DOI <https://doi.org/10.18551/rjoas.2018-09.08>

**EFFECT OF NON-PERFORMING LOAN, BI RATE, CAPITAL ADEQUACY RATIO,
OPERATING EXPENSES OPERATING INCOME AND RETURN ON ASSETS
ON THE CREDIT AMOUNT OF MSME: A CASE STUDY OF SOE
BANKING COMPANIES**

Pamungkas Adhis Darussalam*, Wardoyo

Graduate Program, University of Gunadarma, Jakarta, Indonesia

*E-mail: adhis.darussalam@gmail.com

ORCID: 0000-0002-8673-1239

ABSTRACT

This research was conducted with the aim to better understand whether there are variables and how much the variables of Non-Performing Loan (NPL), BI Rate, Capital Adequacy Ratio (CAR), Operating Expenses Operating Income (OEI), and Return on Assets (ROA) affect the credit amount of MSME distributed by SOE banking companies during the research period of 2011-2014. The data used in this research were secondary data. The population used in this research was the financial statements of SOE banking companies that belonged to as many as 4 banks consisting of PT Bank Negara Indonesia Tbk, PT Bank Rakyat Indonesia Tbk, PT Bank Mandiri Tbk, and PT Bank Tabungan Negara Tbk within the research period of 4 years since 2011-2014. The research sampling was carried out by using purposive sampling method. The methods used were classical assumption test, multiple linear regression analysis, and hypothesis testing. The findings of this research indicated that NPL and OEI partially had significant effect on the credit amount of MSME. Meanwhile, BI Rate, CAR, and ROA partially had no significant effect on the credit amount of MSME. Moreover, simultaneously, ROA, EPS, Inflation Rate and Interest Rate had significant effect on the credit amount of MSME.

KEY WORDS

Non-performing loan, capital adequacy ratio, operating expenses, return on asset, credit.

Based on Law No. 10 of 1998 concerning “amendment to Law No. 7 of 1992 concerning banking”, financial institutions of bank consist of commercial banks and rural banks. Commercial and rural banks are allowed to carry out their business activities in the conventional form or based on Sharia principles (profit sharing). The main use of the bank itself is conducting the activity of raising funds from the community and distributing it back to the community. Financial institutions, especially banks, play a strategic role in driving the economy of a country.

MSME credit is loans distributed by banks to the debtors of micro, small, and medium enterprises that meet the definition and criteria of micro, small and medium enterprises. These definitions and criteria are regulated in Law No. 20 of 2008 concerning MSME. MSME credit is one of the government’s policies in advancing the national economy that is run through banks. The objective of distributing the credit to MSME is to encourage people to be more independent and productive.

MSME (Micro, Small, and Medium Enterprises) is a business segment that utilizes resources from the plantation, trade, livestock, and agriculture sectors. Manpower recruitment is one of the advantages so that it can help the equity process which is part of the economic development of a country (Anggraini and Nasution, 2013). The difficulty of obtaining bank credit is caused by various factors, one of which is the lack of collateral provided by the MSME which makes the banks refuse to give credit (Domeher, 2012).

NPL (Non-Performing Loan) is the provision of problem loans for customers who are late to pay or failed to pay (default). If the NPL ratio of a bank is high, the bank must quickly find a way out so that the health of the bank is not disrupted. The impact of a high NPL ratio is a decrease in distributing the credit rate in the next period. Meanwhile, if the NPL

percentage ratio of a bank gets smaller, it can be ascertained that the performance and function of the bank are working well.

BI Rate also affects the decrease or increase in credit distribution by these banks. If the inflation rate is high and cannot be controlled, then the bank efforts in raising funds from the community will be disrupted. It will make the distribution of credit to become stagnant. Credit disbursed is an important source of income for banks. According to Waljjanah and Wulandari (2012), in a high inflation, the government overcomes the increase in money circulation by raising the benchmark interest rate (BI Rate) which will have an impact on the increase in deposit interest rates and followed by loan interest rates.

