

## **DETERMINANTS OF CREDIT ACCESS BY MICROENTERPRISE**

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### **ABSTRACT**

The number of micro-entrepreneurs and the dominant number of micro enterprises compared to medium and large-scale enterprises in Indonesia is not driven by the provision of access to credit and venture capital for micro businesses. This resulted in a micro-sector sector identical to the poor being vulnerable to exploitation by moneylenders who exploit the difficulties of micro entrepreneurs accessing credit from the banking sector.

This study examines the factors that determine the accessibility of credit by micro entrepreneur in Bojonegoro regency. A total sum of 270 micro entrepreneurs who have applied for banking loan were sampled from the study area. With an binary logistic regression model the research resulting that education, skill on entrepreneur, and monthly net profits generated by the microenterprise are significant in determining the accessibility of microcredit.

Keywords: micro entrepreneur, microcredit, credit accessibility.

### **INTRODUCTION**

Credit accessibility by micro, small and medium enterprise (MSMEs) as a source of capital is one of the very important factors on the development process in each country (Kasali, Aznor, & Lim, 2016). In the long term, access to credit for MSMEs not only expected to be a solution of capital problems for medium-sized business but also will have an effect on the provision of employment and ultimately become a path in poverty alleviation.

The number of MSMEs continued to increase by years, an increase of 2.41 percent from 2012 to 2013, reaching 57.89 million business units in 2013 where 98.77 percent of them are micro businesses (Indonesian Ministry of Cooperative and MSMEs, 2014). Table 1 shows that micro, small and medium Enterprises (MSMEs) in Indonesia have a significant role in the national economy, especially into Gross Domestic Product (GDP) and employment. The contribution of MSME to the national GDP in 2012 was 4,869.8 Trillion rupiah or 59.8% of the total business contribution to National GDP. While in 2013, it was 5,440.50 Trillion rupiah and able to absorb the workforce of 107.6 million workers in 2012 compared with the large-scale business sector that only absorbed a labor force of 3.2 million workers in the same year. While in 2013 the employment by the MSMEs rose to 114 million workers, wherein the same year the large-scale business sector only employed 3.5 million workers.

**Table 1. Total Amount of Contribution to GDP and Employment Absorption  
By MSMEs and Large Scale Business.**

	Contribution to GDP				Employment Absorption			
	2012		2013		2012		2013	
	(billion IDR)	%	(billion IDR)	%	(persons)	%	(persons)	%
Micro Sector	2.951.120	35,8	3.326.564	36,	99.859.517	90,1	104.144.08	88,
Small Enterprise	798.122	1	876.385	90	4.535.970	2	2	90
Micro Enterprise	1.120.325	9,68	1.237.057	9,7	3.262.023	4,09	5.570.231	4,7
Micro Enterprise	4.869.568	13,5	5.440.007	2	107.657.50	2,94	3.949.385	3
Micro Enterprise	4.869.568	9	5.440.007	13,	107.657.50	9	114.144.08	3,3
Micro Enterprise	4.869.568	9	5.440.007	72	107.657.50	97,1	114.144.08	6
Total MSMEs	3.372.296	59,8	3.574.943		3.150.645	2,84	2	
Larga-Scaled Business		40,9		60,			3.537.162	96,
		2		34				99
				39,				3.0
				66				1

Source: Indonesian Ministry of Cooperative and MSMEs, 2014

In contrast to the dominant number micro business compared to other types of business (small, medium and large enterprises) precisely micro sector get the smallest portion of credit distribution from national banks compared to other types of business. Table 2 shows that micro businesses receive credit disbursements of 113.7 trillion rupiahs or only 4.1% of total business loans disbursed by banks during the year. Over the next few years, the number of credit disbursements for micro businesses also ranged only 4% of the total business loans disbursed by banks, in 2013 by 4.1% in 2014 by 4.8% and 4.8% by 2015.

