



Analysis of Factors Affecting the Development of the Number of Umkm in Indonesia

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Abstract

The role of the MSME sector is very strategic for the development of the national economy. MSMEs as the anchor of the national economy have proven to be able to survive the economic crisis that occurred in 1997. However, in its sustainability, the role of MSMEs continues to be overshadowed by difficulties in competing due to various factors that influence it. Therefore, this study aims to analyze the factors that influence the development of the number of MSMEs in Indonesia. The research variables used in this study are inflation variables, interest rates, the exchange rate of the rupiah against the dollar and the number of MSMEs in Indonesia. The type of data used in this study is quantitative data in the form of monthly with a time range of January 2016 to December 2020. The data sources are obtained from BPS, Ministry of Cooperatives and MSMEs. The writing method uses multiple regression in the form of logarithms. The results of the analysis conclude that inflation and interest rate variables have no significant effect on the development of the number of MSMEs in Indonesia. This is due to the fact that people's purchasing power is still weak due to economic shocks originating from the health sector that hit almost all countries in the world, including Indonesia. The rupiah exchange rate variable has a significant effect on the development of the number of MSMEs in Indonesia. the majority of MSME actors in Indonesia, most of the inputs used for production come from abroad, so that exchange rate pressures have an impact on the number of MSME businesses in Indonesia.

Keywords: *Inflation; Interest Rates; Rupiah Exchange Rate; Number of Msmes and Multiple Regression*

Introduction

Micro, small and medium enterprises (MSMEs) are a group of businesses that play a very significant role in the Indonesian economy, with the number of micro-entrepreneurs estimated to be mostly engaged in the informal sector. This indicates a symptom of the informalization of the economy. Workers who are not successfully absorbed by the formal sector will switch to the informal sector.

For the Indonesian economy, the role of MSMEs is very important where MSMEs are able to absorb around 97% of all national workers and their contribution to Gross Domestic Product (GDP) is around 57% (Bank Indonesia, 2018 in Rossa, 2019). MSMEs are proven not to be affected by the crisis that occurred in 1997 – 1998 and are still able to stand strong. However, the classic problem of financing

and business development is still attached to MSMEs. The government noted that of the 56.4 million MSMEs throughout Indonesia, only about 30% were able to access financing, about 76.1% received credit from banks and 23.9% accessed from non-banks, including savings and loan businesses such as cooperatives. In other words, around 60% - 70% of all MSME sectors do not have access to financing through banking. Bank Indonesia (BI) has issued BI Regulation No. 14/22/PBI/2012 dated December 21, 2012 regarding the provision of credit by commercial banks and technical assistance in developing MSMEs which requires banks to allocate credit to MSMEs starting in 2015, amounting to 5% in 2016, 10% in 2017 and 20% by the end year 2018.

The weakening of the exchange rate of the rupiah against the dollar, almost reaching Rp. 15,000, - currently has a fairly large impact on the Indonesian economy, especially for MSME players who use imported raw materials so that production raw materials are increasingly expensive. The condition of the weakening of the rupiah has a direct or indirect impact, especially on the condition of profit margins. The weakening of the rupiah will also increase inflation, especially for food, so that it will reduce people's purchasing power.

The decline in people's purchasing power is faced with higher production costs for producers of imported raw materials, which will reduce profits and income. This condition will also be felt by MSMEs whose production activities do not use imported raw materials. Even though production costs do not increase, MSME actors are unable to control the decline in consumer purchasing power that occurs due to rising prices for other manufactured goods. If this condition is left unchecked or not resolved properly, it is possible that many MSMEs will go out of business or stop production so that it will have an impact on economic growth and risk increasing unemployment. According to (Ministry of Cooperatives and MSMEs, 2018) to date, there has been an average decline in turnover of 15% for MSMEs based on imported raw materials.

The government must be able to identify the obstacles faced by MSME actors today. Several things that often become obstacles for MSMEs are related to mastery of technology and market access as well as capital where capital problems are always the main problem faced by MSMEs in Indonesia. In this condition the government should focus on facilitating access to loans evenly and continue to provide business loan facilities with low interest rates to maintain the performance and productivity of MSMEs in the midst of the current currency depreciation, such as through the People's Business Credit (KUR). Actually there is a gap that can be exploited by MSMEs in conditions like this by strengthening product competitiveness, increasing productivity and exporting their products. People's Business Credit).