According to Triasdini and Denny (2010), there are some effects of CAR (Capital Adequacy Ratio), NPL (Non-Performing Loans), and ROA (Return on Assets) on working capital loans. Meanwhile, according to Wardhani (2011) there is an effect of bank interest rate spread, CAR, and NPL on credit distribution. Capital Adequacy Ratio (CAR), according to Pratama (2010), is a capital adequacy ratio that shows bank's ability to provide funds for bank development. It is the higher the CAR, the higher the available funds to be used as business development funds and risk anticipation funds.

Return on Assets (ROA), according to Yuwono and Meiranto (2012), is the ratio used to measure the ability of a bank's management to gain profits or benefits thoroughly. Banks that have high profitability will get good trust from the community, so that people will tend to deposit their funds to the bank. In other words, the only purpose of a company's assets is to generate income and certainly generate profits or benefits for the company itself. This ROA or Return on Assets ratio can help the management and investors to see how well a company is able to manage its assets to become a profit.

The efficiency level of banking operational performance is also important in which the operational level is often measured by using operating expenses on operating income or commonly abbreviated as OEOI. This ratio will compare operating expenses and operating income. If this ratio is getting smaller, it means that the bank is more efficient in spending expenses to earn income.

Based on Table 1 below, it can be seen the development of NPL, BI Rate, CAR, OEOI, and ROA in the MSME segment from 2011-2014:

Table 1 – The Development of NPL, BI Rate, CAR, OEOI, and ROA in MSME in 2011-2014 Period

Year	NPL (%)	BI Rate (%)	CAR (%)	OEOI (in IDR billion)	ROA (%)	MSME Credit (in IDR billion)
2011	3.63	6.58	16.05	91.94	3.03	458.2
2012	3.40	5.77	17.43	70.53	3.11	526.4
2013	3.35	6.44	18.13	66.16	3.08	608.8
2014	4.10	7.52	17.08	69.57	3.75	671.7

Source: Indonesian Banking Statistics, processed.

In Table 1, it can be seen that the benchmark interest rate (BI Rate) was 5.77% in 2012 and 6.44% in 2013. MSME credit distribution did not seem to be affected by fluctuating non-performing loans (NPL) or BI Rate in the same period. MSME credit experienced a surge from year to year which did not seem to have been affected by the BI Rate which was proxied by macroeconomics. The BI Rate experienced fluctuations in increases and decreases. Meanwhile, the NPL ratio, from 2011-2014 amounting to less than 5%, had experienced stagnation in 2012-2013.

OEOI, in 2011 to 2013, had experienced a decrease in ratio. If the OEOI ratio gets smaller, it means that the bank is increasingly efficient in spending expenses to get income. The highest CAR amount occurred in 2013. If CAR is higher, it will strengthen the health of a bank in facing the risks. Meanwhile, the overall profit achieved by the bank (ROA) was highest in 2014 although non-performing loans (NPL) in 2014 were also the highest compared to previous years.

Research Problems:

- What is the effect of NPL, BI Rate, CAR, OEOI, and ROA on the total amount of credit that is simultaneously distributed?

- What is the effect of NPL, BI Rate, CAR, OEOI, and ROA on the total amount of credit that is partially distributed?

Research Objectives:

- To determine the effect of NPL, BI Rate, CAR, OEOI, and ROA on MSME Credit distribution simultaneously?
- To determine the effect of NPL, BI Rate, CAR, OEOI, and ROA on MSME Credit distribution partially?

METHODS OF RESEARCH

The type of data used in this research was secondary data in the form of quarterly data in which the research period started from 2011-2014. The data sources were obtained from the official website of the Central Bureau of Statistics, Bank Indonesia, Indonesian Banking Statistics and quarterly financial statements from State-Owned Banks in Indonesia for the 2011-2014 period; i.e. the bank websites which were used as the research objects (www.bankmandiri.co.id, www.bni.co.id, www.bri.co.id, www.btn.co.id).

