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Determinants of Micro and Small Business Resilience in Indonesia

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Abstract

This study aims to identify the factors that determine the resilience of Micro and Small Enterprises in Indonesia between 2012 and 2021. Estimates use the Ordinary Least Square (OLS) method for the variables of economic growth, credit business, and perceptions of corruption to estimate the effect of resilience on MSEs. The estimation results show that the variable economic growth has an effect on the resilience of MSEs, while the variables business credit and perceptions of corruption have no effect.

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INTRODUCTION

In general, the concept of resilience is defined as the ability to remain strong in its existence and able to recover for sustainable growth. Sarafino and Smith (2014) provide a definition of resilience as the ability to assess negative events, bounce back from difficulties, and restore strength and enthusiasm. This definition means that in any condition, every entity has the strength to survive and succeed in recovering its condition to return to existing as an entity as before.

In a macroeconomic context, the concept of economic resilience refers to the ability of an economy to respond to turmoil that results in economic shocks *and* recover after the shock. Hallegatte (2014) argues that economic resilience is the economy's ability to overcome, recover and reconstruct to minimize aggregate consumption losses. This definition contains two meanings of resilience, namely instant resilience and dynamic resilience. Instant resilience is the ability to minimize impacts as a result of shocks, while dynamic resilience is the ability to carry out reconstruction and recovery.

In a business context, business resilience refers to understanding the ability to continue to exist in the industry and seeing opportunities to be able to compete with other business entities amidst the natural challenges of business competition. According to Saad, Hagelaar, van der Velde, and Omta (2021) business resilience is the adaptability of a business entity to disruption, the ability to create positive growth for the entity, and the ability to capture business opportunities in a challenging business environment. Increasing the capacity of business entities to proactively identify future challenges and disruptions is also very important, including developing capabilities to a higher level in a growing and increasingly complex business environment.

Osakwe, Verter, Bečvářová, and Chovancová (2015) conducted a study of SMEs based on a macroeconomic perspective. In this study, SMEs are seen as a vehicle for job creation, wealth creation, economic growth and development in countries that have a good investment climate. The study explores the influence of unemployment rate, economic growth and credit variables on SME growth in the Czech Republic during the period 1995–2013. The study results show that unemployment tends to slow down SME growth, there is a positive relationship between economic growth and SME growth, and there is an insignificant relationship between credit and SME growth.

Kisaka and Mwewa (2014) conducted a study on the influence of microcredit, micro savings, and training on the growth of SMEs in Machakos County, Kenya. The findings show that microcredit, micro savings and training play a positive role in the growth of SMEs. Increasing access to microcredit will improve SMEs' cash constraints by increasing solvency and liquidity, access to credit will also provide fresh funds needed to finance business expansion and working capital, and enable SMEs to access large microloans to increase working capital and sales revenue. However, the findings seem to be different compared to the study by Osakwe et al. (2015) in terms of the influence of microcredit.

Abdissa, Ayalew, Dunay, and Bálint Illés (2022) conducted research on the determinants of sustainable growth of SMEs in developing countries with the case of Ethiopia. The background of the study is based on the important role of SMEs in domestic employment and inclusive GDP in developing countries such as Ethiopia. The study results show that crucial problems such as the corona virus and political uncertainty in Ethiopia which allow corruption are very detrimental to the growth of SMEs.

Nyarku and Oduro's (2017) research on the impact of corruption and bureaucratic behavior on the growth of SMEs in Kumasi Metropolis, Ghana was motivated by the fact that SMEs are considered to be the seeds of entrepreneurship and innovation but often experience pressures that hinder potential growth. The research results show that if there is a 1% increase in corruption in the SME sector, there will be a decrease in sales and employment growth by 36.12%, and if there is a 1% increase in bureaucracy it will cause a decrease in SME growth by 28.76%.

The existence of Micro, Small and Medium Enterprises (MSMEs) in Indonesia is regulated in Law no. 20 of 2008 concerning Micro, Small and Medium Enterprises which replaces Law no. 9 of 1995 concerning Small Businesses . According to Law no. 20 of 2008 concerning Micro, Small and Medium Enterprises, the definition of each type of business is differentiated according to ownership status, net worth and annual sales results. Table 1 shows the criteria for MSMEs in Indonesia.

