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MODEL OF ACCESS TO CAPITAL FOR SMALL AND MICRO ENTERPRISES: AN OVERVIEW OF COMPANY CHARACTERISTICS

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Abstract – Small and Micro Enterprises (SMEs) are strong businesses that are resilient even in a state of economic crisis or the COVID-19 pandemic. In fact, SMEs have the potential of developing into big businesses, although it requires a large production capacity and huge capital. Nevertheless, SMEs continually have many challenges of capital, human resources, information, and access to financial institutions and banks. Therefore, this study aims to determine the model of access to capital from SMEs in Karawang, West Java from the company's characteristics. The sample used was 109 from SMEs owners in Karawang Regency, and was analyzed using logistic regression. The results showed total assets, business development plans, type of industry, business location, and gender do not affect the probability of access to capital. However, there was an effect of financial reports and credit guarantees on the possibility of access to capital of the SMEs.

Keywords : small and micro enterprises, access to capital, company characteristics

1 INTRODUCTION

Small and Micro Enterprises (SMEs) are at the forefront of national economic development and are evenly distributed throughout Indonesia, both in cities and rural areas. The number reached 30.2 million or 97.2% of the total businesses in Indonesia [1]. In fact, the government appreciates SMEs, and proven that in every local government, there is an agency which takes care of its existence and development. This appreciation is regarded because SMEs absorb quite a lot of labor and are tested during times of economic crisis.

The forms of appreciation for these businesses vary, one of which is capital assistance, both from the government and the private sector. The government provides help by developing real sector businesses through Bank Indonesia policies for the availability of capital for SMEs, although it is currently unfavorable.

In developing their businesses, SMEs need to increase their production capacity which requires a lot of capital. Consequently, lack of capital, low ability, as well as

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knowledge of human resources (HR) in managing the business have made SMEs unable to keep up with changing consumer tastes, yet not globally competitive [2]. Therefore, the problem of accessing capital in financial institutions is a major problem for SMEs [3]. This is reinforced by the results of the 2020 economic census, that 68% of SMEs have constraints on capital due to difficulty accessing financial institutions and banks. Both of these institutions have strict prudential policies to maintain good financial stability.

This study aims to analyze the capital accessibility model of Small and Micro Enterprises (SMEs) towards financial institutions in Karawang Regency. The model analysis used a logistic regression method based on a questionnaire distributed to selected SME entrepreneurs. The results are expected to provide maximum contribution to the development of SMEs in order to survive and compete in the COVID-19 Pandemic.

2 THEORETICAL FRAMEWORK

2.1 Capital Structure Theory

According to Thomas E Copeland (1996), capital structure is the use of internal and external funds in the form of long-term debt, preferred stock, and shared capital that are permanent in nature [4]. As stated by Gitman (2005), it is a combined description of loans and equity for company finances [5]. Capital structure theory includes theories of Traditional Approaches, Trade-Off, Modigliani & Miller (1958), Pecking Order-Myers (1984), and Agency-Jensen & Meckling (1976). Traditionally, the capital structure needs to fluctuate in order to obtain optimal firm value. In their theory, Modigliani & Miller included and do not include taxes, hence there is a statement that debt can save taxes because interest on debt can be a tax deduction [6]. Similar to the Trade-off Theory, when a company has high profitability, it will reduce its taxes by increasing its debt ratio, which is different from the Pecking Order Theory, where companies with high-profit rates actually have a smaller debt ratio [6]–[8]. Meanwhile, in Agency Theory, debt is considered a way to reduce free cash flow agency conflicts.

Capital structure is the most important to be understood by actors in order to keep the business running well, otherwise, it will be a problem and have direct effect on the company's financial position. The relationship between the business sector and debt management has been widely affirmed by the results of empirical studies, one of which confirms that financial strategy variables, including debt management, are the main keys in company operations.

The concept of accessibility to certain credit sources states that individuals or households are known to have access to certain sources of credit, as long as they are able to borrow from that source, although for various reasons they choose not to borrow. Analysis of the factors affecting credit accessibility was carried out by distinguishing SME actors who have and do not have access to credit.

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Accessibility to capital resources is emphasized more on bank and non-bank financial institutions. The SME actors referred to are entrepreneurs who have small and micro scale businesses. Also, small and micro-scale enterprises (SMEs) are productive businesses owned by individuals or entities with a total workforce of one to nineteen people.

