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Efficiency of Micro Entreprises in Using Banking Capital for Poverty Alleviation

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***Abstract*— Poverty in East Java which is the highest in Indonesia with the number of poor people in the village more than in the city. This study aim to find out the efficiency of micro-enterprises in the agricultural sector who received Kredit Usaha Rakyat (KUR) and Commercial Credit (KK) and how the influence of efficiency factors and other factors on the poverty of micro-enterprises in the agricultural sector in East Java. Results show that average technical efficiency of KUR and KK recipients based on the DEA model estimates and the assumption of variable return to scale (TE DEA-VRS) is 0.92 and 0.8. Whereas the average technical efficiency of KUR and KK recipients based on the CRS DEA model estimates is 0.84 and 0.6. And then factors that influence the poverty of agricultural micro-enterprises based on logistic regression estimates are dummy plantations, technical efficiency, income, KUR, gender, and location of houses significant to the poverty status of micro entrepreneurs at a significance level α = 0.1.**

Keywords*— *Agricultural, Data Envelopment Analysis, East Java, Logistic Regression, Poverty

I. INTRODUCTION

Indonesia is an agricultural country with fertile land and abundant natural wealth. Therefore Indonesia has agricultural land to grow crops. In the second quarter of 2016 the agricultural sector became the number two of GDP contributor at 14.3% after the manufacturing industry sector [2]. Although only as a second contributor to GDP, agricultural sector is able to absorb the most labor compared to other sectors [2].

East Java as a Province with GRDP (IDR 1,855 T) number two after DKI Jakarta has a high agricultural potential [2]. This is evidenced by East Java Province as a national rice barn which in 2015 became a province with the highest number of rice harvests in Indonesia [2]. Moreover East Java also has been named as a national food granary where it has excess food stocks so it can supply food to other provinces in Indonesia.

Absorption of employment in agricultural sector in East Java is 36.42% of the total number of workers [2]. Abundant agricultural products in East Java not necessarily able to improve welfare of their workers. This can be seen from the level of poverty in East Java which is the highest in Indonesia with number of poor people in village more than in the city [2]. Poverty in these farmers can be caused by farmers' dependence due to low entrepreneurial spirit, inadequate availability of capital, and weak institutional support. In addition, the dependence of funds from farmers who depend on capital loans to Village Unit Cooperatives (KUD) or bank and non-bank financial institutions [22].

People of East Java who work in the agricultural sector are dominated by micro enterprises. The agricultural sector in this study has included agricultural sector according to Ministry of Agriculture which includes food crops sub-sector, agricultural crops sub-sector, livestock agriculture sub-sector and its results, forestry agriculture sub-sector, and fisheries sub-sector. Micro enterprises have an understanding based on the Law of the Republic of Indonesia No. 20 of 2008 is a business with criteria to have a net worth of a maximum of Rp. 50,000,000 excluding land and building business premises or having an annual sale of at most Rp. 300,000,000. Common obstacles that occur in micro-enterprises or MSMEs are the lack of capital in the form of numbers and sources, then the lack of managerial skills is also one of the obstacles. In addition to that the weakness of organization, limited marketing and economic pressure resulted in limited business scope [1].

Government has carried out various ways to overcome poverty in Indonesia, such as The Cluster III Poverty Program on People's Business Credit (Kredit Usaha Rakyat) Number: KEP-15 / D.I.M.EKON / 10/2011) which focuses on strengthening capital of Micro, Small, and Medium Enterprises by providing Kredit Usaha Rakyat (KUR). This KUR Program is given to micro enterprises, either

individuals or groups, to increase the productivity of their businesses so that their income increases and can escape from poverty.

In addition to Kredit Usaha Rakyat (KUR), micro enterprises can also obtain Commercial Credit (KK). Commercial Credit is a credit provided to facilitate debtor activities in business fields used to finance their business activities. Commercial credit has many types, one of them is venture capital credit for commercial purposes. Micro enterprises that need venture capital to strengthen their businesses, they often borrow from commercial banks for reasons of speed and convenience, but because there are no subsidies from the government so that additional costs and interest are higher than KUR.

This study aim to find out the efficiency of micro-enterprises in the agricultural sector and how the influence of efficiency factors and other factors on the poverty of micro-enterprises in agricultural sector in East Java. Based on this purpose of the research, it will be known how much efficiency of micro enterprises so it can be an evaluation material for entrepreneurs to develop their business. Moreover, this research is intended to find out how much influence KUR and KK have on poverty reduction so that it can be a reference for the government to make the next policy.