**Table 2. Growth of Micro, Small and Medium Enterprise (MSMEs)  
And Non MSMEs Credits by Banking in 2012-2015.**

Credit Indicator	2012		2013		2014		2015	
	(Million IDR)	%						
Micro Enterprise Credit	113,754.1	4.1%	137,797.7	4.1%	179,748.3	4.8%	199,123.4	4.8%
Small Enterprise Credit	169,882.5	6.1%	193,060.3	5.7%	224,348.3	5.9%	239,194.5	5.7%
Medium Enterprise Credit	268,589.5	9.7%	308,613.5	9.1%	363,481.1	9.6%	392,338.3	9.4%
<b>MSMEs Total Credit</b>	<b>552,226.1</b>	<b>19.9%</b>	<b>639,471.5</b>	<b>18.9%</b>	<b>767,577.7</b>	<b>20.3%</b>	<b>830,656.2</b>	<b>19.9%</b>
<b>Non MSMEs Credit</b>	<b>2,226,731</b>	<b>80.1%</b>	<b>2,744,758</b>	<b>81.1%</b>	<b>3,012,536</b>	<b>79.7%</b>	<b>3,345,787</b>	<b>80.1%</b>

Source: Bank Indonesia, 2017.

The banking sector is the largest source of capital that can be uses by the business. However, the banking industry that is organized on commercial principles makes MSMEs in particular micro-groups groups difficult to meet the technical requirements in obtaining credit, especially collateral, business feasibility, and other administrative requirements. The principle of

prudential banking in credit distribution or often referred as 5C principles: character, capacity, collateral, capital, and condition becomes the main barrier for the business micro to access the source of capital (Nengsih, 2015).

Microcredit or capital financing specifically targeted to the micro-enterprise sector identical with the poor community is a classic problem in a country's economy development (Haryadi, 2006). The availability of capital that is easily accessible by micro entrepreneurs is a very important policy, because this group is always become the exploited persons by informal moneylenders.

A micro business sector identical to the poor society needs an access to capital in the framework of sustainability and development of their business. With the loans, the poor can create their own jobs, and some of them can employ all members of their families, and even or others. Thus, the analysis of access to credit for micro business groups besides as a poverty alleviation strategy is also important in the context of reducing unemployment in each region (Kalirajan & Singh, 2009).

This study aims to reveal the factors that influence the acquisition of credit by micro enterprise with research area in Bojonegoro region. Where the research results expected to be an input for the development of microfinance policy. Based on Central Bureau of Statistics East Java latest data (2016), poverty rate in Bojonegoro Regency in 2015 is 15.41% or 8th level of poverty level in East Java, so expansion of credit access as source of capital of micro entrepreneur sector is expect to be part as poverty alleviation strategy in Bojonegoro regency.

#### **LITERATURE REVIEW**

Formulated by UNCDF, CGAP and ADB, Microcredit is a micro-financing, micro meaning within this context with regard to transaction value and financial capacity of customers who generally give into the poor category (Kalirajan & Singh, 2009). Based on historical data of Bank Indonesia (2017), the national banks only provide a small portion of lending to micro business groups. That is due to the assumption that micro business loans have high transaction costs and the difficulty of measuring the micro business financial ratios because generally their business finances are not separated from the family private finance (Wanjohi, 2009).

Micro enterprise tend to have a much more volatile growth and income pattern than large companies do. Their survival rate is lower than that of larger companies. The medium enterprises face obstacles in applying for loans to banks compared to large-scale companies and established companies. (Kung'u, 2015).

Many studies have revealed that countries that provide easy access to finance for the SME sector have significantly reduced poverty rates from countries that still have a high gap in capital access between the large-enterprise sector and the SMEs (Yang, et al 2002). Empowering the poor through the provision of capital and credit is essential for economic development (El-komi, 2010)

The mortgage payment by the micro-credit beneficiaries becomes an important discussion in the development of a micro financing model for micro entrepreneurs. Empirical studies shown that the ability to pay for micro-credit installments is also influenced by the quality of the business actor as the borrower itself and other factors like education, amount of loan, gender, duration of loan, and various credit rules applied (Roslan and Abd Karim, 2009; Smith 2010). It also conveyed that micro credit repayments would be more effective if microfinance institutions relax the rules of repayments, so they are more realistic for micro entrepreneurs. This is to encourage the participation of the poor within financial inclusion (Abu-Hadi, et al, 2013).

In the analysis of credit, distribution to micro-scale entrepreneurs must also discuss about the feasibility of lending to the poor. As stated earlier that the concept of microcredit becomes an urgent discussion to be resolved due to the inability of the micro sector to qualify the

requirements of obtain loan from conventional banks. Therefore, the concept of 5C lending cannot applied to credit analysis for the poor.

As an illustration of the feasibility of lending to micro entrepreneurs, researchers use benchmark data on the number of global credit distribution and non-performing loans by banks in Indonesia from 2011 to 2013.

