 ROLE OF WORKING WOMEN

The role of women in the household is related to the local community's social, economic, political, religious, and cultural conditions. Some people claim that breadwinners should be male, so women should be at home to care for the family and household. Some others think otherwise. Previous studies have revealed that most working women are from low-income families working teto earn additional family income. Batana (2013) revealed that the most significant percentage of working women came from low-income families.

Despite working outside the home, women work more in the informal sector, with low productivity and pay (Sadaquat and Sheikh, 2011). It results in the inability of women to get their families out of poverty. The success of women working in bringing their families out of poverty occurs in European countries (Filandri and Struffolino, 2019) and Turkey (Bilenkisi et al., 2015).

2.3 ROLE OF EMPLOYMENT

In a household, family members rely on the head of the household to meet the necessities of life. Thus, the head of the household actively working (employed) will reduce the chance of household poverty. This condition occurs in Nigeria (Aiyedogbon and Ohwofasa, 2012; Akwara et al., 2013) and Pakistan (Meo et al., 2018).

The research results in Benin also revealed the same situation (Alia et al., 2016). Likewise, other studies revealed that unemployment causes higher poverty in Indonesia (Muthalib et al., 2018), Turkey (Bilenkisi et al., 2015), and Portugal (Crespo et al., 2013).

2.4 ROLE OF EMPLOYMENT SECTOR (AGRICULTURAL SECTOR)

The agricultural sector still dominates the economy of developing countries. The agricultural sector grows in rural areas in developing countries while the industrial and service sectors develop in urban areas. In developing countries, the agricultural sector has a lot of disguised unemployment; there are many unpaid workers. They work on their family land, so they work without pay. Sadaquat and Sheikh (2011) revealed that most women work in the agriculture sector in South Asian countries. Even in Pakistan, agricultural workers

account for 65% of the total workforce, where some of them work as unpaid family workers in the agricultural sector.

Previous research revealed that households working in the agricultural sector increase their chances of becoming poor, as shown in West Java (Satrio, 2018), Vietnam (Nguyen et al., 2013), and Nigeria (Aiyedogbon and Ohwofasa, 2012). Other studies also reveal a similar condition: households working in the non-agricultural sector are more likely to be non-poor. This was found in Nigeria (Adeoye et al., 2019) and Benin (Alia et al., 2016).

2.5 ROLE OF FAMILY SIZE

Family size is the number of family members consisting of a father, mother, children, and others living in one household. Empirical evidence shows that the larger the family size, the greater the probability of being poor. It is the case in China (Gustafsson and Sai, 2020), Mexico (Fernández-Ramos et al., 2016), and Fiji (Gounder, 2013).

Furthermore, the larger the family size, the higher the chance of being poor due to the increasing number of dependent (young and old) family members. Both are not working and not earning. These results were found in China (Gustafsson and Sai, 2020; Glauben et al., 2012), Benin (Alia et al., 2016), Fiji (Gounder, 2013), and Nigeria (Akerele et al., 2012).

2.6 ROLE OF RESIDENTIAL LOCATION (RURAL)

Rural and urban locations are related to the job sector. In rural areas, the agricultural sector dominates. Meanwhile, many industrial and service areas have sprung up in urban areas. Previous research revealed agricultural sector workers have a higher risk of poverty in several countries such as Pakistan (Iqbal et al., 2020), Benin (Alia et al., 2016), Vietnam (Nguyen et al., 2013), and Fiji (Gounder, 2013).

Another study also found that people living in cities lower their risk of becoming poor in Turkey (Bilenkisi et al., 2015). The opposite happened in China, however, where Gustafsson and Sai (2020) found that living in cities can increase the risk of poverty.

2.7 ROLE OF GOVERNMENT EXPENDITURE (SOCIAL ASSISTANCE)

Some studies inspect spending by specific functions concerning poverty, such as social spending. Fording and Berry (2007), who examined the effect of social assistance (in the form of cash transfers to the community) on poverty in the USA, revealed a non-linear relationship between social spending and poverty. They found that social assistance can reduce poverty and create a work disincentive that causes people to be lazy to work and makes them poorer.

Meanwhile, Yusuf (2018), who researched social spending (cash assistance to the community), explained that social spending could reduce poverty in Indonesia. Another study in South Africa (Gomo, 2019) proved that government transfers to the community reduced poverty.