The weakening of the value of the rupiah still raises concerns, especially the impact on foreign debt that must be paid. The position of foreign exchange reserves in January 2019 was 120.1 billion US dollars, which is lower than December 2018 of 120.7 billion US dollars. Bank Indonesia stated that the position of foreign exchange reserves was quite high and was equivalent to financing 6.7 months of imports or 6.5 months of imports and servicing of government foreign debt and was above the international adequacy standard of around 3 months of imports. Bank Indonesia views foreign exchange reserves as capable of supporting external sector resilience, maintaining macroeconomic and financial system stability. Bank Indonesia assessed that the decline in foreign exchange reserves in January 2019 was mainly influenced by the payment of the government's foreign debt. Going forward, BI views foreign exchange reserves as adequate, supported by confidence in the stability and good prospects of the domestic economy as well as export performance that remains positive.

At the end of December 2018, Indonesia's foreign exchange reserves reached 120.7 billion US dollars. This figure is higher than the end of November 2018 of US\$ 117.2 billion. After previously Indonesia's foreign exchange reserves in September 2018 had eroded to 114.8 billion US dollars, down to 3.1 billion US dollars when compared to August 2018 at 117.9 billion US dollars. Even though the government has issued dual currency foreign currency Government Securities (SBN) worth 1 billion US

dollars and 1 billion euros, this has not been able to compensate for the decline in foreign exchange reserves for rupiah intervention carried out by the monetary authorities. Currently, BI still sees the weakening of the rupiah as only temporary so that BI has not made any adjustments to its interest rate policy. Based on the description of the phenomenon above, it can be seen that the fluctuations in inflation, interest rates and the development of MSMEs in Indonesia can be seen in table 1. following.

Table 1 Developments in inflation, BI rate, rupiah exchange rate and the number of MSMEs in Indonesia in 2016 – 2020

Year	Inflation (%)	BI rate (%)	Rupiah exchange rate	Number of SMEs
2016	3,02	6,4	13.473	61.651.177
2017	3,61	4,7	13.555	62.922.617
2018	3,13	4,5	14.390	64.194.057
2019	2,72	5,2	13.866	65.465.497
2020	1,68	4,2	14.050	66.543.654

Source: BPS in figures, BI and the Ministry of Cooperatives and UMKM

Literature Review

Micro, Small and Medium Enterprises (MSMEs) have various definitions with the formulation of small businesses in various names, for example (1) the Central Bureau of Statistics (BPS) uses the criteria for the number of people employed; (2) The Ministry of Industry, uses financial criteria such as capital investment for machinery and equipment and investment per worker; (3) Bank Indonesia, using financial criteria, such as wealth and turnover; (4) The Ministry of Trade uses the maximum active capital criteria for trading businesses; (5) KADIN (Chamber of Commerce and Industry) uses capital criteria, which are adjusted to economic sectors. (Martin Huseini, et al, 2003: 167-8).

From the various meanings of MSMEs, it can be interpreted that there is concern from the Government, DPR, Government Institutions, and Banking in empowering MSMEs, although from different perspectives. However, on the other hand, it causes an overlap in the implementation of various programs and inefficiencies in the use of funds. Hetifah Syaifuddin, (in Krisnamurti, 2003) reveals "who" is meant by SMEs are as follows:

1. UMKM are people's businesses whose capital value is relatively small, slow to expand, cannot withstand dumping and capital is often used for household needs.
2. In terms of personnel, MSMEs are businesses that are often carried out independently (self-employment), do not require high skills, have weak business and academic backgrounds and lack insight into external developments.
3. From a management perspective, MSMEs are businesses that are vulnerable to competitors, passive and without integration in planning, organizing, implementing and controlling.
4. In terms of limited and often out of date facilities and technology, it is easy to outperform competitors and experience

Inflation is the tendency to increase the prices of goods in general and continuously (Samuelson, 2004) which means price increases that occur due to seasonal factors. used to calculate the inflation rate. Changes in index numbers from time to time are expressed in percentage figures, namely the magnitude

of the inflation rate in that period. The development of an increase in the price of a number of goods/services in general over a period of time is called the inflation rate which is expressed in percentage figures.