Table 1. Criteria for MSME in Indonesia According to Law no. 20 of 2008

No.	Type of business	Ownership status	Total Net Worth (excluding land and buildings where the business is located)	Annual Sales Results
1.	Micro business	Productive businesses owned by individuals and/or individual business entities	Maximum IDR 50,000,000.00	Maximum IDR 300,000,000.00
2.	Small business	Productive economic businesses are carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part, either directly or indirectly, of medium or large businesses.	IDR 50,000,000.00 - IDR 500,000,000.00	IDR 300,000,000.00 - IDR 2,500,000,000.00
3.	Medium Business	productive economic enterprise carried out by an individual or business entity that is not a subsidiary or branch of a company that is owned, controlled or part of, either directly or indirectly, a Small Business or Large Business.	IDR 500,000,000.00 - IDR 10,000,000,000.00	IDR 2,500,000,000.00 - IDR 50,000,000,000.00

Source : UU no. 20 of 2008

Based on these criteria, productive economic efforts are limited by the daily turnover achieved by the entity. Micro businesses only have annual sales of no more than IDR 300,000,000.00 per year, so their daily sales turnover is no more than IDR 830,000.00 (eight hundred and thirty thousand). Small businesses that are classified as activities that generate sales of IDR 300,000,000.00 to IDR 2,500,000,000.00 have a daily turnover of between IDR 830,000.00 to IDR 6,944,000.00. Meanwhile, medium-sized businesses that have annual sales of more than IDR 2,500,000,000.00 (two billion five hundred million rupiah) up to a maximum of IDR 50,000,000,000.00 have a daily turnover of between IDR 6,945,000.00 to IDR 138,889. ,000.00.

Table 2. Track Record of Micro and Small Business Development in Indonesia, 2018 - 2021

	2018	2019	2020	2021	Unit
Number of Businesses	4,264,047	4,380,176	4,209,817	4,162,688	Units
Total manpower	9,434,258	9,575,446	9,647,542	9,109,297	Person
Business Output Value	520,968,984	501,447,432	482,735,296	501,825,494	Million Rupiah
Market price	217,811,518	220,574,045	228,956,642	208,334,538	Million Rupiah
Business Input Value	303,157,466	280,873,387	253,778,653	293,490,955	Million Rupiah
Production Growth	5.66	5.8	-17.63	0.42	Percent

Source: Central Statistics Agency, several years

In general, the condition of micro and small businesses (UMK) in Indonesia from 2018 to 2021 in table 2 has experienced fluctuations. The number of businesses in 2020 experienced a decline, although there was positive progress in 2019. This was most likely influenced by the impact of the Covid-19 pandemic since March 2020. The number of workers in MSEs in 2021 also experienced the same conditions, namely a decrease in labor participation of minus 1.15% since 2018. The value of business output in 2021 also experienced negative progress as indicated by a decline in production of minus 1.23% compared to 2018. The market price of MSE products in 2021 also experienced a decline as seen from the negative growth rate of added value of minus 1.46% compared to year 2018. Input use in 2021 was also affected by the negative progress in the number of MSEs which can be seen from the negative growth in input value of minus 1.06% compared to 2018 but better than 2020.

METHOD

This study uses secondary data originating from publications by the Central Bureau of Statistics and *Transparency International* . The annual statistical data used for analysis is data on MSE growth, GDP growth, business scale credit and perceptions of corruption.

Basically, economic growth is the development of the final results of all economic activities carried out by economic entities in a country over a certain period of time or what is often referred to as GDP. According to BPS (2021) GDP is the amount of added value produced by all business units in a particular country, or the total value of final goods and services produced by all economic units. GDP is differentiated on the basis of current prices and on the basis of constant prices. GDP at current prices reflects the additional value of goods and services calculated based on current prices each year. GDP at constant prices reflects the additional value added of goods and services calculated on the basis of base year prices. The economic growth calculation used in this study uses a constant price basis. Economic growth is allegedly able to influence the resilience of MSEs in Indonesia. The study of Osakwe et al. (2015) found that there is a positive influence of economic growth on SMES growth in the Czech Republic. Thus the hypothesis is structured as follows:

H_1 : Economic growth influences the resilience of MSEs in Indonesia.