The populations used in this research were the financial statements of four banks consisting of PT Bank Negara Indonesia Tbk, PT Bank Rakyat Indonesia Tbk, PT Bank Mandiri Tbk, and PT Tabungan Negara Tbk with the research period of 4 years starting from 2011-2014. Research sampling was carried out by using purposive sampling method because the sampling had the criteria: the banks are go-public and state-owned banks listed on the Indonesia Stock Exchange and have complete financial statements during the period of 2011-2014. Thus, the number of observations was 80 which were obtained from 4×20 (multiplication between the number of banks and the period of observation).

The F-test was conducted to determine whether the regression models of independent variables ($X_1, X_2, \dots, X_n$) simultaneously had a significant effect on the dependent variable (Y). The significance in the ANOVA table showed the amount of the probability or significance in the ANOVA calculation. The listed values were used for feasibility test of analysis model in which a number of X variables affect the Y; under consideration that a good probability to be used as a regression model must be < 0.05 . This value can be seen in the Sig column. If Sig value < 0.05 , the analysis model is considered as feasible. If Sig value > 0.05 , the analysis model is considered as not feasible.

The hypotheses for this ANOVA test are:

- If Sig value < 0.05 , H_0 is rejected;
- If Sig value > 0.05 , H_a is accepted.

Figure 1 – Chart of Non-Performing Loans (NPL) Variable and Credit Amount of MSME in SOE Banks

The t-test was conducted to determine whether the regression models of independent variables ($X_1, X_2, \dots, X_n$) partially had a significant effect on the dependent variable (Y). The independent variables can explain the dependent variable in which it can be seen from

each of the independent variables. If the significance value is 0.000 then it is considered to be very significant. Testing with the use of SPSS has the following criteria:

- If the significance value of the research findings is < 0.05 , the correlation between variables is significant;
- If the significance value of the research findings is > 0.05 , the correlation between variables is not significant.

Figure 1 shows that the NPL pattern from January 2011 to December 2011 tended to be in the range of 5%. Based on the provisions of BI Circular Letter No.6/23/DPNP, it was concluded that SOE banks in that period were not healthy. At the same time, MSME credit declined as well. In the following period, the NPL tended to move down in the range of 3% - 4% which slowly increased the credit amount of MSME in SOE banks. Based on chart 3.1, it can be concluded that there is an effect between Non Performing Loans and credit amount of MSME.

Figure 2 – Chart of BI Rate Variable and Credit Amount of MSME in SOE Banks

Chart 2 shows that the BI Rate pattern is quite stable. In the period of February 2012 - May 2013, the benchmark interest rate (BI Rate) was at 5.75% which was smaller than other periods. In September 2013-December 2014 the highest benchmark interest rate from the previous period was 7.25% - 7.75%. In the same period, high interest rates did not affect MSME's credit which tended to increase. MSME actors needed more access to get credit from banks to do business development rather than paying attention to the increase or decrease of the benchmark interest rate (BI Rate).

Figure 3 – Chart of CAR Variable and Credit Amount of MSME in SOE Banks

Figure 3 showed that the CAR pattern is fluctuating but it is still far above the safe limit (minimum 8%). According to Meydianawathi (2006), a high CAR reflects the stable amount of capital and the low risk that is owned by the bank, allowing banks to distribute more credit to the MSME sector. In other words, the correlation of CAR and credit distribution is not unidirectional because the credit amount of MSME tends to increase from year to year. Compared with CAR, at the same time it tends to fluctuate.

