

# ACCESSIBILITY MODEL FOR MICRO AND SMALL ENTERPRISES IN OBTAINING UMK CAPITAL FINANCING

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**Submission date:** 24-Sep-2021 10:23AM (UTC+0700)

**Submission ID:** 1656154955

**File name:** 3\_Jurnal\_internasional\_Any\_Yasrizal\_dkk\_2020.pdf (201.12K)

**Word count:** 3460

**Character count:** 19146

PalArch's Journal of Archaeology  
of Egypt / Egyptology

**ACCESSIBILITY MODEL FOR MICRO AND SMALL  
ENTERPRISES IN OBTAINING UMK CAPITAL FINANCING  
FROM FINANCIAL INSTITUTIONS IN ACEH PROVINCE,  
INDONESIA**

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**Any Meilani, Yasrizal, RiniFebrianti, Ety Puji Lestari, ACCESSIBILITY MODEL FOR MICRO AND SMALL ENTERPRISES IN OBTAINING UMK CAPITAL FINANCING FROM FINANCIAL INSTITUTIONS IN ACEH PROVINCE, INDONESIA, -Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(7),ISSN 1567-214x**

**ABSTRACT**

In the international economy, <sup>13</sup> small and medium-sized enterprises ( MSMEs) play an important role. Micro and small entrepreneurs still dominate Aceh's economic sector. KUR aims to improve and expand bank services to active MSEs, increase the competitive capacity of MSEs, encourage economic growth and labor absorption, and alleviate poverty. The data analysis model in this study is In Aceh Province, in the binary logit model multiple regression analysis method, the number of SMEs studied was 110. Research results show that company characteristics, financial characteristics, collateral requirements, and Small Business Support Service have a major impact on access to financial institutions, while ownership features are not relevant. Another factor in the inaccessibility of SMEs to financial institutions is that they are mostly influenced by those SME owners who only increase their funding resources. Some UKM owners' understanding of Islamic law and usury often affect access to conventional financial institutions.

**Keywords:** Financial Accessibility, Accessibility Model for MSMEs, company characteristics, financial characteristics and collateral requirements

**INTRODUCTION**

Micro and small businesses also dominate the Aceh economic market. Micro-enterprises are economically efficient operations carried out by an individual with Rp annual sales requirements for a business organization. 300,000,000 (2008 Law No. 20). Microbusinesses also face funding difficulties because they do not necessarily have enough financial resources to increase the size of

the investment and operating costs and assets used as leverage to pursue corporate loans. Micro companies are a category of marginal forms of the company with low capital levels and access to loans (Stein, Ardic, & Hommes, 2013). The number of these companies in Aceh amounted to 422,479 or 98,97% of total non-farmers. This company also provides over one million (1,061,307) or around 90,53 percent of the total non-farm workforce. When the crisis struck Indonesia between 1997 and 1998, micro and small enterprises proved strong when other major enterprises failed.

Various efforts to make small and micro-enterprises the economy's driving force still face many challenges linked to the nature of its revenue. The company aims to raise sales with general characteristics, utilizing technology, a family-owned business (Abraham & Schmukler, 2017).

Micro and small companies, which are the majority of Indonesian business units, have a national credit share of just about one-sixth (Syamsulbahri, 2018). However, in recent years, KUR's presence has increased this share of federal loans by one-fifth (Ickhsan, Anggraini, Haryono, Sahir, & Rohminatin, 2018). The small proportion is because access to banks is not easy. Banks must have strict prudential policies to preserve financial stability (Okello Candiya Bongomin, Mpeera Ntayi, Munene, & Akol Malinga, 2017). Furthermore, MSEs still lack details on corporate finance loans. These factors help to limit MSEs' access to bank loans (leiwakabessy & lahallo, 2019).