In Indonesia, SMEs are important part of the national economic system because they play a role in accelerating equitable growth through the mission of providing businesses and employment opportunities, increasing public income and foreign exchange earnings, as well as strengthening the structure of the national industry. The definition of SMEs as regulated in Indonesian Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSME) states that, a micro enterprise is a productive business owned by an individual or entity that has an asset value of at most IDR 50 million or with the largest annual sales proceeds of IDR 300 million. Meanwhile, small-sized enterprise is a productive economic business carried out by an individual or an entity that is not a subsidiary or branch company with an asset value of over IDR 50 million to a maximum of IDR 500 million or has annual sales of over IDR 300 million to a maximum of IDR 2,5 billion. In addition, medium-sized enterprises are productive economic enterprises with a net worth of more than IDR 500 million to a maximum of IDR 10 billion or have annual sales of IDR 2.5 to IDR 50 billion.

3 RESEARCH METHOD

3.1 Logistic Regression

Logistic regression is a statistical analysis carried out to predict the probability of the dependent variable with a nominal scale of two categories or a dummy. Also, the dependent variable is a dummy, allowing logistic regression not to get the normality and heteroscedasticity test. The model analysis used SPSS 22 application (Statistical Package for Social Science 22 edition).

The logistic regression model is formulated as follows:

$$Log\left[\frac{p}{1-p}\right] = {}_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Description:

p = probability of accessing capital

$1\text{-}P$ = probability of not accessing capital

$\frac{P}{1-P}$ = Od Ratio

X_1 = Financial Report, category: 1 = No Financial Report, 0 = Financial Report

X_2 = Credit Guarantee, category: 1 = No Guarantee, 0 = Guarantee

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X_3 = Total Assets, category: 1 = Small (Under 300 millions), 0 = Large (Above 300 millions)

X_4 = Business Development Plan, category: 1 = No Business Plan, 0 = Business Plan

X_5 = Type of Industry, category: 1 = Manufacturing, 0 = Trade / Service

X_6 = Business location, category: 1 = village, 0 = city

β = the coefficient for each of the independent variables

ε = error

3.2 Analysis Method

Model Significance

The model's significance test is to determine the effect of independent variables on the dependent (overall). This was carried out using the Likelihood Ratio Test.

H0 = There is no influence of financial statement variables, credit guarantees, total assets, business development plans, type of industry, business location, and gender on access to capital, if $\beta 1 = \beta 2 = ... = \beta p = 0$.

H1 = There is an influence, at least, one independent variable on access to capital, when at least βj is not equal to zero (0). For j = 1,2, ... p.

The statistical test used G2 by looking at the chi-square distribution with degrees of freedom p. The hypothesis is rejected when the p-value $<\alpha$. This showed the independent variables simultaneously influence the dependent.

4 RESULTS AND DISCUSSION

4.1 Model Significance

Table 1

Hosmer and Lemeshow Test (X_1, X_2, X_3, X_4, X_5, X_6, X_7)

Step	Chi-square	df	Sig.
1	10,421	8	,237

Classification in the model given that H0: The model fits; H1: The model does not fit

H0 is rejected when $p < \alpha$, and according to the output results in Table 1, the value of X2 = 10,421. Therefore, because the p value = 0.237 is greater than the significance level $\alpha = 0.05$ ($p > 0.05$), it can be concluded that the model is fit. This showed financial reporting, credit guarantees, total assets, business development plans, type

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of industry, business location, and gender have significant contribution to the odds ratio for access to capital, as the logistics model is fit. Therefore, it can be concluded that this model is suitable to predict the size of opportunities for access to capital for financial institutions or banks.

Table 2

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	121,300	7	,000
	Block	121,300	7	,000
	Model	121,300	7	,000

According to the output results in Table 2, the chi-square value obtained was 121,300 with degrees of freedom = 7, p-value = 0.000. Therefore, because the value of p = 0.000 <α = 0.05, it can be concluded that at least one independent variable has a significant effect on the dependent, access to capital.

Table 3

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	29,576[a]	,671	,896

According to the output results in Table 3, the value of G is 29.576. Also, the Nagelkerke R Square value of 0.896 showed the independent variable was able to explain 89.6% of the diversity/variation of access to capital while the remaining 10.4% was explained by other factors

Table 4

Equation Variables

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	X1	6,607	1,561	17,914	1	,000	740,023	34,719	15773,420

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	X2	4,352	1,301	11,193	1	,001	77,647	6,065	994,047
	X3	1,926	1,159	2,763	1	,096	6,862	,708	66,485
	X4	,152	1,143	,018	1	,894	1,165	,124	10,942
	X5	-,600	1,181	,258	1	,611	,549	,054	5,553
	X6	,954	1,057	,815	1	,367	2,597	,327	20,623
	Constant	-8,919	2,355	14,345	1	,000	,000		

In Table 4, the financial statement variable has a significance value of 0.000 <α = 0.005, therefore H0 was rejected. This showed financial reporting has an impact on access to capital for SMEs. Furthermore, Credit guarantees have a significance value of 0.001 <α = 0.05, which also showed it has an effect on access to capital.