Previous studies conducted by Stephanie [24] in Kertawinangun Village, Kandanghaur Subdistrict, Indramayu District, stated that there was a direct relationship between the value of efficiency achieved with income per hectare of wetland rice farming. It means that the increase in farm efficiency will increase the income of farmers. Another similar research conducted by Santosa and Khariza [21] found that 4 districts had achieved relative efficiency from a total of 14 research subjects which showed that production efficiency in the agricultural sector was still minimal. In addition Lubis, et al. [20] in his research found that pineapple farmers in Subang Regency are still not technically efficient and still have potential to improve technical efficiency with the same input and technology.

Microcredit is given to poor people to help them make new businesses or to develop their existing businesses to be more developed and advanced (Johnson and Rogaly, [15]; Fasoranti, [9]). Loan period usually is a maximum short term of two years that is used to finance productive businesses such as agriculture, industry, and trade. Khandker [17] in a study in Bangladesh shows that microcredit has potential to significantly reduce poverty. Kaboski and Townsend [16] found that income, consumption, and investment in agriculture increased among recipients of microcredit, and increased income in a village in Thailand.

Gebremariam [10] mentions in his research that there is a positive relationship between small enterprises and economic growth. Then the study of factors that influence poverty in the Banten region are the gender of family head, number of family members, level of education of the family head, occupation, and the type of credit used [12]. Then Dacuycuy and Lim [6] in their study showed that the level of education, number of family members, composition of age of family members, ownership of health insurance affect poverty.

Based on previous research, it can be seen that each study only explains on the one side that is only examining the efficiency of micro enterprises or examining the factors that cause poverty. Therefore, this study wants to combine the two, in addition to examining the efficiency of micro enterprises, but also linking them to factors that influence the poverty status of micro enterprises. So that in this study will be able to see how the efficiency of micro-businesses from two types of credit recipients and their effects on poverty alleviation.

II. METHOD

Data used in this study is primary data obtained by surveying 7 regions in East Java, namely Kabupaten Gresik, Kabupaten Lamongan, Kabupaten Bojonegoro, Kota Pasuruan, Kabupaten Malang, Kota Kediri, and Kota Mojokerto in 2016. The selection of this region is based on in regions that represent high, medium and low GRDP. While the respondents studied were 100 micro enterprises in the agricultural sector. Variables used in this study can be seen in Table 1.

Table 1. Variables of Logistic Regression

Variables	Definition
Y	Poverty Status 0 = Poor 1 = Non Poor
D_1	0 = Non Paddy 1 = Paddy
D_2	0 = Non Plantation 1 = Plantation
X_1	Technical Efficiency 0 = Technical Efficiency ≤ 0.5 1 = Technical Efficiency > 0.5
X_2	Number of Family Member
X_3	Income
X_4	KUR Access 0 = KK 1 = KUR
X_5	Education of Entrepreneur 0 = Other 1 = High School and above
X_6	Expenditure
X_7	Gender of Family Head 0 = Female 1 = Male
X_8	Location of Houses 0 = Village 1 = City
X_9	House Area

The method used in this study there are two methods, namely the first Data Envelopment Analysis to calculate the efficiency of the micro sector of the agricultural sector. Then the second method is Logistic Regression to find out the factors that influence the poverty of micro entrepreneurs in the agricultural sector. Sampling method used is from Sevilla et, al. [23].

$$n = N/(N \times d^2 + 1) \quad (1)$$

where :

n : sample

N : Population of Micro Enterprises

d : degree of freedom

Efficiency is one of the important things for companies where the concept of efficiency is often defined as doing something right. The concept of efficiency was introduced by Farrell (1957) which was the development of the model encountered by Debreu [7] and Koopmans [18]. Farrell explains the concept of efficiency measurement that takes into account several inputs (more than one input). Farrel [8] distinguishes company efficiency into two components, namely technical efficiency and allocative efficiency. These two components when combined will result in total efficiency or economic efficiency. According to Farrell [8] in Coelli et al. [5], company efficiency consists of two components, namely technical efficiency that reflects the company's ability to achieve maximum production capacity of existing inputs, and profitable price / allocative efficiency that reflects the company's ability to use inputs in optimal proportions, with limits on each input prices. Both of these measurements can then be combined to produce measurements for total economic efficiency.