Inflation can occur at mild, moderate, severe and hyperinflation levels. Mild inflation occurs when price increases are below 10%, moderate inflation is between 10% – 30%, heavy inflation is between 30% - 100% per year and hyperinflation or uncontrolled inflation occurs when price increases are above 100% a year. The inflation rate is generally relative and there is no general standard. Broadly speaking, there are 3 theories of inflation (Samuelson, 2004), namely as follows:

1. Quantity Theory The principle says that inflation arises due to the increase in the money supply and people's predictions that prices will rise are not caused by other factors. How to overcome inflation by eliminating (reducing the money supply).
2. Keynes theory According to this theory inflation occurs because people have a demand that exceeds the amount of money available and people want to live beyond the limits of their economic capacity so that the price of goods in general rises. If this continues, during that time the inflation process will take place. The people referred to here are: 1) The government which prints new money to cover the state budget deficit, 2) Private entrepreneurs who add new investments with credit from banks, 3) Workers / labor unions who demand an increase in wages that exceeds the increase in productivity.
3. Structuralist Theory Structuralist theory (long-term inflation theory) highlights that the cause of inflation comes from the economic structure, especially the supply of food and export goods. The increase in the production of goods is not commensurate with the growth in demand, resulting in an increase in food prices and a scarcity of foreign exchange. Furthermore, the increase in the price of goods evenly causes inflation that occurs can be overcome by reducing the money supply but must be overcome by increasing productivity and developing the food and export goods sector.

Inflation is a serious problem for the stability of a country's economy. If inflation is not immediately controlled, it will lead to an increase in the price of goods, a decrease in the value of the currency, an increase in unemployment and a decline in people's welfare. The cause of inflation is not only related to the money supply (Nofirin, 1992) on the other hand the amount of goods and services available in the community is also the cause of inflation. In this case, policies are needed to overcome inflation, especially those related to monetary policy, fiscal policy and non-monetary policy, namely policies that are not related to government finances and the money supply. This method is an alternative to overcome inflation, which can be done in the following ways: 1) Encouraging entrepreneurs to increase their production output, 2) Suppressing the wage level, 3) The government monitors prices and sets the maximum price, 4) The government carries out direct distribution, 5) Overcome hyperinflation by cutting currency values.

Interest is a measure of the price of resources used by debtors that must be paid to creditors. Interest rate means the income earned by people who give their excess money to be used temporarily by people who need it and use the money to cover the shortfall (Dornbusch, 1994). The interest rate is the cost of borrowing or the price paid for the borrowed funds expressed as a percentage per year (Nopirin, 1992). The interest rate is one of the monetary indicators that have an impact on several economic activities as follows: 1) The interest rate will affect the decision to invest which will ultimately affect the level of economic growth, 2) The interest rate will affect the decision of capital owners to invest in real assets. or financial assets, 3) The interest rate will affect the business continuity of banks and other financial institutions, 4) The interest rate will affect the value of the money supply. Interest contained in conventional banks can be separated into deposit interest and loan interest where this interest is the main income and expense for the bank. Credit interest is the main component of bank income. The distribution of funds in the form of credit by banks occupies the largest portion of bank assets. Meanwhile, on the

liability side, liabilities originating from third party funds are the largest source of funds. Costs derived from interest on deposits of third party funds are the largest costs borne by the bank. Loan interest and deposit interest have a very close relationship. If deposit interest rates rise, the increase in deposit interest rates will have an effect on increasing loan interest rates. Deposit and credit interest will affect each other in the banking industry. In this study, the interest rate used is the BI rate, which is the reference for banks to set interest rates.