One of the efforts to increase business resilience is providing business credit to MSMEs. According to BPS data (2021), MSME credit at commercial banks is differentiated based on business field, type of use and business scale. Based on business field, it is divided into Agriculture, Hunting and Forestry, Fisheries, Mining and Quarrying, Processing Industry, Electricity, gas and water, Construction, Wholesale and Retail Trade, Provision of accommodation and food and drink, Transportation, warehousing and communications, Financial Intermediaries, Real Estate , Rental Business and Corporate Services, Government Administration, Defense and Mandatory Social Security, Education Services, Health Services and Social Activities, Community Services, Social Culture, Entertainment and other Personal Services, Individual Services Serving Households, International Agencies and Extra International Agencies Others, activities whose boundaries are not yet clear, and not other business fields. According to the type of use, MSME business credit is differentiated on the basis of working capital and investment, while according to business scale, MSME business credit is differentiated on the basis of micro, small and medium enterprises. Kisaka and Mwewa's (2014) study shows that there is a positive influence of microcredit on SMES growth. Thus the hypothesis is structured as follows:

H_2 : Business credit influences the resilience of MSEs in Indonesia.

Corruption is seen as the behavior of misusing non-owned finances aimed at personal gain. According to Smith (1971) corruption is basically the use of public resources for private gain which includes not only conventional monetary but also political and administrative power. Corruption will hinder the growth of MSEs because it increases the high cost economy through petty bribery and requests for kickbacks by public officials that are usually paid as part of a company's normal operations such as expediting the clearance of goods through customs, to pass inspections, to meet operational requirements, or to obtain various licenses and documents (Rune, 2011) . Transparency International conducts a survey every year to see progress in eradicating corruption in the world through a corruption perception index broken down by country . The use of corruption perception index data is expected to be able to answer the influence of corruption in Indonesia on MSE growth.

Research by Nyarku and Oduro (2017) found that there was a negative influence on the existence of corruption in the Kumasi Metropolis, Ghana. Thus the hypothesis is structured as follows:

H_3 : Corruption influences the resilience of MSEs in Indonesia.

This research uses econometric techniques. To identify factors that have symptoms of influencing the resilience of MSEs in Indonesia during the 2012-2020 period, the Ordinary Least Square (OLS) method was used. The estimation model used,

$$gUKM = \beta_0 + \beta_1 gPDB + \beta_2 lncrUMK + \beta_3 kor$$

where, gUKMdescribes the resilience of MSEs as proxied by Annual Production Growth Y on Y; gPDBdescribes economic growth as proxied by the growth of Gross Domestic Product at constant 2010 prices; lncrUMKdescribes the provision of credit to SMEs as proxied by the Micro, Small and Medium Enterprises (UMKM) Credit Position at Commercial Banks according to the Micro and Small Enterprise Scale; and kordescribes the perception of corruption as proxied by the Corruption Perception Index.

RESULTS AND DISCUSSION

This study aims to find factors that influence the existence of micro and small businesses during the Covid-19 pandemic. The analytical method for predicting the influence of macroeconomic factors and perceptions of corruption on the existence of micro and small businesses uses OLS. The first stage of analysis is to test the classical assumptions.

According to Table 3, the estimation results for the normality test using the Jarque-Bera statistical test show that the calculated statistic is 1.25 and obtains a probability of 0.54. Based on the normality requirement that data is normally distributed when the probability value is > 0.05, then with a probability value of 0.54 it can be concluded that the data is normally distributed.

Table 3. Classic assumption test

Test	Results		Decision
Jarque-Bera normality	JB Stat 1.250405	Prob. 0.535153	Normally distributed
Multicollinearity	gGDP	1.421727	There are no multicollinearity problems
	crUMK	5.383001	There are no multicollinearity problems
	CPI	4.531200	There are no multicollinearity problems
Autocorrelation Breusch-Godfrey Serial Correlation LM Test	Prob. Chi-Square (2) 0.6881		There is no autocorrelation problem

Source: Eviews 12 output

Multicollinearity is a condition where there is a high correlation between each independent variable in a regression model. Detect whether or not there is multicollinearity in a model using *the Variance -Inflating Factor* (VIF) which shows how the variance of the estimator is inflated by the presence of multicollinearity (Gujarati & Porter, 2009) . By looking at the VIF value, if VIF is >10, then the data we are testing has multicollinearity, whereas if VIF <10, then the data being tested does not have multicollinearity. According to the estimation results, it is known that the VIF values for gPDB, crUMK, and CPI are 1.42, 5.38, and 4.53 respectively, less than 10 (<10), so it can be concluded that there is no multicollinearity problem in the model.