As such, the following are the hypotheses of this study:

a. Fathers' high education (high school or higher) increases the chances of the household escaping poverty.
b. Mothers' high education (high school or higher) increases the chances of the household escaping poverty.
c. Fathers' working increases the chances of the household escaping poverty.
d. Mothers' working increases the chances of the household escaping poverty.
e. Fathers working in the non-agricultural sector increase the household's chances of escaping poverty.
f. Mothers working in the non-agricultural sector increase the household's chances of escaping poverty.
g. Small family size increases the chances of the household escaping poverty.
h. Living in urban areas increases the chances of the household escaping poverty.
i. Social assistance increases the chances of the household escaping poverty.

3. METHODOLOGY

The data used encompass secondary data in microdata from the National Socio-Economic Survey (SUSENAS), collected in Bengkulu Province, Indonesia, in March 2019 and conducted by the Central Statistics Agency (BPS) Bengkulu province, totalling 5,303 households. The determination of poor/not poor is the poverty line of

each district/city in Bengkulu province. The poverty line in each district/city in Bengkulu province is depicted in Table 1. Any household earning less than the poverty line would be categorized as poor.

TABLE 1
Poverty Lines in Districts/Cities in Bengkulu, 2019 (in thousand IDR)

District/city	Poverty Line
South Bengkulu	377
Rejang Lebong	449
North Bengkulu	369
Kaur	322
Seluma	386
Muko-muko	426
Lebong	404
Kepahiang	374
Central Bengkulu	406
Bengkulu city	660

Table 2 shows categories of dependent and independent variables applied in the study. The independent variables in this study consist of nine household characteristics. Poor status (the variable in parentheses) is the dependent variable. The remaining variables are independent.

TABLE 2
Categories of Dependent and Independent Variables

Variable	D = 1	D = 0
(Poor status)	Not poor	Poor
Father's education	High school/college	Below high school
Mother's education	High school/college	Below high school
Father's employment status	Working	Not working
Mothers' employment status	Working	Not working
Fathers' employment sector	Non-agriculture	Agriculture
Mothers' employment sector	Non-agriculture	Agriculture
Family size	≤ 4 persons	> 4 persons
Location of residence	Rural	Urban
Social assistance	Did not receive assistance	Received assistance

The analytical method used is logit regression. The dependent variable is the poor status (written in parentheses), which can be poor or not poor. The general logistic regression model with k-factor (independent variable) is as follows (Hosmer and Lemeshow, 1989):

(1) $$\pi(x) = \frac{exp\ (\beta_0+\beta_1 x_1+ \ldots +\beta_p x_p)}{1+exp\ (\beta_0+\beta_1 x_1+ \ldots +\beta_p x_p)}$$

In which (x) is the probability of success with the probability value of $0 \leq \pi(x) \leq 1$ and j is the parameter value with j = 1,2,.....,p. Probability or (x) is a non-linear function. For this reason, it is necessary to transform it into a logit form to obtain a linear function. The logit model is:

(2) $$g(x) = ln \frac{\pi(x)}{[1-\pi(x)]} = \left(\beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p\right)$$

Two tests are carried out in the logit regression model: the overall and partial tests. The overall model was carried out with the chi-square test (χ^2), classification result, omnibus test, Hosmer and Lemeshow test, and Pseudo *R* Square. Then a partial test was carried out with the Wald test (Baltagi, 2005; Wooldridge, 2001). Wald test is done by looking at the z statistic based on the significance level.
Furthermore, there are two ways of reading the coefficient: analyzing the odds ratio and turning the odds ratio into a percentage (Fernandes et al., 2020). The interpretation of the model is carried out by exponentiating the regression coefficient, namely exp(β), which is referred to as the odds ratio, which describes how big the chances of a household moving out of poverty, to become poor or become not poor (the chance of getting out of poverty). The formula for calculating the odds ratio (probability ratio):

(3) $$Li = ln\ \left[\frac{Pi}{1-Pi}\right]$$

A positive value (+) odds ratio in logistic regression produces a coefficient larger than 1. Conversely, a negative coefficient (-) returns an odds ratio smaller than 1. A coefficient with a value of zero produces an odds ratio equal to 1, indicating that the independent variable does not affect the chances of a household moving out of poverty to become poor or become not poor. The farther the coefficient is from one, the greater the impact of a given independent variable on the chance of getting out of poverty. Then, one can estimate the percentage increase in the chance of getting out

of poverty. To do so, one must subtract one unit from the exponentiated regression coefficient and multiply the result by 100, in this case ((exp(β) -1 *100). Then we have that the increase in one unit of X is associated with an increase of a certain percentage in the chance of getting out of poverty (*ceteris paribus*).

4. RESULTS AND DISCUSSION

The number of households analyzed was 5,303, consisting of 239 poor households (4.5%) and 5,064 non-poor households (95.5%). Table 3 describes the household characteristics.