**Table 3. Total Loans disbursed and Non-Performing Loan on MSMEs And Large Firm by Banking in Indonesia (in Million IDR).**

	2011	2012	2013
<b>MSMEs' Loan</b>			
Total amount of credit	458.164	526.397	608.828
NPL	15.674	17.011	19.515
NPL percentage	3.42%	3.23%	3.21%
<b>Non MSMEs/ Large Firm sector Loan</b>			
Total amount of credit	1.151.392	1.350.606	1.562.104
NPL	26.115	31.714	37.022
NPL percentage	2.27%	2.35%	2.37%

Source: Indonesian Financial Services Authority, 2015

From Table 3, it appears that although the presentation of bad-loans for credit disbursement in the MSME sector is higher than the percentage of nonperforming loan at large-scale enterprises. However, the percentage of non-performing loans in small and micro enterprises continues to decline from year to year, compared to the percentage of non-performing loans in the large-scale business sectors, which increased between 2011 and 2013.

### REVIEW OF EMPIRICAL LITERATURE ON MICROFINANCE ACCESSIBILITY

The perfect market theories of financing says that all valuable projects should be funded (Merton, 1987), but the measurement of creditworthiness through the projection of cash flow, and other financial instruments is certainly very difficult for entrepreneurs in the micro sector. Banks should apply a special feasibility review model for credit application from small and micro entrepreneurs.

The low absorption of credit in micro sectors is often due to overly stringent requirements by lending providers, so it would be too difficult for the micro sector to meet these requirements. The absorption of microcredit is another measure of the effectiveness of microfinance programs. Level of education, gender, and family size, household expenditure are micro entrepreneurs consider some of the factors that affect the credit acquisition.

Some studies also have attempted to construct the measures for form performance in the SME sector as factors that involve they credit accessibility, and found that greater sales and profits also associated with greater access to credit (Kung'u 2015)

### RESEACRH METHODS

#### Research Design

The research uses an explanatory research design, Explanatory is a study that aims to determine the relationships between one variable with other variables or how a variable affects other variables (Sugiyono, 2010).

#### Data Source and Collection procedure.

To achieve the objective of this study, primary data were collected from the study area: Bojonegoro Regency. Bojonegoro is one of the districts in eastern Java province that is still synonymous with poverty. The population of Bojonegoro Regency is 1,453,880 people, of which 14.35% are in poor condition.

In this study cross-sectional data collected by structured questionnaires. Data collection of micro entrepreneurs is prioritized on various traditional markets in Bojonegoro. Research data obtained through the filling questionnaire directly by the respondents and through interviews if the condition of the respondents possible.

### Data Analysis

To identify the determinant factors of credit accessibility by micro entrepreneurs, the researcher adopted logistic regression model. The logit & probit models is a binary option model that is typically used in credit accessibility analysis in various literatures, since the dependent variable of the study is dichotomous it is not relevant if the analysis uses ordinary least square models (Xia, Chistopher, & Baiding, 2011).

Based on Gujarati & Potter, (2009) in the estimation of logit model equation of this research describe as follows:

$$Li = \ln\left(\frac{P_i}{1 - P_i}\right) = Z_i = B_0 + B_j \sum_{j=1}^k X_i + u_i$$

Where the value of Zi is the dependent variable in the study and in the form of data dichotomy (yes or no) while  $X_i$  ( $X_1, X_2, X_3, \dots, X_n$ ) are the independent variable.

The logit regression model used also adopts from Xia, Chistopher, & Baiding (2011), where statistical equations can be described as follows:

$$Li = \ln\left(\frac{P_i}{1 - P_i}\right) = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8)$$

$P_i$  is a binary dependent variable,  $P_i=1$ ; if the micro entrepreneur is loan beneficiary and  $P_i=0$ ; if the person is microcredit loan non-beneficiary but eligible microcredit applicant.

$X_1$  = Age

$X_2$  = Gender

$X_3$  = Educational level

$X_4$  = Skill in Entrepreneurship

$X_5$  = Number of employees

$X_6$  = Monthly turnover

$X_7$  = Net profit per month

$X_8$  = Household size

In this model, credit access is considered as dependent variable, while age, gender, educational level, skill in entrepreneurship, number of employees, monthly turnover, net profit per month, and household size are considered as explanatory or independent variable.