Financing from investment financial institutions (Brown & Lee, 2019) funds more increasingly growing SMEs. The digital world's ongoing development stimulates the creation of non-banking financial institutions capable of making online loan services faster than banking, without collateral (Gomber, Koch, & Siering, 2017). However, MSEs are facing very high interest rates as a barrier to accessing credit (Osano & Languitane, 2015). Moreover, the new method of finance has started to lead to the framework of financial technology (fintech) (Xiang, Zhang, & Worthington, 2018) (Nemoto & Koreen, 2019). Fintech is no longer a conduit in channeling its funding, but directly to the borrower. This framework will remain a standard in the future as delivery is considered easier (I. Lee & Shin, 2018). KUR aims to develop and extend banking services to generate MSEs, growing MSEs' productivity, promoting economic growth and labor absorption, and alleviating poverty (Rini & Aristanto, 2019).

## 2. Literature review

(Beck & Demirguc-Kunt, 2006) Financial and institutional creation of small and medium-sized enterprises help mitigate small and medium-sized enterprises' growth constraints and improve their access to external finance. Even in the absence of well-developed institutions such as credit information exchange systems and more competitive banking structures, advanced finance tools such as leasing and factoring might promote greater financing access.

(N. Lee, Sameen, & Cowling, 2015) reported that microenterprises' restricted access to financial institutions is due to systemic difficulties restricting financial access to creative enterprises. Secondly, the cyclical issue of the financial crisis and its effects on non-innovative businesses is relatively serious.

(Thakur & Contractor, 2010) suggests that, while they prefer not to borrow from it for different purposes, individuals or households are said to have access to such credit sources. A study of the credit accessibility factors is carried out by separating MSEs that have access to credit from MSEs which do not. Accessibility of capital resources informal financial institutions, both banks, and non-bank financial institutions, is emphasized here. The UMK actors are entrepreneurs of small and micro-enterprises

(Diana, 2019) Cooperative members have three times greater access to capital from formal financial institutions than non-cooperative firms. MSEs with a corporate development plan are about twice as likely to access formal financial institutions as other companies without a development plan. The figures indicate that male and under-school managers work in rural areas for more than five years and have a greater chance of receiving credit from traditional banks.

(Syamsulbahri, 2018) BMT's Sharia micro-financing will lift MSME profit by 6.21% of average IDR 79.12 million profit per annum to IDR 84.03 million. Based on the findings of the multi-linear regression of OLS, Sharia BMT finance affects dramatically and positively shifts in earnings.

## METHOD

**Location and Time of Research** This research was conducted in Aceh Province, the type of data collection was a case study on 57 SMEs in Banda Aceh and 53 SMEs in Aceh Barat randomly. This location was chosen because it is a location that is dominated by micro, small and medium-sized processing business actors, Banda Aceh as an urban area and the provincial center, while West Aceh is a rural area.

**Logit model binary multiple regression analysis methods**

Accessibility of SMEs with financial institutions as the dependent variable and the independent variable is qualitative. The appropriate regression model with the dependent variable (Y) is qualitative or binary/dichotomous is a regression model with a qualitative response or known as a probability model. The model used in this study is logit, where the predicted values of Y and x lie between 0 and 1. The general form of the logit model can be formulated as follows (Buis, 2010)

Where:

$L_i$  = dependent variable

$X$  = Independent variable, which is used as an explanatory

$b_0$  = Intercept, the point of intersection of the regression line with the vertical axis

$b_1, b_2, b_3$  = Slope, the slope of the regression line that shows the direction of motion of  $L_i$ .

This logit process produces a probability depending on the observed variables, i.e.,  $X_1, X_2$ , etc. The coefficients  $b_1, b_2$  etc. increase these variables. Estimating this model aims to find the best value for each coefficient. If a variable's coefficient is positive, it means that the lower the variable's value is related to the higher the probability of  $Y=0$ ; in other words, the higher the variable's value means the higher the  $Y=1$  probability. The model used in this research is as follows:

$$ALK = b_0 + b_1 FRC + b_2 FIC + b_3 OC + b_4 CR + b_5 SBS + e$$

ALK = Access to Financial Institutions

FRC = Firm Characteristic

FIC = financial characteristic

OC = owner characteristic

CR = collateral requirement

SBS = Small Business Support Service

## RESULTS AND DISCUSSION

This research is a preliminary study; the data were taken in the district of West Aceh as many as 53 UKM and 57 UKM in Banda Aceh, there is 64 percent of UKM owners are men, with the mode value of high school graduate education level (SMA / equivalent) amounting to ( 54 percent), higher education graduates amounted to 34 percent. The median length of the standing of UKM is over seven years (43 percent) of respondents Participation in this research is generally not very reliable in taking credit because only 43 percent of respondents have access to financial institutions.