Poverty by nature is divided into two, namely absolute poverty and relative poverty. Absolute poverty is the number of people living below the minimum level of income needed to meet basic needs such as food, clothing and housing [25]. Meanwhile, poverty is relatively a temporary condition while the income level is able to reach a minimum level of basic needs but still far lower than the surrounding community [12]. Poverty is a complex problem, so ways to reduce poverty also require accurate analysis, which involves all components of the problem,

and appropriate treatment strategies are needed, sustainable and not temporary. Some variables can be used to detect poverty problems, and these variables bring up a number of strategies targeted for poverty reduction and sustainability.

Poverty based on criteria of the Central Berau of Statistics (BPS) can be measured using the concept of meeting basic needs. Through this approach poverty is seen as an economic inability to meet food and non-food needs measured by expenditure. So the poor are people who have an average per capita expenditure below the poverty line. The poverty line is the sum of the Food Poverty Line (GKM) which is equivalent to 2100 kilocalories per capita per day and Non-Food Poverty Line (GKNM) which includes the minimum needs for housing, clothing, education and health [2]. Poverty line in East Java per March 2016 equivalent to Rp. 321,761/per capita /per month.

Data Envelopment Analysis (DEA) was first developed by Farrel [8] which measures the technical efficiency of one input and one output into multi inputs and multi outputs by using relative efficiency values as input ratios (single virtual) and output (single virtual output). There are two models of approaches based on the relationship between input and output, namely the model of constant return to scale (CRS) and variable return to scale (VRS).

Constant return to scale (CRS) model according to Coelli, et, al. [5] are as follows:

$$\begin{aligned} & min_{\theta,\lambda}\theta, \\ \text{St} \quad & -q_i + Q\lambda \geq 0, \\ & \theta x_i - X\lambda \geq 0, \\ & \lambda \geq 0 \qquad (2) \end{aligned}$$

Where θ is a scalar, and λ is $I{\times}1$ vector of constants. The value of θ obtained is the efficiency of the i-micro enterprise with a value of $\theta \leq 1$, where a value of 1 which indicates the point at the border and hence the company that is technically efficient according to Farrel [8]. It should be noted that the completion of linear programming must be completed as many as 1 time, once for each micro enterprise in the sample. Then the value of θ can be obtained from every micro enterprise.

According to Coelli, et al [5] the CRS assumption is right to use if all companies operate on an optimal scale. However, imperfect competition, government regulations, financial constraints, etc., can cause companies not to operate optimally so it is recommended to use the assumption of variable return to scale (VRS). The use of CRS assumptions when a company does not operate at an optimal scale will result in technical efficiency values that are confused by scale efficiency. Using the assumption of VRS can enable calculating technical efficiency without the effect of scale efficiency.

The model of the variable return to scale (VRS) based on Coelli, et al [5] is the following.

$$\begin{aligned} & min_{\theta,\lambda}\theta, \\ \text{St} \quad & -q_i + Q\lambda \geq 0, \\ & \theta x_i - X\lambda \geq 0, \\ & I1'\lambda = 1 \\ & \lambda \geq 0 \qquad (3) \end{aligned}$$

Where I1 is an I×1 vector of ones. This approach results in greater or equal technical efficiency scores using CRS assumptions.

We need to know that convexity constraints ($I1'\lambda = 1$) basically ensuring that inefficient companies are only "benchmarked" against companies of the same size. These Convexity Constraints are not used in CRS assumptions so that in CRS a company can be compared to a company that is substantially larger (smaller) than the company

Logistic regression is one method used to modeling dependent variables that are categorical (nominal / ordinal in scale) based on one or more independent variables that can be categorical or continuous (interval / ratio scale) [13].

Binary logistic regression has a dependent variable (Y) which is dichotomous or binary which has only two categories using 1 if success and 0 if it fails, the dependent variable (Y) follows the Bernoulli distribution for each single observation. The probability function for each observation is given as follows [13].

$$f(y_i) = \pi(x_i)^{y_i}(1 - \pi(x_i))^{1-y_i} \qquad (4)$$

Which is $y_i = 0,1$
If $y_i = 0$, then
$f(0) = \pi(x_i)^0(1 - \pi(x_i))^{1-0} = 1 - \pi(x_i)$
If $y_i = 1$, then

$$f(1) = \pi(x_i)^1(1 - \pi(x_i))^{1-1} = \pi(x_i)$$

The logistic regression model is as follows.

$$\pi(x) = \frac{exp(\beta_0 + \beta_1 x_1 + \cdots + \beta_p x_p)}{1 + exp(\beta_0 + \beta_1 x_1 + \cdots + \beta_p x_p)} \qquad (5)$$

where p is the number of independent variables. To facilitate the estimation of regression parameters, the logistic regression model in equation (4) can be described using logit transforms from $\pi(x)$ to be as follows:

$$g(x) = \beta_0 + \beta_1 x_1 + \cdots + \beta_p x_p \quad (6)$$

Equation (5) is a linear function of the parameters, with as many independent variables as p.