The total asset variable has a significance value of 0.096> α = 0.05, which showed it has no effect on access to capital. Also, business development plan has a significance value of 0.894> α = 0.05, which showed it has no effect on access to capital. Furthermore, the type of industry has a greater significance value, namely, 0.611> α = 0.05, which showed there is no effect on access to capital. In addition, business location has a significance value of 0.367> α = 0.05, which showed it has no effect on access to capital.

4.2 Odds Ratio

In the last decade, there have been various publications of empirical literature related to the analysis of credit determinants of SMEs (de Aghion and Morduch, 2005). Regarding studies that analyzed the determinants of credit [9]–[14], various models (binary dependent variable and data panels) were used to analyze the determinants of SMEs access to credit. By using this analysis model, bank behavior can be identified by determining the allocation of credit to SME groups.

In Table 4, the financial statement variables with odds ratio obtained a value of 740,023 which showed financial reports are important and differentiating factor in access to capital for SMEs in Karawang. In fact, SMEs with financial reports have more potential to gain access to capital of 740,023 times than those without financial statements. Besides, the statements serve as a basis for making economic decisions in managing a business, including market development, pricing, and others. This is because it becomes a guideline in monitoring and planning future businesses, as well as submitting capital to creditors [15].

The credit guarantee has odds ratio of 77.647 which showed the access to capital of SMEs with credit guarantees is 77,647 times greater than those without credit guarantees. Furthermore, the credit guarantee variable differentiates it from SMEs that do not have credit guarantees. Mahjabeen (2010) models the optimal portfolio allocation for microcredit institutions and commercial banks, and assumed that banks or micro-credit institutions have the goal of optimizing the allocation of managed portfolios and using the Constant Elasticity of Substitution (CES) Utility Function to understand the behavior of microfinance institutions and banks in allocation [16]. The results of theoretical analysis in this model showed a profit-maximizing bank will not offer SMEs credit due to high cost of credit and the risk of micro-customers. When a bank extends micro credit, it will be organized specifically for lending to the SMEs group, hence a special rationalization is carried out for that group.

In Table 4, total assets have odds ratio of 6,862. This showed SMEs with total assets above IDR 300,000,000 have a 6,862 times greater opportunity than those with less assets. Moreover, SMEs with large assets and turnover have an influence on access to capital, and business assets are one of the crucial factors related to working capital. Azriani (2014) and Wedelia et al. (2018) stated that SMEs with larger assets will have greater opportunities for access to formal sources of financing. The results of these analysis are in accordance with the data in Karawang Regency [17], [18].

The odds ratio for SMEs with business development plans is 1.165 times the possibility of accessing capital from banks and other financial institutions. Meanwhile, SMEs engaged in manufacturing have an odds ratio of 0.549 times more likely to get access to capital than in the trade and services sector. Furthermore, making a good business plan is important to convince capital owners. Good management and financial reports will also become additional value, hence investors are interested in providing financial assistance. Consequently, actors need to manage their business more professionally and fulfill the legality aspect in order to make it easier for the government and financial institutions to carry out various empowerment efforts and capital assistance [19].

Micro entrepreneurs who have business locations in the city have a chance of accessing 2,597 times higher than those in the village. The choice of strategic location actually helps the bank to guarantee whether they are capable business actors to pay for capital loans or not. In fact, location theory from Agust Losch in Kasmir (2007), affirmed that sales location greatly affects the consumers [20]. Hence, the farther the location, the more consumers' reluctance to buy due to transportation costs. Therefore, it was suggested that the production location should be situated close to the market. These results are supported by Firmila Wamaliya's (2014) that location determines the eligibility of a person to be granted a loan where it affects the sustainability of the business [21].

5 CONCLUSION

According to the results above, it can be concluded that financial reports, credit guarantees, total assets, business development plans, type of business, location are very important factors for SMEs in their efforts to gain the trust of formal financial

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institutions. In addition, the characteristics of entrepreneurs and businesses are also a supporting factor in obtaining credit.

Most SME actors with low education and entrepreneurial spirit need to be given training related to business motivation (entrepreneurial spirit) and managerial abilities (marketing, production, human resources, finance) in technical aspects. Hence, the role of government is very important to continually promote the participation and progress of SMEs in Karawang Regency. Furthermore, guidance to provide assistance and counseling in the form of making financial reports, as well as initial business assistance or increasing credit allocation needs to be developed with the aim of SMEs having an integrated business development plan. Therefore, it is expected that all government efforts will develop globally competitive SMEs.

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