TABLE 3
Household Characteristics

VARIABLE	PERCENTAGE (D = 1)	PERCENTAGE (D = 0)
(Poor status)	95.5% (Not poor)	4.5% (Poor)
Father's education	25.7% (High school/college	74.3% (Below high school)
Mother's education	22.9% (High school/college)	77.1% (Below high school)
Father's employment status	92.2% (working)	7.8% (Not working)
Mother's employment status	58.2% (working)	41.8% (Not working)
Father's employment sector	43.64% (non-agriculture)	56.36% (Agriculture)
Mother's employment sector	47.62% (non-agriculture)	52.38% (Agriculture)
Family size	99.1% (≤ 4 persons)	0.9% (> 4 persons)
Location of residence	70.3% (Rural)	29.7% (Urban)
Social assistance	78% (Did not get social assistance)	22% (Received social assistance)

Source: Research results

The first characteristic is father's education, and the second is mother's education. Table 3 shows that the education of fathers and mothers is still low. Interestingly, more mothers have postgraduate education than fathers. Meanwhile, the number of

fathers who did not graduate from primary school is greater than that of mothers. For both parents, the low level of education is related to rural areas still dominating Bengkulu Province. Rural areas lack job opportunities and do not require higher education. Thus, most people in this province do not feel compelled to enter university. Many people with low education indicate low productivity, which causes them to earn low income and be classified as poor.

Third and fourth characteristics are the work status of the father and mother in the household. Employment status is closely related to family income. It is the cultural norm that, as the head of the family, the father is responsible for providing for the family. Table 3 shows that in most households, fathers have jobs. In contrast, mothers are considered not obliged to work to help earn a living in the household.

The fifth and sixth characteristics are the employment sector where fathers and mother's work. This study's employment sectors include agricultural and non-agricultural sectors (industry and services). Table 3 describes that employment in the agricultural sector still dominates in Bengkulu Province.

Next characteristic is family size. Table 3 informs that 99.1% of households have 2-4 family members. This information is reasonable considering that the government always carries out family planning programs that encourage families to have only two children; so most families in Bengkulu Province are small.

Table 3 shows the following characteristic - location of residence - with 70.3% of households living in rural areas. It is reasonable considering that most areas in Bengkulu Province are still rural; only a few areas in Bengkulu Province are urban.

The last characteristic is social assistance. Table 3 shows that the percentage of households receiving social assistance is almost the same between poor and non-poor households. It indicates that social assistance recipients are from both categories.

Relationship between the poor status and nine independent variables determining poverty is shown in Table 4. The results indicate that of the nine independent variables, six relate significantly to the poor status of respondents.

The next step is to analyze the impact of these household characteristics on the probability of being poor using the logit regression method.

In the logit regression, the first test is the overall testing model, which compares the value of -2log likelihood with 2. In this

study, the value of -2log likelihood is 1,069,156. Table 5 shows the results of processing and testing the logit regression model.

The classification results were then tested, where the number of households was 5,303, with the poor numbering 239, and the non-poor 5064. The classification results according to each group were 95.5%. Therefore, the logit regression model is considered valid, and further testing can be carried out, namely the omnibus test. The value of 2 is 90,698, which is significant at = 5%. H0 is rejected, so all independent variables significantly influence the model.

TABLE 4
Pearson Chi-Square Test

Variables	Value	df	Asymp. Sig. (2-sided)
Father's education	0.256	1	0.613
Mothers' education	0.010	1	0.919
Father working	1.207	2	0.547
Mother working	5.388	1	0.020
Small family size	338.7	1	0.000
Rural location of residence	117.0	1	0.000
Received social assistance	5.774	1	0.016
Father working in the non-agriculture sector	55.738	3	0.000
Mother working in non-agriculture sector	38.984	1	0.000

Source: Research results

Then the Hosmer and Lemeshow test is conducted. H0 in the Hosmer and Lemeshow test shows a difference between the model and the observation. With 2 of 5.362 at > 5%, it infers that H0 is not rejected, so the model does not differ from observations. Thus, the resulting model is good (fit). The next test of the whole model is Pseudo R^2. The Nagelkerke R^2 value of 0.061 infers that the model's ability is only 5.9%, explaining the probability of getting out of poverty. Of all the model tests, only pseudo R^2 shows poor results. In general, however, the logit regression model in this study is a good fit. It can be continued in partial testing to see the magnitude of the probability of getting out of poverty.