Figure 4 – Chart of OEOI Variable and Credit Amount of MSME in SOE Banks

Figure 4 shows that the pattern of OEOI variable tends to be stable. The highest point was in January 2011 amounted to IDR 173%. Then, it slowly moved steadily in the next period in the range of IDR 66% - IDR 96%. According to Kusnandar (2012), operating income is bank income; namely interest income obtained from the placement of funds in the form of credit and other operations. It means that the smaller the OEOI the more efficient operational expenses incurred by the bank. It can be concluded that OEOI affects the credit amount of MSME because when the value of OEOI is small, the credit amount of MSME tends to increase from year to year.

Figure 5 – Chart of ROA Variable and Credit Amount of MSME in SOE Banks

Figure 5 shows that the pattern of ROA variable is quite volatile. It can be concluded that the movement of ROA variable and credit amount of MSME are not in the same direction. Credit amount of MSME tends to increase every year. ROA also has no effect on credit distribution to MSME. According to Suhardi (2003), it may occur with the possibility that the increase in profit is used as a productive asset reserve or other activity and is not prioritized to be re-managed in credit distribution.

RESULTS OF STUDY

According to Sugiyono (2006), F-test is a test tool that aims to determine whether there is a significant effect simultaneously between independent variables consisting of Non-Performing Loans (X1), BI Rate (X2), Capital Adequacy Ratio (X3), OEOI (X4), Return on Assets (X5) and the dependent variable of Credit Amount of MSME (Y). This model is intended to determine whether the independent variables ($X_1, X_2, \dots, X_n$) simultaneously have significant effects on the dependent variable (Y). The basic criteria for decision making are through the following significant probability value:

- If f probability is > 0.05 , then H_0 is accepted and H_a is rejected;
- If f probability is < 0.05 , then H_0 is rejected and H_a is accepted.

The F-test results can be seen in the following table:

Table 2 – Test Results F

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.424	5	.285	28.466	.000 ^b
Residual	.420	42	.010		
Total	1.844	47			

a. Dependent Variable: CREDIT AMOUNT_MSME

b. Predictors: (Constant), ROA, NPL, CAR, BI_RATE, OEOI

Based on the calculation of Analysis of Variance (ANOVA) in the above table, the value of F-count is 28.466 while the value of F-table (at the significance level of 5% with $df_1 = 5$ and $df_2 = 42$) ($F_{(0.05; 5; 42)}$) is 2.44. The F-count value is in the H_a acceptance area or H_0 is rejected because the value of F-count is greater than the value of F-table ($28.466 > 2.44$). It is also reflected in the significance value of 0,000 which is smaller than 0.05. It means that NPL, BI Rate, CAR, OEOI and ROA simultaneously affect Credit Amount of MSME.

Statistical t-test is used to find out to what extent the effect of independent variables individually in explaining the variation of the dependent variable. If the t-value is greater than t-table, it is indicated that there is an effect of the independent variables individually on the dependent variable. If the t-value is smaller than t-table, it is indicated that there is no effect of the independent variables individually on the dependent variable. This statistical t-test can also be performed by looking at the significance of t-value. If the significance of t-value is smaller than 0.05, then it is indicated that there is an influence of independent variables individually on the dependent variable (Ghozali, 2005). The results of the t-test can be seen in the following tables:

Table 3 – Partial Test (T-Test)

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	7.363	1.824			4.037	.000
NPL	.824	.138	.484		5.980	.000
BI_RATE	.103	.056	.142		1.828	.075
CAR	-.082	.302	-.020		-.273	.786
OEOI	-.574	.095	-.518		-6.015	.000
ROA	-.030	.420	-.006		-.071	.944

a. Dependent Variable: MSME_CREDIT

Source: SPSS, processed.

The value of t-table is $t_{(0.05, 41)} = \pm 2.01954$.

- Non-Performing Loan Variable on Credit Amount of MSME:

Based on the test results in table 4.7, the t-value for the NPL variable is $t = 5.980$ with a significance value of $0.00 < 0.05$. Having a significance value below 0.05, it shows that Non

Performing Loans variable has a significant effect on Credit Amount of MSME. It means that Hypothesis 1 is accepted.