Autocorrelation is a problem that occurs when in a linear regression model there is a correlation between the estimated disturbances for the current period and the estimated disturbances for the previous period. If this happens, then the OLS estimator does not fulfill the BLUE principle, resulting in t, F, and $\chi 2$ possibly being invalid (Gujarati & Porter, 2009) . To detect symptoms of autocorrelation in the model, one way is to use the Breusch-Godfrey Serial Correlation

LM Test. The limit for determining whether there is an autocorrelation problem is if the prob value. Chi-Square (2) > 0.05 means there is no autocorrelation problem, whereas if the prob . Chi-Square (2) < 0.05 means there is an autocorrelation problem. According to table 3, it is confirmed that there is no autocorrelation problem due to the prob value. Chi-Square > 0.05, namely 0.6881 > 0.05.

Table 4. OLS Estimation Result
Dependent Variable: gUMK
Method: Least Squares
Sample: 2012 2021

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-11.18705	33.06385	-0.338347	0.7466
gGDP	3.143170	0.277334	11.33353	0.0000
lncrUMK	-1.040337	3.472187	-0.299620	0.7746
CPI	0.382078	0.435902	0.876523	0.4145
R-squared	0.967666	Adjusted R-squared		0.951500
F-statistic	59.85532	Prob(F-statistic)		0.000073

Source: Eviews 12 output

Table 4 presents the OLS estimation results consisting of the t test, F test, and coefficient of determination (R^2). In general, the regression model is able to explain 96% of the influence of macroeconomic factors and corruption on MSE resilience, while the remaining 4% is explained by other factors outside the model. Apart from that, the influence of macroeconomic factors and corruption on the existence of MSE resilience is declared reliable as indicated by the F statistical probability level of 0.00, far below the tolerance limit of 0.05.

The economic growth variable (gGDP) has a positive effect on the resilience of MSEs (gUMK) with a probability level of 0.00, much lower than the limit of 0.05. This shows that every 1% increase in economic growth will encourage MSE resilience by 3.14%. These results are in accordance with the research results of Osakwe et al. (2015) who found a strong influence of economic growth on SMES growth with a 1% degree of economic growth that would stimulate SMES growth of 1.05%.

Micro and small business credit disbursement (lncrUMK) has the opposite characteristic to MSE resilience (gUMK) but has no effect because it only has a probability of 0.77, far above the significance limit of 0.05. This finding is different from the findings of Kisaka and Mwewa (2014) who found that access to microcredit improves SME cash, to finance business expansion, and to increase working capital and sales revenue. However, these findings are the same as the findings in Osakwe et al.'s research. (2015) which shows that there is an inverse relationship between domestic credit provided by the financial sector and SME growth in the Czech Republic but it is not statistically significant.

Perception of corruption (CPI) has no effect on MSE resilience (gUMK) because it is not statistically significant. This is indicated by the probability of 0.4145 which is far above 0.05. The results of the perception that corruption has no effect on MSE resilience are different from the research findings of Nyarku and Oduro (2017) that there is a negative correlation between corruption and SMES growth, which shows that an increase in corruption of 1% causes a decrease in SMES growth of 36.12%.

CONCLUSION AND RECOMMENDATION

Micro and Small Enterprises (UMK) are economic activities that can become a vehicle for economic development for developing countries (Mamo, 2020) . In addition, these businesses play an important role in domestic employment and inclusive GDP in developing countries (Abdissa et al., 2022) . However, the development of MSEs often experiences obstacles either from internal or external forces. In Indonesia, the resilience of MSEs has been hit by the Covid-19 pandemic since early 2020. Data shows that the number of MSEs has fallen from 4,380,176 companies in 2019 to 4,209,817 in 2020 and continues to decline in 2021 to 4,162,688 companies. This is also shown by

the fairly large correction in MSE production growth to minus 17.63 in 2020. However, it is indicated that the resilience of MSEs in Indonesia has not only been hit by the pandemic but by other factors such as macroeconomic factors and corruption.

This study produced several findings related to the factors driving MSE resilience in Indonesia. Based on data from 2012 to 2021, this study concludes that the resilience of MSEs in Indonesia is largely influenced by economic growth, while the provision of business scale credit and perceptions of corruption have no influence. This shows that economic growth is still the engine that drives growth in the social economic sector, so that policies that encourage MSE resilience through sectors other than economic growth. Apart from that, it is necessary to strengthen the role of business scale credit in encouraging the resilience of MSEs through the need for a new approach that increases business scale inclusiveness to ensure that MSEs can recover from the blow caused by the COVID-19 pandemic.

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