According to Mankiw (2007), the currency exchange rate between two countries is the price of the currency used by residents of that country to trade with each other. Abhimanyu (2004) states that the currency exchange rate is the price of a currency relative to the currencies of other countries, and because this exchange rate includes two currencies, the equilibrium point is determined by the supply and demand of the two currencies. Fabozzi and Franco (1996:724) an exchange rate is defined as the amount of one currency that can be exchanged per unit of another currency, or the price of one currency in terms of another currency. So it can be concluded that the currency exchange rate is the price of the currency value of a country against another country, and is carried out for exchange transactions used in conducting trade transactions, the exchange rate between two countries where the exchange rate is determined by the supply and demand of the two countries. currency.

The currency of a country can change substantially due to changes in economic, socio-political conditions. These changes can experience appreciation if the domestic currency against foreign currencies has increased, and depreciated when the domestic currency against foreign currencies has decreased. The decrease or increase in currency values is also carried out and intervened by the government, in this case the Central Bank to adjust the actual conditions in the market. The decrease or increase in government intervention is known as devaluation and revaluation. Devaluation is said to be when a downward adjustment or in other words a decrease in the exchange rate is carried out by the Central Bank, and vice versa it is said to be a revaluation when the Central Bank makes an upward adjustment or in other words increases the exchange rate.

According to Mankiw (2007) in the economic system, currency exchange rates can be divided into two types, namely: Nominal currency exchange rates Nominal currency exchange rates are the comparison of the relative prices of currencies between two countries. The exchange rate between these two countries applied in the foreign exchange market (forex) is the nominal currency exchange rate. Real currency exchange rates Real currency exchange rates are a comparison of the relative prices of goods in two countries. In other words, the real currency exchange rate states the price level at which we can trade goods from one country with goods from other countries. The real currency exchange rate is determined by the nominal exchange rate and the comparison of domestic and foreign price levels.

According to Mankiw (2007) the formula to get the real currency exchange rate is as follows; So it can be concluded that the real currency exchange rate depends on the price of domestic goods and the exchange rate of the domestic currency against foreign currencies. c. The Madura Currency Exchange Rate System (2008), based on the policy of controlling the exchange rate of a country, the exchange rate system in general can be classified into four categories, including: a) Fixed exchange rate system rate system) In this case the government can maintain a policy that keeps the value of its currency at a stable level. In this fixed exchange rate system, the currency of a country is fixed permanently with a certain foreign currency. In other words, the currency exchange rate system is still under intervention by the government. b) Free floating exchange rate system In this case, the exchange rate of a country's currency is determined from the demand and supply of its currency in the international currency exchange market. This exchange rate system is defined as the result of a balance that continuously changes according to changes in supply and demand in the foreign exchange (forex) market. c) A controlled floating exchange rate system (managed floating exchange rate system) In this case, the currency exchange rate system controlled floating applies to conditions where the exchange rate is determined based on supply and demand, but there is government intervention in this case is the Central Bank which from time to time

intervenes to stabilize the value of the currency. d) Pegged exchange rate system In this case, the domestic currency is fixed with a foreign currency whose value tends to be more stable, for example the US Dollar.

Research Methods

The research design uses ex post facto (Sekaran, 2015) by examining a fact that has occurred in the field in the form of a descriptive quantitative approach consisting of five scientific components as follows: theory, hypothesis, observation, empirical generalization and acceptance or rejection of hypotheses. The characteristics of quantitative research are as follows: phenomena are described numerically, data analysis in the form of descriptive and inferential statistics, specific hypotheses, sample size and statistical validity accurately reflect the population. The stages of descriptive quantitative research are as follows: 1) background exposure, 2) research problem formulation, 3) explaining research objectives, 4) explaining the theory used in research, 5) explaining research methods (Sekaran, 2015). Data collection is carried out to obtain the information needed to achieve the research objectives in the hypothesis as a temporary answer to the research problem formulation and needs to be tested empirically. Secondary data in the form of monthly data for 2016 – 2020 was obtained through Bank Indonesia, the Central Statistics Agency. Data analysis uses multiple linear regression in the form of logarithms, namely regression that has more than one independent variable (Juanda, 2012) with the model:

$$\text{LogY} = a + \log\beta_1X_1 + \log\beta_2X_2 + \log\beta_3X_3 + e$$

Where:

- Y = SMEs,
- X1 = inflation,
- X2 = interest rate ,
- a = constant,
- β = variable regression coefficient X1, X2 and e = error term.