- **BI Rate Variable on Credit Amount of MSME:**

Based on the test results in table 4.7, the t-value for the BI Rate variable is $t = 1.828$ with a significance value of $0.075 > 0.05$. Having a significance value above 0.05, it shows that BI Rate variable has no significant effect on Credit Amount of MSME. The result shows that Hypothesis 2 is rejected.

- **Capital Adequacy Ratio Variable on Credit Amount of MSME:**

Based on the test results in table 4.7, the t-value for the Capital Adequacy Ratio variable is $t = -0.273$ with a significance value of $0.786 > 0.05$. Having a significance value above 0.05, it shows that CAR variable has no significant effect on Credit Amount of MSME. It means that Hypothesis 3 is rejected.

- **OEOI Variable on Credit Amount of MSME:**

Based on the test results in table 4.7, the t-value for the interest rate is $t = -6.015$ with a significance value of $0.00 < 0.05$. Having a significance value below 0.05, it shows that OEOI variable has a significant effect on Credit Amount of MSME. It means that Hypothesis 4 is accepted.

- **ROA Variable on Credit Amount of MSME:**

Based on the test results in table 4.7, the t-value for the ROA variable is $t = -0.071$ with a significance value of $0.944 > 0.05$. Having a significance value above 0.05, it shows that ROA variable has no significant effect on Credit Amount of MSME. It means that Hypothesis 5 is rejected.

DISCUSSION OF RESULTS

The Effect of NPL on Credit Amount of MSME. The partial test result (t-test) between the NPL variable and the Credit Amount of MSME variable shows that the value of t-count is 5.980, the regression coefficient is 0.824, and the probability value is 0.00 which is smaller than 0.05. It means that the NPL has a significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the NPL ratio has a significant effect on the credit amount of MSME is accepted.

Thus, the change in NPL causes a significant change in the credit amount of MSME distributed by the SOE banks. The findings of this research supported the research conducted by Nurlestari and Mahfud (2015) showing that NPL has a significant effect on credit distribution of MSME.

It was known that NPL is a ratio used to measure how much the level of non-performing loans must be borne by the creditor; in this case, it is the bank. If there are many delinquents in credit payments by debtors, the bank cannot get back the capital that has been distributed. Thus, it can affect the soundness of the bank and the level of public trust. After the credit is distributed, the bank is required to monitor the MSME actors and the debtor's ability and compliance in fulfilling their obligations. Monitoring is performed so that credit risk can be minimized. The provisions of Bank Indonesia state that banks must maintain their NPLs below 5%. It is in line with Bank Indonesia regulations based on Bank Indonesia Circular Letter No. 6/23/DPNP dated May 31, 2004 concerning NPL.

Debtor capability from the financial side to repay the loan and its interest means without willingness and good will from the debtor. Therefore, if many debtors are in arrears in installments, it will trigger the level of NPL. Government policy can affect the high and low level of bank's NPL. For example, government policy on increasing fuel prices which will make MSME require additional funds taken from profits for the use of BBM in its production activities which will be budgeted to pay debt repayments. Thus, the company will experience difficulties in paying its debts to the bank.

The Effect of BI Rate on Credit Amount of MSME. The partial test result (t-test) between the BI Rate variable and the Credit Amount of MSME variable shows that the value of t-count is 1.828, the regression coefficient is 0.103, and the probability value is 0.075 which is greater than 0.05. It means that the BI Rate has no significant effect on the credit

amount of SOE bank credit. Therefore, the hypothesis which states that the BI Rate has a significant effect on the credit amount of MSME is rejected.

Thus, the change in BI Rate causes no significant change in the credit amount of MSME distributed by the SOE banks. This is in line with research conducted by Satrio and Endang (2017). The decreasing or increasing BI Rate trend does not directly affect the credit amount of MSME. One factor is the lack of collateral provided by MSME which has caused the banks to refuse to provide credit (Domeher, 2012). MSME actors need more access to credit from banks to conduct business development rather than reducing the benchmark interest rate. The next factors that make small and medium enterprises survive from all crises is that MSME does not have foreign debt, MSME is considered as unbankable so it does not have much debt to banks, MSME uses local inputs, and MSME is export oriented.