The partial test was carried out using the Wald test, particularly at the z statistic based on the significance level. Five variables of the nine household characteristics tested significantly affect the probability of getting out of poverty at =5%, of which four have a positive effect. Those significant four variables are (1) rural

location, (2) fathers working in the non-agricultural sector, (3) mother working in the non-agricultural sector, and (4) working mothers. In contrast, the variable of working fathers has a positive effect on increasing the probability of a household getting out of poverty at =10%. On the other hand, family size negatively affects a household's probability of getting out of poverty. The three remaining variables that do not affect increasing the exit from poverty are the father's education (high school and above), the mother's education (high school and above), and recipients of social assistance from the government.

TABLE 5
Logit Regression Model Testing: The Probability of Becoming Poor

Variables	B	Wald	Sig.	Exp (β)	(Exp(β)-1) x100
Constant	-2.094	2.122	0.145	0.123	-87.7
Father's education	0.249	1.938	0.164	1.282	28.2
Mothers' education	-0.031	0.031	0.861	0.969	-3.1
Father working	2.501	3.322	0.068	12.192	1119.2
Mother working	0.416	4.478	0.034	1.516	51.6
Small family size	-1.042	37.679	0.000	0.353	-64.7
Rural location of residence	1.074	39.892	0.000	2.927	192.7
Received social assistance	0.011	0.066	0.797	1.011	1.10
Father working in non-agriculture sector	0.472	6.755	0.009	1.603	60.3
Mother working in non-agriculture sector	0.795	12.989	0.000	2.214	121.4
Classification result				95.5%	
Omnibus test		χ^2=90.698		Prob= 0,00	
Hosmer and Lemeshow test		χ^2=5.362		Prob=0.718	
Pseudo R^2				Corn and Snell R^2= 0.019	
				Nagelkerke R^2= 0.061	

Source: Research Results

With the logit regression method, the interpretation of the model is then carried out by exponentiating the regression coefficient, namely exp(β), which is referred to as the odds ratio (See Table 5). Four significant variables have a positive effect, meaning that this variable increases the probability of a household escaping poverty. The first variable, rural areas, has a regression coefficient of 1.074

with an odds ratio of 2.927. The odds ratio means that a household's probability of getting out of poverty is greater if the household lives in a rural area. In other words, households living in cities are more likely to be poor. In terms of percentages, the households living in rural areas have a probability of 192.7% of escaping poverty.

The table also shows if the mother works, the household has a higher chance of escaping poverty. A household with a working mother has a probability of 51,6% of escaping poverty.

The data also suggests mothers working in the non-agricultural sector have an odds ratio of 2.214. It explains the household's probability of getting out of poverty is more significant if the mother works in the non-agricultural sector. A household with a working mother employed in the non-agriculture sector has a probability of 121.4% escaping poverty. Meanwhile, fathers working in the non-agricultural sector have an odds ratio of 1.603. It suggests that probability of a household escaping poverty is greater if the father works in the non-agricultural sector. A household with a father working in the non-agriculture sector has a 60.3% probability of escaping poverty.

Finally, the slightest significant chance of lifting a household out of poverty is a small family size (≤ 4 people), with a regression coefficient of -1.042 and an odds ratio of 0.353. Based on the odds ratio, households with large families have a negligible chance of getting out of poverty. Meanwhile, the working father variable results in a substantial probability for households to escape poverty, with an odds ratio of 12.192. However, this variable is not significant at =5%.

Results of the research show that rural location variable has the highest probability of moving families out of poverty. Living in rural areas reduces the household probability of becoming poor. In contrast, households in urban areas have a higher probability of becoming poor. The results of the study contradict the research conducted by Bilenkisi et al. (2015), Iqbal et al. (2020), and Alia et al. (2016), all of which found that people living in cities lower their chances of becoming poor.

The results of this study, however, align with research conducted by Gustafsson and Sai (2020), which revealed that living in cities can increase the risk of poverty in China. The same occurs in Bengkulu Province. Rural areas still have large areas of land, both plantations and rice fields, and the land can be processed to produce agricultural products from farming to still provide income for the village people. On the other hand, in the urban area of Bengkulu

Province, employment options in the non-agricultural sector (industry and services) are still minimal. The economy in Bengkulu Province has not developed rapidly, with most businesses in the city being SMEs; industrial businesses are still small, and so are home industries. Many urban people have businesses in the agricultural sector (including fisheries and plantations), such as fishing, farming, and gardening. In addition, the service sector is still a simple business that does not provide a significant income for its workers, such as retail trade.