The Coefficient of Determination (KD) measures how much the model's ability to explain the variation of the independent variables but has a weakness, namely the bias towards the number of independent variables in the regression model where each addition of one independent variable and the number of observations in the model will increase the value of R² even though the intended value has no significant effect. to the dependent variable. To reduce this bias, Adjusted R² is used where KD has been corrected by entering the number of variables and the sample size used. The Adjusted R² value may fluctuate due to the addition of new variables in the model. In the empirical test, if the Adjusted R² value is negative, the adjusted R² value is considered zero. Mathematically if the value of R² = 1 then Adjusted R² = 1 while if the value of R² = 0 then Adjusted R² = (1 - k) / (n - k). If k > 1 then Adjusted R² is negative (Suliyanto, 2011).

The t-test aims to partially test the significance of the regression coefficient by comparing t-count and t-table at the real level = 0.05 (Suliyanto, 2011). The t test has a significant effect if t count t table or error probability < 5% (P < 0.05) and vice versa has no significant effect if t count < t table or error probability > 5% (P > 0.05).

The F test aims to test the significance of the regression coefficient simultaneously by comparing the calculated F and F table at the real level = 0.05 (Suliyanto, 2011). The F test has a significant effect if F count F table or error probability < 5% (P < 0.05) and vice versa has no significant effect if F count < F table or error probability > 5% (P > 0.05).

Data Analysis and Discussion

The results of processing MSME data using software eviews can be seen in table 1 below:

Table 2 Results of Eviews . Data Processing

Dependent Variable: LOGUMKM

Method: Least Squares

Date: 12/10/21 Time: 09:12

Sample: 2016M01 2020M12

Included observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.14367	0.807944	13.79263	0.0000
LOGINFLATION	-0.001179	0.002526	-0.466613	0.6426
FLOWER LOGIST	-0.027759	0.015376	-1.805337	0.0764
LOGKURSRUPIAH	0.722180	0.084213	8.575636	0.0000
R-squared	0.609570	Mean dependent var		17.98830
Adjusted R-squared	0.588654	S.D. dependent var		0.029436
S.E. of regression	0.018879	Akaike info criterion		-5.037187
Sum squared resid	0.019959	Schwarz criterion		-4.897564
Log likelihood	155.1156	F-statistic		29.14387
Durbin-Watson stat	0.782864	Prob(F-statistic)		0.000000

Sumber: Olah data Eviews

Based on the data processing table above, it is obtained that the multiple linear regression equation $Y = 11.14367 - 0.001179X_1 - 0.027759X_2 + 0.722180X_3 + e$ with the following interpretation:

$a = 11,14367$ meaning that if inflation, interest rates and exchange rates are zero percent, the number of MSMEs is 11,14367 percent.

$\beta_1 = -0.001179$ means that if inflation increases by one percent, the number of MSMEs decreases by 0.001179 percent with the assumption that interest rates and the rupiah exchange rate against the dollar are ceteris paribus.

$B_2 = -0.027759$ means that if interest rates increase by one percent, the number of MSMEs decreases by 0.027759 percent assuming inflation and the rupiah exchange rate against the dollar is ceteris paribus.

$B_3 = 0.001179$ means that if the rupiah exchange rate against the dollar increases by one percent, the number of MSMEs increases by 0.001179 percent assuming inflation and interest rates are ceteris paribus.