The Effect of CAR on Credit Amount of MSME. The partial test result (t-test) between the CAR variable and the Credit Amount of MSME variable shows that the value of t-count is -0.273, the regression coefficient is -0.082, and the probability value is 0.786 which is greater than 0.05. It means that CAR has no significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the CAR has a significant effect on the credit amount of MSME is rejected.

Thus, the change in CAR causes no significant change in the credit amount of MSME distributed by the SOE banks. CAR is an indicator of bank's ability to cover its assets as a result of bank losses caused by risky assets. It is the higher the CAR, the better the bank's ability to take into account the risk of any credit/productive assets. If the CAR is high, the bank is able to finance operational activities and make a substantial contribution to profitability. However, banks cannot determine their own CAR value, because the government has required a minimum CAR limit of 8%. Calculation of Capital Adequacy Ratio is based on the principle that every investment that contains risks must be provided with a certain amount of capital for the amount of investment.

The findings of this research are in line with the research conducted by Kusnandar (2012) that CAR does not have a significant effect on credit distribution of MSME. This happens because there is a tendency that a large CAR makes banks have sufficient capital, but the bank has not been able to control it well and profitably. According to Suhardi (2003), one of the biggest bank difficulties and risks is in terms of bank liquidity management. On the other hand, even though banks have the flexibility to expand their share of credit, the CAR ratio is quite high.

The Effect of OEOL on Credit Amount of MSME. The partial test result (t-test) between the OEOL variable and the stock return shows that the value of t-count is -6.015, the regression coefficient is -0.574, and the probability value is 0.00 which is smaller than 0.05. It means that the OEOL has a significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the OEOL has a significant effect on the credit amount of MSME is accepted.

Thus, the change in OEOL causes a significant change in the stock return of obtained by the investors. The findings of this research support the research conducted by Satrio and Endang (2012). OEOL (Operating Expenses Operating Income) is a ratio that describes the efficiency of a bank in carrying out its activities. Operating expenses are the interest costs given to customers while operating income is the interest earned from customers. The smaller the value of OEOL, the more efficient the bank will be in carrying out its activities. If banks increasingly reduce operating expenses and increase their operating income, the bank will become more efficient so that the credit distribution of MSME can grow.

The Effect of ROA on Credit Amount of MSME. The partial test result (t-test) between the ROA variable and the Credit Amount of MSME variable shows that the value of t-count is -0.071, , the regression coefficient is -0.030, and the probability value is 0.934 which is greater than 0.05. It means that ROA has no significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the ROA has a significant effect on the credit amount of MSME is rejected.

ROA also does not have an effect on credit distribution of MSME. According to Suhardi (2003), this can occur with the possibility that the increase in profit is used as a productive asset reserve or other activity and is not prioritized to be re-managed in credit distribution.

The Effect of NPL, BI Rate, CAR, OEOL, and ROA Simultaneously on Credit Amount of MSME. Simultaneous testing results (F-test) on the variables of Non-Performing Loans (NPL), BI Rate, Capital Adequacy Ratio (CAR), OEOL, and Return on Assets (ROA) simultaneously affect the credit amount of MSME distributed by SOE banks which shows Sig value 0.00 or < 0.05 . It means that NPL, BI Rate, CAR, OEOL, and ROA have a significant effect simultaneously on the credit amount of MSME distributed by SOE banks. Thus, the hypothesis which states that the NPL, BI Rate, CAR, OEOL, and ROA have a significant effect on credit amount of MSME can be accepted.