III. DISCUSSION AND RESULT

A. Technical Efficiency

Technical efficiency of the micro sector in the agricultural sector is calculated based on two assumptions, CRS and VRS (Table 2).

Table 2. Micro Enterprises Efficiency of KUR and KK Recipients

	N		Average		Min		Max		Standard Deviation	
	KUR	KK	KUR	KK	KUR	KK	KUR	KK	KUR	KK
TE-DEA VRS	50	50	0.92	0.8	0.67	0.12	1	1	0.12	0.31
TE-DEA CRS	50	50	0.84	0.6	0.33	0.1	1	1	0.17	0.34
SCALE (CRS/VRS)	50	50	0.92	0.77	0.33	0.15	1	1	0.14	0.29

The calculation of technical efficiency is divided into two based on the type of credit taken, namely Kredit Usaha Rakyat (KUR) and Commercial Credit (KK).

The average technical efficiency of KUR and KK recipients based on DEA model estimates and assumption of variable return to scale (TE DEA-VRS) are 0.92 and 0.8 respectively in the efficiency range of 0.67 - 1, and 0.12 - 1 with standard deviations of 0.12 and 0.31. This efficiency value shows that the average performance that can be achieved by entrepreneurs with existing technology in their companies that receive KUR and KK is 92% and 80% of the results of the maximum potential in this field. In other words, value of technical efficiency shows that average gap between the best micro enterprise performance and other micro enterprises is around 8% for companies that receive KUR and 20% for KK recipients. This shows that the performance of micro enterprises who received KUR and KK can still increase by around 8% and 20% to achieve maximum yield potential.

The average technical efficiency of KUR and KK recipients based on the CRS DEA model estimates are 0.84 and 0.6 in the efficiency range 0.33 - 1 and 0.1 - 1 with standard deviations of 0.17 and 0.34, indicating that micro enterprises can reach around 84% and 60% of potential output if using CRS. Based on the value of CRS efficiency, the achievement of micro-enterprises that receive KUR and KK in East Java can still increase by around 16% and 40% to achieve maximum results using constant return to scale (CRS) technology.

Technological differences are shown in the CRS/VRS scale, indicating that the maximum output produced by micro enterprises with existing technology as a percentage of output is reasonable using CRS. The scale has a value between 0 - 1, which means it is closer to 1, the performance in the agricultural business run by the entrepreneur is closer to the line, and vice versa. The average CRS/VRS scale for KUR and KK recipients are 0.92 and 0.77 in the range of 0.33-1 and 0.15-1 with standard deviations of 0.14 and 0.9. This calculation means that with the same input, the maximum output is reasonable for each recipient of KUR and KK of around 92% and 77% generated by CRS.

B. Expected Output and Input

Expectations of output and inputs are used to determine how much we need to increase output and reduce inputs so that enterprises achieve technical efficiency. Based on DEA-VRS estimates (Table 3), entrepreneur actual income who receive the KUR are expected to increase from Rp 3,100,200 to Rp 3,362,800 or Rp 262,600 with an increase of 8.47%. Subsequently, income for KK recipient entrepreneurs are expected to increase from Rp 1,968,000 to Rp 2,507,800 or Rp 539,800 with a warning rate of 27.43%.

Table 3. Average Real Output and Expected Output of the Micro Enterprises

	n	Real Output	Expected Output	Change in Output	
				(Rp)	(%)
DEA-VRS KUR	50	3,100,200	3,362,800	262,600	8.47
DEA-CRS KUR	50	3,100,200	3,643,300	543,100	17.52
DEA-VRS KK	50	1,968,000	2,507,800	539,800	27.43
DEA-CRS KK	50	1,968,000	3,259,800	1,291,800	65.64

Average income of KUR recipient entrepreneurs based on DEA-VRS (Table 4) is expected to increase from Rp 3,100,200 to Rp 3,643,300 with an increase of 17.52%. Furthermore, the average income of KK recipient entrepreneurs is expected to increase from Rp 1,968,000 to Rp 3,259,800 with an increase of 65.64%. In general, this income expectation based on DEA-CRS is greater than expected income based on DEA-VRS estimates.