Meanwhile, banking, hotel, and tourism services are still developing slowly. This condition results in the low income of urban communities, even though the cost of urban living is higher than in rural areas; this is reflected in the urban poverty line, which is higher than in rural areas. It causes the probability of households getting out of poverty to be more negligible for people who live in cities. In urban areas in Bengkulu Province, most of the poor are fishermen and laborers.

Working father job sector variable, specifically the non-agricultural sector, also affects probability of households getting out of poverty. Likewise, mothers who work in the non-agricultural sector increase the chances of households escaping poverty. The results of this study support research by Satrio (2018), as well as Nguyen et al. (2013). Satrio (2018) found that household members working in the agricultural sector increase their chances of becoming poor in West Java. Likewise, Nguyen et al. (2013) found that those working in the agricultural sector have a great chance of becoming poor in Vietnam. These studies revealed the existence of unpaid workers in the agricultural sector. In contrast, Alia et al., (2016) revealed that working in the non-agricultural sector reduces the probability of being poor in Benin.

The same happens in Bengkulu. As explained before, rural areas are more extensive than urban areas in Bengkulu. Most of those in the agricultural sector are family workers. Some of them work unpaid for the family, so their income is insufficient even though many family members work. Even though the land is prominent in the countryside, cultivating agricultural land still uses simple agricultural equipment, and the agricultural output is also not too large.

Meanwhile, working in the non-agricultural sector in rural areas can add value to the people who work there. Households having businesses in the food processing industry earn greater profits to pay all their workers. Income from this sector is higher than that in

the agricultural sector. The same is true for other types of businesses in this sector. It applies both in rural and urban areas. Thus, working in the non-agricultural sector can provide higher incomes, increasing the chances of households moving out of poverty.

Next, another variable with a positive effect is working mother. In a household, working mother increases the household's probability of escaping poverty. The results of this study are supported by those conducted by Filandri and Struffolino (2019) and Bilenkisi et al. (2015). Bilenkisi et al. (2015) explained that female household heads increase the chances for their families to become non-poor. Filandri and Struffolino also describe women who work to lift families out of poverty in European countries. The same thing occurs in Bengkulu Province. Working mothers earn income, hence increasing their family income. Increased family income will increase the household's probability of getting out of poverty.

As for the family size variable, the results of this study reveal a negative effect: a large family size reduces the chances of a household moving out of poverty. The results of this study align with research conducted by Fernández-Ramos et al. (2016) and Gounder (2013). Gounder stated that the poor are the households in Fiji with many family members. In Mexico, the Fernández-Ramos et al. (2016) study revealed chronic poverty in households with large families.

A similar condition occurred in Bengkulu. Most poor households have a large number of family members. It typically consists of a father, a mother, and several young children dependent on their parents. There are also households comprised of a father, mother, children, and grandparents. Grandparents who do not work in the household cause a high dependency ratio. This increased dependency ratio increases the chances of poverty, as supported by previous research (Gustafsson and Sai, 2020; Alia et al., 2016). Research conducted in China, Benin, and the Philippines found that the number of dependent family members (young and old) increases the risk of becoming poor.

5. CONCLUSION

This study found that households living in rural areas, where fathers and mothers work in the non-agricultural sector, have a high chance of getting out of poverty. The implication is that the government should encourage people to move to rural areas because there are still

vacant land. The community should use land in rural areas to provide income.

In addition, the government should encourage SME development. More SMEs will create jobs and provide additional income for the community. The type of business that can increase income of the poor is in the form of processing food with raw materials from the harvest itself, for example, opening a food stall or selling goods for daily living. The government should facilitate establishment of these community businesses so that more people can escape poverty.

Since most non-agricultural sector jobs are in urban areas, this research has revealed the need for government efforts to create jobs in either the industrial sector or SMEs. The government should encourage investment in the city to develop industries, absorb labor, reduce the unemployment rate, and increase the urban community income. In the long term, the construction of villages will prevent people from migrating to cities; this can encourage rural people to stay -- or for city people to return -- because of the plentiful land and employment opportunities.

Since working mothers increase the probability of households moving out of poverty, the implication is that the government needs to facilitate mothers to work outside the non-agricultural sector, such as providing women empowerment programs through entrepreneurship training and business capital assistance to earn adequate income, which can reduce the probability of poverty. This study found that higher number of family members significantly reduce the household's chances of escaping poverty. Hence the government should strengthen family planning efforts. Many children mean a higher cost of living to meet the family needs. Besides limiting the number of family members, efforts to improve the chances of escaping poverty through education, health, and other social assistance are very much needed. As this study found that social assistance recipients were poor households, the government should strictly monitor social assistance distribution.

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