This is in line with Ang's theory (1997) who says that there are two factors affecting the return of an investment. The company's internal factors include the quality and reputation of its management, its capital structure, the company's debt structure, and so on; in this case NPL, CAR, OEOL, and ROA. Variables involving external factors include the effect of monetary and fiscal policies, the development of industrial sector, the economic factors such as inflation, and so on; in this case it is the BI Rate variable. It is found that there are many factors that may be the X variables in affecting Y variable, especially in terms of external factors of the company. In terms of external factors of the company, there are political factors that also affect the return of an investment.

CONCLUSION

The findings of the research show that the variables of Non-Performing Loans, BI Rate, Capital Adequacy Ratio, OEOL, and Return on Asset affect the Credit Amount of MSME distributed by SOE banks. It means that every change that occurs in the independent variables, namely Non-Performing Loans, BI Rate, Capital Adequacy Ratio, OEOL, and Return On Assets to Credit Amount of MSME simultaneously affect the Stock Return on SOE Banks in Indonesia.

Partially, the variables of Non-Performing Loans (NPL) and OEOL have effects on the Credit Amount of MSME and are the most dominant variables affecting the Credit Amount of MSME based on the findings of the research as follows:

- Non-Performing Loans have a significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- BI Rate has no significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- Capital Adequacy Ratio has no significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- OEOL has a significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- Return on Assets has no significant effect on the Credit Amount of MSME on SOE Banks in Indonesia.

Based on the obtained conclusions, the implications that can be submitted are as follows:

Non-Performing Loans (NPL) are very influential on credit distribution; the lower the NPL, the greater the credit amount distributed. State-owned banks must have good credit management so that the NPL level is below the maximum limit required by Bank Indonesia, which is 5%. Thus, the state bank can distribute MSME credit to the maximum. The ability of the debtor, from the financial side to repay the principal and interest on the credit, does not mean without the will and goodwill of the debtor. Thus, if many debtors are in arrears in installments, it will trigger the increasing level of NPL.

BI Rate is the benchmark interest rate which is expected to affect other interest rates including interest rate of banking credit. If the BI Rate cannot affect changes in interest rate of banking credit, the government cannot use BI Rate as a tool by to increase credit distribution of MSME. MSME actors need more access to credit from banks to conduct

business development rather than reducing the benchmark interest rate. The next factors that make small and medium enterprises survive from all crises is that MSME does not have foreign debt, MSME is considered as unbankable so it does not have much debt to banks, MSME uses local inputs, and MSME is export oriented.

Capital Adequacy Ratio (CAR) is a capital ratio that shows the bank's ability to provide funds for business development needs and accommodate the risk of loss of funds caused by bank operations. The high CAR indicates potential financial resources (capital). The CAR condition is quite high far above the minimum provisions required by Bank Indonesia of 8%, requiring state-owned banks to be more optimal in utilizing the use of financial resources (capital) owned through credit distribution (productive sector), especially MSME credit.

The level of bank efficiency in carrying out its operations (OEOI) must be optimized. It also needs to improve the implementation of risk management to anticipate the risks and improve banking management. The smaller the value of OEOI, the more efficient the bank will be in carrying out its activities. If banks increasingly reduce operating expenses and increase operating income, banks will be more efficient so that credit distribution of MSME can grow.

Return on Assets (ROA) is a measure of a bank's ability to cover its assets as a result of bank losses caused by risky assets. The higher the CAR, the better the bank's ability to bear the risk of any risky credit/productive assets. If the CAR is high then the bank is able to finance operational activities and make a substantial contribution to profitability. However, banks cannot determine their own CAR value, because the government has required a minimum CAR limit of 8%. The calculation of Capital Adequacy Ratio is based on the principle that each risk-bearing investment must provide a certain amount of capital to a certain amount of investment.