Table 4. Average Real Input and Expected Input of the Micro Enterprises

	Real Input KUR	Expected Input KUR		Expected Percentage KUR	
		DEA-VRS	DEA- CRS	VRS	CRS
I1 (Capital)	50,365,300	49,970,000	38,548,000	-0.8	-23.5
I2 (Supporting Material)	22,207,200	20,682,200	16,211,000	-6.9	-27.0
I3 (Main Material)	35,139,800	34,500,000	30,069,000	-1.8	-14.4
I4 (Machine Cost)	17,096,600	15,715,900	2,974,900	-8.1	-82.6
I5 (Labor)	1	1	1	0.0	0.0
	Real Input KK	Expected Input KK		Expected Percentage KK	
		DEA-VRS	DEA- CRS	VRS	CRS
I1 (Capital)	41,279,300	30,195,500	3,715,600	-26.9	-91.0
I2 (Supporting Material)	14,154,400	12,762,500	8,575,400	-9.8	-39.4
I3 (Main Material)	32,221,400	31,295,200	28,974,800	-2.9	-10.1
I4 (Machine Cost)	20,188,600	2,433,500	757,000	-87.9	-96.3
I5 (Labor)	1	1	1	0.0	0.0

DEA-VRS modeling estimates provide input expectations based on the technology used. Based on DEA-VRS estimates, the actual input cost of entrepreneurs is expected to decline to the input cost level of 1,2,3,4 and 5. Estimated cost of inputs lowered the largest for companies receiving KUR is at machine cost (8.1%). Subsequently, the lower cost of inputs in KK receivers is at machine costs (87.9%). Based on DEA-CRS estimates, the average cost of micro enterprise inputs for KUR receivers is expected to be lowered to input costs of 1,2,3,4 whereas the number of labor is unchanged. The expected cost of inputs is lowered to KUR's receivership is the cost of the machine (82.6%), and then the KK receiver of the machine is expected to be lowered by 96.3%.

C. The Determinants of Micro Entrepreneur's Poverty Status

Estimation the determinants of agriculture and livestock micro entrepreneur poverty status using logistic regression showed in Table 5. Likelihood Ratio (LR) test yields a statistical value of LR 107.64 with a probability value of 0.000 which less than α (0.10).

Table 5. Estimation of Logistics Regression

Variables		*Odds Ratio*	Coefficient	Standard Error	Z-Statistic	Probability
Constant	C	7.10E-05	-9.55	4.95	-1.93	0.054*
Paddy	D_1	0.540	-0.61	1.94	-0.32	0.75
Plantation	D_2	0.024	-3.71	2.16	-1.72	0.08*
Technical Efficiency	X_1	17.390	2.85	1.49	1.91	0.05*
Number of Family Member	X_2	0.610	-0.48	0.3	-1.57	0.116
Income	X_3	1.280	0.25	0.098	2.52	0.012*
KUR Access	X_4	59.770	4.09	2.006	2.04	0.042*
Education	X_5	2.146	0.76	2.41	0.32	0.752
Expenditure	X_6	0.994	-0.006	0.031	-0.19	0.848
Gender of Family Head	X_7	179.500	5.19	1.74	2.98	0.003*
Location of Houses	X_8	55.370	4.01	2.11	1.9	0.058*
House Area	X_9	1.003	0.003	0.005	0.62	0.533
LR					107.64	0.000*
Log Likelihood					-14.2	

Information: * shows a significant effect at the level of significance α = 0.10

Based on the findings of the LR test, the null hypothesis (H_0) states that the independent variable simultaneously has no effect on the dependent variables (H_0: $\beta_1 = \beta_2 = \ldots\ldots = \beta_k = 0$) is rejected. In other words, independent variables simultaneously have a significant effect on the poverty status of the 0.10 level of significance. Based on partial test shows that the independent variables are dummy plantation (0.08), technical efficiency (0.05), income (0.012), KUR (0.042), gender (0.003), and location of houses (0.058) significantly influence the poverty status of micro entrepreneurs at a significance level α = 0.1. Variables of technical efficiency, income, KUR, gender, and location have a positive effect on poverty status. While micro entrepreneurs in the plantation sector negatively affect the poverty status.