## EMPIRICAL RESULT

### Descriptive of Respondents.

Researchers have conducted a survey of 287 micro entrepreneurs in Bojonegoro regency, but 77 respondents were excluded from the sample data because they had never applied for micro credit application to the bank. Table 4 shows the demographic statistics of the respondents. Table 1 shows that the percentage of the gender distribution is male respondents are 46% and female are 54% from the total of respondents. Age distribution in percentage shows that about 38% of the respondents fall between ages of 41-55 years. This is indicates that most of the eligible candidates for microcredit obtainers in the sudy area are still in their productive age.

**Table 4. Demographics of Respondents**

<b>Total sample</b>	
<b>210 (100%)</b>	
<b>Gender</b>	
1. Male	45.9%
2. Female	54.1%
<b>Age</b>	
1. less than 25 year	18.1%
2. 25-40 year	27.1%
3. 41-55 year	37.6%
4. more than 55 year	17.1%
<b>Education</b>	
1. elementary	30.0%
2. Junior high	25.2%
3. Senior high	22.4%
4. Diploma/ university	22.4%
<b>Entrepreneur skill</b>	
1. less than 3 year	4.3%
2. 3-5 year	31.4%
3. 5 -10 year	39.0%
4. more than 10 year	25.2%
<b>Number of employee</b>	
1. 1- 4 people	40.0%
2. 5-19 people	39.0%
3. 20-49 people	9.5%
4. more than 50 people	11.4%
<b>Total sales/ monthly turnover</b>	
1. ≤ 10 million IDR	49.0%
2. 10-25 million IDR	35.7%
3. 25-100 million IDR	12.4%
4. > 100 million IDR	2.9%
<b>Monthly net profit</b>	
1. ≤ 1 million IDR	40.0%
2. 1-2,5 million IDR	39.5%
3. 2,5-10 million IDR	13.8%
4. > 10 million ID	6.7%
<b>Household size (member)</b>	
1. 1- 3 persons	46.2%
2. 4-5 persons	47.6%
3. above 5 persons	6.2%

*Source: field survey data*

Table 4 also depicts the profiles of the respondents. About 75% of the respondents have less than 10 years' experience in entrepreneurship. The proportion of the household size shows that 46.2% respondents are less than three persons per households. About 40 percent of the respondents accommodate above four persons as employee of the microenterprise. Average of

the research sample are microenterprise with monthly sales turnover less than 25 million rupiah, with the net income less than 2.5 million rupiah per months.

**Result and Discussion.**

The results of binary logistic regression analysis of the determinants of access to micro credit are shown in table 5. The result revealed that the coefficient education, and net profit were statistically significant at 5% probability level, while entrepreneur skill/ experience was significant at 10 percent level signification.

**Table 5. Results of Logit Estimates on Determinant Of Credit Access By Microenterprise**

Variables	Estimated coefficients	Sig
Gender	0.287	0.674
Age	-0.149	0.465
Educational level	0.128*	0.035
Entrepreneur skill	0.170**	0.082
Total of employee	0.151	0.644
Turnover	0.180	0.533
Net profit	0.163*	0.302
Household size	- 0.239	0.431
Mc Fadden R-Squared (Pseudo) R <sup>2</sup>	0.052	
Source: Field survey data		
*variable significant at 5%, **variable significant at 10%		

Table 5 indicate that the coefficient of education, entrepreneur skill, and net profit were positive and significant at a specific level, while variable gender, total employee, turn over had a positive coefficient but were not significant. More specifically, the coefficients of age and household size were negative but not at significant level.

The results of analysis revealed that variables with positive signs indicate that their higher values increase the chances that the micro entrepreneur have to access credit and vice versa. The positive coefficients of education and entrepreneur skill are supports the previous study by Phan (2012). Empirical results that find net profit, gender, total employee, turn over had have positive coefficients also supported by Obesisan and Akinlade (2013) and (Kasali et al., 2016) The negative coefficients although it was not significant of variable age (-0.149) and household size (-0.239) imply that the chances of the entrepreneur in accessing credit decrease with age and household size. These result supported by similar study by Xia, Chistopher, & Baiding, (2011).

**CONCLUSIONS**

This Study examines several factors that determine the accessibility of micro-entrepreneur to credit from the bank in Bojonegoro regency. The results obtained from eight variables analyzed; only three that proved to have a significant influence on the acquisition of credit, there are educations, entrepreneur skills, and monthly net profit by the microenterprise have a significant positive relationship with microcredit access.

Based on the findings of this study, the government should provide financing that friendlier for micro entrepreneurs, especially for entrepreneurs who still have constraints such as monthly profit is still relatively small and minimal entrepreneurial experience. Also for start-up entrepreneur with low level of education and experiences.

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