### Analysis of Regression Results

To analyze the factors that affect the accessibility of SMEs with financial institutions in Aceh province, a binary logit model multiple regression analysis is used; the regression results are obtained from the binary logit method as presented in the following Figure

Table 1. Regression <sup>5</sup> Results of the Binary Logit Method

Variable	Coefficient	Std. Error	z-Statistic	Prob.
<b>C</b>	-9.441849	2.674611	-3.530176	0.0004
COLATERAL_REQUIREMENT	0.929437	0.562896	1.651170	0.0987
FINANCIAL_CHARACTERISTIC	2.342922	0.888976	2.635529	0.0084
FIRM_CHARACTERISTIC	1.768066	0.929091	1.903006	0.0570
OWNER_CHARACTERISTIC	1.696819	1.234211	1.374821	0.1692
SMALL_BUSINESS_SUPPORT_SERVICE	1.687103	0.730688	2.308924	0.0209
<sup>4</sup> McFadden R-squared	0.676970	<sup>6</sup> Mean dependent var	0.218182	
SD dependent var	0.414902	SE of regression	0.239083	
Akaike info criterion	0.448012	Sum squared resid	5.944694	
Schwarz criterion	0.595311	Log-likelihood	-18.64066	
Hannan-Quinn criteria.	0.507757	Deviance	37.28132	
Restr. deviance	115.4114	Restr. log likelihood	-57.70568	
LR statistic	78.13004	Avg. log likelihood	-0.169461	
Prob (LR statistic)	0.000000			
<sup>5</sup> Obs with Dep = 0	86	Total obs	110	
Obs with Dep = 1	24			

Source: 2020 research data processed.

Know whether the research results according to the multiple regression model it is necessary to do the testing. There are three criteria tests needed, namely the economic criteria test, the statistical criteria test, and the econometric criteria test by testing the classical regression assumptions (for the logit model, the normality test and heteroscedasticity test are not carried out)

#### Statistical Criteria Test.

Testing the statistical characteristics consists of testing the regression coefficient individually, testing the regression coefficient, and testing the regression model's feasibility. Individual influence testing is done to estimate the effect of each independent variable on the dependent variable. With  $\alpha$

(level of significance) = 5% and 10%, if the probability (prob.) > 0.05, or > 0.10, the independent variable has no effect. Conversely, if the probability (prob.) ≤ 0.05 or ≤ 0.10, then the independent variable affects. The results of the individual effect testing for each variable are presented in the following table:

Table 2. Results of Testing By Individuals

Variable	Coefficient	z-Statistic	Prob.	Conclusion
C	-7,723,530	-	0.0004	Significant
Collateral_requirement	1,081,512	2,662,291	0.0987	Significant
Financial_characteristic	0.970571	1,693,298	0.0084	Significant
Firm_characteristic	0.562420	1,047,105	0.0570	Significant
Owner_characteristic	1.955189	2,659,219	0.1692	Not significant
Small_business_support_service	1.491452	2,881,213	0.0209	Significant

Source : Regression Results of the Binary Logit Method for SME Access and Financial Institutions are processed

The above table shows that independent variable variables with a financial characteristic probability value of 0.0084 and small business support services with a probability value of 0.0209 have major effects on SMEs' access to the liver alpha level of 0.05, or 5%, while collateral criteria with a value probability of 0.0987 and firm characteristic variables with probability Owner independent variable with probability value 0.1692 is not significant at various levels.