REFERENCES

1. Anggraini, D., & Nasution, S. H. (2013). Peranan kredit usaha rakyat (KUR) bagi pengembangan UMKM di Kota Medan (studi kasus Bank BRI). *Ekonomi dan Keuangan*, 1(3).
2. Ang, Robert. (1997). *Buku Pintar Pasar Modal (The Intelligent Guide to Indonesian Capital Market)*. Edisi I. Mediasoft Indonesia.
3. Domeher, D. (2012). Land Rights And SME Credit: Evidence From Ghana. *International Journal of Development Issues*. Vol. 11, No. 2.
4. Ghozali, I. (2005). *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Universitas Diponegoro.
5. Nurlestari, A. & Mahfud, M.K. (2015). Analisis Faktor-Faktor yang Mempengaruhi Penyaluran Kredit UMKM (Studi Pada Bank Umum yang Terdaftar di Bursa Efek Indonesia Periode 2009-2013). *Jurnal Manajemen Universitas Diponegoro*. Vol.4, No.4..
6. Kusnandar, D.S. (2012). *Pengaruh Dana Alokasi Umum, Pendapatan Asli Daerah, Sisa Lebih Pembiayaan Anggaran dan Luas Wilayah Terhadap Belanja Modal*. Jakarta: Universitas Indonesia.
7. Pratama, B. A. (2010). *Analisis faktor-faktor yang mempengaruhi kebijakan penyaluran kredit perbankan (Studi pada Bank Umum di Indonesia Periode Tahun 2005-2009)* (Doctoral dissertation, Universitas Diponegoro).
8. Satrio, B. H., & Endang, T.W. (2012). *Analisis Pengaruh Nim, Npl, Bopo, Bi Rate Dan Car Terhadap Penyaluran Kredit Bank Umum Go Public Periode Tahun 2012-2016*. Universitas Diponegoro.
9. Sugiyono. (2006). *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Bandung: Alfabeta.
10. Suhardi. (2003) "Usaha Perbankan Dalam Perspektif Hukum", Penerbit Kanisius, Yogyakarta.
11. Triasdini, H. & Denny, A.E. (2010). *Pengaruh CAR, NPL dan ROA Terhadap Penyaluran Kredit Modal Kerja (Studi Pada Bank Umum Yang Terdaftar Di Bursa Efek Indonesia Periode 2004-2009)*. Skripsi. Universitas Diponegoro.

12. Waljjanah, R. & Wulandari, F. (2012). "Determinan Tingkat Suku Bunga Pinjaman Perbankan Di Indonesia (Periode Juli 2005 – Desember 2011). Jurnal \. Fakultas Ekonomi dan Bisnis Universitas Brawijaya.
13. Wardhani, S. (2011). "Analisis Pengaruh Spread Tingkat Suku Bunga Bank, CAR, dan NPL Terhadap Penyaluran Kredit UMKM oleh Perbankan di Indonesia". Skripsi. Fakultas Ekonomi Universitas Diponegoro Semarang.
14. Yuwono, F. A., & Meiranto, W. (2012). Analisis Pengaruh Dana Pihak Ketiga, Loan To Deposit Ratio, Capital Adequacy Ratio, Non Performing Loan, Return On Assets, Dan Sertifikat Bank Indonesia Terhadap Jumlah Penyaluran Kredit (Studi Empiris: bank yang terdaftar di BEI) (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).
15. Data BI rate tahun 2011-2014. Terpublikasikan melalui website: www.bi.go.id Diakses tanggal: 29 November 2017
16. Data rasio keuangan sektor perbankan tahun 2011-2012. Terpublikasikan melalui website: <https://finance.yahoo.com/>
17. Data tingkat inflasi tahun 2011-2014. Terpublikasikan melalui website: www.bi.go.id
18. Data Jumlah Kredit UMKM 2011-2014. Terpublikasikan melalui website: www.bi.go.id
19. Profil yang menjadi objek penelitian. Terpublikasikan melalui website: <http://www.bankmandiri.co.id/>, <http://www.bni.co.id/>, <http://www.btn.co.id/> dan <http://www.ir-bri.com/>