The odd ratio value of the plantation dummy is 0.024 which means that micro-agricultural entrepreneurs in the plantation sector have the possibility of being not poor 0.024 lower than micro-agricultural entrepreneurs in other fields. Variables of technical efficiency have an odds ratio of 17.390 which means that micro enterprises that have technical efficiency above or equal to 0.5 will have the possibility of not being poor 17,390 higher than micro enterprises that have technical efficiency less than 0.5. The income odd ratio is 1,280 which means that every increase in the income of a micro-entrepreneur in one unit, then the possibility of being non-poor is 1.28 times higher than the entrepreneur whose income is lower. Then KUR Access variable has an odd ratio of 59.77, means that micro entrepreneurs who have access to the KUR program have the possibility of being non-poor 59.77 times higher than micro entrepreneurs who obtain KK. Then the odds ratio of the gender is 179.5 which means that households with a male head of household are 179.5 times more likely to be non-poor than households with female heads. Odd ratio of location variable is 55.37 which means that households living in urban areas have the possibility of being non-poor 55.37 times higher than households living in rural areas.

Technical efficiency affects the poverty status of micro entrepreneurs, according to Carter William [3] states that the resulting production output also determines the level of profit gained. The greater amount of output achieved, the greater profit that the company will get. The greater profits earned by micro entrepreneurs, the greater the income given to families. Then income also affects poverty status of micro entrepreneurs, this is in line with research by Janjua and Kamal [14] showing that the growth of per capita income, reducing income inequality and education play an important role in poverty alleviation.

Results obtained from logistic regression analysis, KUR access affects poverty status. The results of this study are consistent with research by Chowdhury [4] which shows that the effectiveness of microcredit as a way to reduce poverty is not aimed at the short term, that is, microcredit can reduce poverty in the long run. The purpose of credit in this case is to create a steady increase in income. Chowdhury proved that the impact of microcredit is very strong on poverty reduction for about six years. Then the gender of the head of the household also affects the poverty status, this is in accordance with the study of Litchfield and Mc Gregor [19] also shows that families led by women have a high probability of experiencing poverty and their production level is lower than men. They argue that this is due to an increase in gender inequality in fields outside work. Finally, the location of the house influences the status of poverty. According to Geda et al. (2001) with a study on poverty determination in Kenya found that poverty is concentrated in rural areas, especially in agriculture. Workers in agriculture mostly tend to be poor. Therefore, investment in agriculture to reduce poverty must be a priority. Families living in urban areas with a lower probability of being poor than families living in rural areas.

IV. CONCLUSION

The average technical efficiency of KUR and KK recipients based on the DEA model estimates and the assumption of variable return to scale (TE DEA-VRS) are 0.92 and 0.8 respectively in the efficiency range of 0.67 - 1, and 0.12 - 1 with standard deviations of 0.12 and 0.31. Whereas the average technical efficiency of KUR and KK recipients based on the CRS DEA model estimates is 0.84 and 0.6 in the efficiency range of 0.33 - 1 and 0.1 - 1 with standard deviations of 0.17 and 0.34. This shows the technical efficiency of micro enterprises in agriculture is not entirely efficient so it still needs to be improved. To increase efficiency, it is necessary to recalculate the appropriate input and output so that it can be efficient.

The factors that influence the poverty of agricultural micro-enterprises based on logistic regression estimates are dummy plantations (0.08), technical efficiency (0.05), income (0.012), KUR Access (0.042), gender of family head (0.003), and location of houses (0.058) are significant to the poverty status of micro entrepreneurs at a significance level α = 0.1.

Based on the results obtained from this study it can be concluded that the efficiency of micro-enterprises is one of the factors that influence poverty. So as to help micro entrepreneurs get out of poverty, one of which is by increasing the efficiency of micro enterprises. Because by increasing efficiency, it will increase income so that it can improve welfare. Next is by continuing to government campaign about family planning programs can be one way to reduce poverty because as in the results of the study that fewer number of family members, the probability of not being poor is higher than those who have more family members. The last is KUR access variable where entrepreneurs who receive KUR have a greater likelihood of being non poor than KK recipients. This can be the government's input to continue the KUR program and to socialize more broadly to the micro entrepreneurs.

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