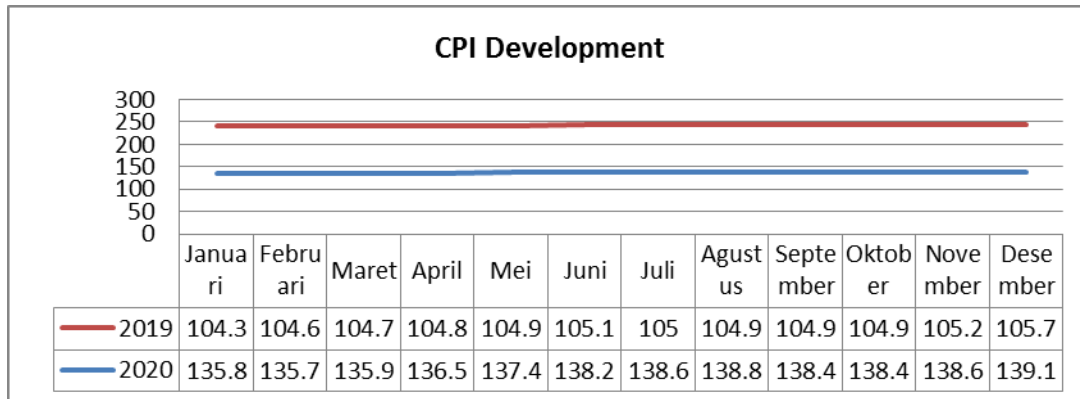
Based on the eviews data processing table above, it shows that the inflation and interest rate variables have a negative but not significant effect on the number of MSMEs in Indonesia. This can be seen by comparing tcount with ttable. If tcount > ttable, inflation and interest rates have a significant effect on the number of MSMEs in Indonesia. On the other hand, if tcount < ttable, inflation and interest rates have no significant effect on the number of MSMEs in Indonesia. Based on the table above, the value of t-count inflation = -0.466613 and t-count of interest rates = -1.805337 < ttable = 1.96 shows that inflation and interest rates variables have no significant effect on the number of MSMEs in Indonesia.

The variable exchange rate of the rupiah against the dollar has a positive and significant effect on the number of MSMEs in Indonesia. It can be seen based on the value of tcount of the rupiah exchange rate = $8.575636 > t_{table} = 1.96$.

Simultaneous test on the data processing table above shows that inflation, interest rates and the exchange rate of the rupiah against the dollar together have a significant effect on the number of MSMEs in Indonesia ($29,14387 > 0.000$).

Variations in the formation of the number of MSMEs in the research model are explained by inflation variables, interest rates and the rupiah exchange rate of 58.86 percent while the remaining 41.14 percent is explained by other factors not included in the research model such as investment, economic growth and others.

Based on the results of data analysis, it can be seen that inflation and interest rates have no significant effect on the number of MSMEs in Indonesia. It can be seen from the value of tcount for inflation and interest rates less than t_{table} (thit inflation = -0.466613 and thit. Interest rate = $-1.805337 < t_{table} = 1.96$). The insignificant effect of inflation and interest rates on the number of MSMEs in Indonesia is due to the weak purchasing power of consumers in Indonesia as a result of shocks from the health sector which have an impact on disrupting economic activity that has hit almost the whole world, including Indonesia. Covid 19 has disrupted Indonesia's economic activities, resulting in many small and medium-sized businesses, especially in the tourism sector, which have largely closed their businesses. With many business actors closing their businesses, it can encourage an increase in the number of unemployed which in turn will reduce the purchasing power of consumers. This is also supported by the development of the CPI in Indonesia as an indicator of measuring people's purchasing power which has tended to decline since 2020. The data are shown in the graph below.



BPS Source

The variable exchange rate of the rupiah against the dollar has a positive and significant effect on the development of the number of MSMEs in Indonesia. This can be seen from the value of t-count the rupiah against the dollar is more than t_{table} (thit = $8.575636 > t_{table} = 1.96$). The significance of the rupiah exchange rate on the development of MSMEs in Indonesia is due to the fact that most MSME actors in Indonesia, most of the inputs used for production come from abroad, so that exchange rate pressures have an impact on the number of MSME businesses in Indonesia.

Conclusion

Inflation and interest rate variables have no significant effect on the development of the number of MSMEs in Indonesia. This is due to the fact that people's purchasing power is still weak due to

economic shocks originating from the health sector that hit almost all countries in the world, including Indonesia.

The rupiah exchange rate has a significant effect on the development of the number of MSMEs in Indonesia. This is because most MSME actors in Indonesia, most of the inputs used for production come from abroad, so that exchange rate pressures have an impact on the number of MSME businesses in Indonesia.

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