The joint effect test is performed to assess the effect of independent variables on dependent variable. If model > 0.05 probability (LR stat) does not influence the independent variables together. Conversely, if the model's probability (LR stat) is 0.05, the independent variables are jointly influential. The logit model regression results show the model's probability value (LR stat) is 0.000000, which means less than 0.05. This means that the five independent variables, namely collateral characteristics, financial characteristics, company characteristic owner characteristics, and small business support service, have a major impact on variable SME access to financial institutions. Table 3. Results of Testing In Together

Model	df	LR Statistic	Probability
Logit	5	80,21192	0.000000

Source : Regression Results of the Binary Logit Method for SME Access and Financial Institutions are processed

Based on the logit model regression, it is known that the Mcfadden R-squared value is 0.676970, that the ability of the independent variable to explain the dependent variable is 67.697 percent.

the prediction results <sup>1</sup> can be seen in the expectation prediction :

Table 4. Expectation prediction table

	<sup>2</sup> Estimated Equation			Constant Probability		
	Dep = 0	Dep = 1	Total	Dep = 0	Dep = 1	Total
P (Dep = 1)						
<= C	83	4	87	86	24	110
P (Dep = 1)>						
C	<sup>3</sup> 3	20	23	0	0	0
Total	86	24	110	86	24	110
Correct	83	20	103	86	0	86
% Correct	96.51	83.33	93.64	100.00	0.00	78.18
% Incorrect	3.49	16.67	6.36	0.00	100.00	21.82
Total Gain *	-3.49	83.33	15.45			
Percent Gain						
**	NA	83.33	70.83			

  

	<sup>3</sup> Estimated Equation			Constant Probability		
	Dep = 0	Dep = 1	Total	Dep = 0	Dep = 1	Total
E (# of Dep = 0)	80.19	5.65	85.85	67.24	18.76	86.00
E (# of Dep = 1)	5.81	18.35	24.15	18.76	5.24	24.00
Total	86.00	24.00	110.00	86.00	24.00	110.00
Correct	80.19	18.35	98.54	67.24	5.24	72.47
% Correct	93.25	76.44	89.58	78.18	21.82	65.88
% Incorrect	6.75	23.56	10.42	21.82	78.18	34.12
Total Gain *	15.07	54.62	23.70			
Percent Gain						
**	69.06	69.87	69.46			

Source : Regression Results of the Binary Logit Method for SME Access and Financial Institutions are processed

The table above shows that this model can correctly predict as many as 103 of 110 UKM objects with an error of 7 times <sup>1</sup> so that Count R Squared is 103: 110 or equal to 96.51 percent, which means that the ability of the independent

variable to explain the dependent variable is 96.51 percent so that this model is feasible to use

Discussion of Results

SMEs' accessibility with financial institutions is strongly influenced by the collateral requirement, financial characteristic firm characteristics, owner characteristics, and small business support service variables. Based on the results of the logit model regression analysis, the estimation of the equation model in this study can be described as follows :

Table 5. Odds Ratio

Variable	Coefficient	Odds Ratio
C	-7, 723530	
Colateral_requirment	1 , 081512	2,955115
Financial_characteristic	0 , 970571	2,64107
Firm_characteristic	0 , 562420	1.755538
Owner_characteristic	1 , 955189	7,073988
Small_business_support_service	1 , 491452	4,447733

Source: Results of Regression Methods of Binary Logit access of SMEs premises n Institute of Financial processed

Table 5 above explains the results of the estimated odds ratio for SMEs' access to financial institutions. The analysis results show that the collateral requirement odds ratio value is 2.955 from the variable regression coefficient of 1.081512, indicating that every increase in collateral requirement one meal, the probability of SMEs' access to financial institutions increases 2.955 times.

Conclusions

Access of SMEs to financial institutions is a major problem faced by business units when starting a business and when the business is operational. Identifying the problems faced by SMEs is the main objective of this study. Access to finance for SMEs is strongly influenced by the characteristics of strong ownership to access financial institutions. Small business support services, collateral requirements, financial characteristics, and firm characteristics significantly impact SMEs' access to financial institutions. Some SME owners who only maximize their capital for financing also affect access to financial institutions. Understanding some UKM owners about Islamic law and the concept of usury also affects access to conventional financial institutions.

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