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The Effects of Non-Performing Loans (NPL), Return on Assets (ROA), Capital Adequacy Ratio (CAR) and BI Rate on Credit Distribution to Commercial Banks Listed on the Indonesian Stock Exchange for the 2019-2021 Period

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ABSTRACT: This research aims to determine the effect of the Non Performing Loan (NPL) variable on credit distribution, knowing the influence of the Return on Assets (ROA) variable on credit distribution, knowing the influence of the Capital Adequency Ratio (CAR) variable on credit distribution, knowing the influence of the BI Rate variable on credit distribution, and knowing the influence of the NPL, ROA, CAR and BI Rate variables on credit distribution credit at Commercial Banks listed on the Indonesia Stock Exchange in 2019-2021. The companies used as samples are 25 companies listed on the Indonesia Stock Exchange in 2019-2021. The data analysis technique uses multiple regression analysis. The results of the analysis show that Non Performing Loans (NPL) have a positive and insignificant effect on credit distribution. Return on Assets (ROA) has a positive and significant effect on credit distribution. Capital Education Ratio (CAR) has a negative and insignificant effect on credit distribution. The BI Rate has a negative and insignificant effect on credit distribution.

KEYWORDS: Non-Performing Loans (NPL), Return On Assets (ROA), Capital Adequacy Ratio (CAR) and BI Rate on Credit Distribution

I. INTRODUCTION

Banks are financial intermediary institutions that bring together parties who have excess funds (surplus units) with parties who lack funds (deficit units). As a financial intermediary institution, banks will always be careful in managing sources of public funds, because errors in managing sources of public funds, because errors in managing sources and errors in allocating funds will result in a decrease in public trust in banks. Banks are companies that operate in the service business, where public trust will occupy a very large portion in maintaining the bank's survival, because bank survival is largely determined by public trust. Public trust in banks must be maintained carefully, one of which is being careful in distributing funds to parties who need funds (Ismail, 2018).

The COVID-19 pandemic has had a significant double impact, namely on the health and economic sectors, which has claimed millions of lives and triggered a global economic recession. The COVID-19 pandemic has caused most business actors to go bankrupt, especially if there is no stimulus policy from the government. The pandemic has an impact on all companies and sectors, especially on liquidity issues. The decline in trading activity causes sales to decline, so that many companies rely on liquid asset/cash reserves to meet their maturing obligations. This happens to the majority of small and medium businesses, where alternative sources of funds are limited and banks as the main source of funding must be more careful in distributing credit. The COVID-19 pandemic has had an impact on the economy and raised concerns about banks' accumulation of non-performing loans (NPLs) on their balance sheets. This affects banks' ability to channel credit and support economic recovery. These concerns provide new relevance to NPL resolution strategies by ensuring the soundness of banks and strengthening their resilience. Of course, the strategy that will be implemented to resolve problem loans must be carried out transparently so as to avoid lawsuits and protect customer interests (www.bi.go.id).

After the Covid-19 pandemic, economic development in Indonesia began to improve and increased by 3.69 percent in 2021. This figure is higher compared to 2020, which actually weakened by 2.07%. The GDP structure for Quarter 4 in 2021 is dominated by the Industry, Trade, Agriculture, Construction and Mining sectors. The industrial sector occupies the highest rank

in the GDP structure at 18.80% and is followed by the trade sector at 12.71% (Central Statistics Agency, 2022). The increase in the industrial, trade and other sectors cannot be separated from the role of the monetary sector.

Banks are financial intermediaries, namely companies whose activities are to receive funds from the public in the form of savings and distribute them to the public in the form of credit. The bank's strategy in raising funds is to provide incentives in the form of attractive and profitable remuneration. The remuneration can be in the form of interest for banks based on conventional principles and profit sharing for banks based on sharia principles. Then other stimuli can be in the form of souvenirs, gifts, services or other remuneration. The more diverse and profitable the rewards provided, the more people will be interested in saving their money. Therefore, banks must provide various stimuli and trust so that people are interested in investing their funds in banks. (Darmawi, 2012).

The main activity of a bank is to collect public funds and distribute them back to the community to improve people's welfare. Funds collected from the community are the largest source of funds for carrying out credit activities. Providing credit contains various risks due to the possibility that the credit will not be repaid by the debtor at the maturity date of the credit. Banks must apply the principle of prudence in determining the policies they take, especially in credit policy. When providing credit by conventional banks, apart from interest charges, banks also charge loan services to credit recipients (debtors) in the form of administration fees as well as fees and commissions. Meanwhile, banks based on sharia principles are based on profit sharing or capital participation. The size of the credit interest is greatly influenced by the size of the savings interest. The greater or more expensive the savings interest, the greater the loan interest and vice versa. Apart from savings interest, the size of loan interest is also influenced by profits taken, operating costs incurred, bad credit risk reserves, tax costs and other influences.

Credit is the largest allocation of funds for banks which provides large profits for banks. However, despite this, the risks faced by banks in distributing credit are also large. Therefore, banks must be careful in distributing credit. The ability to distribute credit by banks is influenced by various things which can be divided into two, namely from the internal and external sides of the bank. From an internal perspective, banking credit offering behavior is influenced by Non-Performing Loans (NPL), Return on Assets (ROA), and Capital Adequency Ratio (CAR). From the external side, it is related to government regulations and economic conditions. Government regulations relate to how the government carries out monetary policy through the interest channel instrument, namely the BI Rate as the reference interest rate. In the banking mechanism, there are several activities carried out between conventional banks and the central bank, namely changing interest rates and discount rates. (Darmawi, 2012).

Apart from being a source of profit, credit disbursed by banks also has risks. The potential for high credit risk, generally cannot be separated from credit risk, which is called Non-Performing Loans (NPL). Problem loans can be measured from their collectability, which is the percentage of the number of problem loans (with the criteria of substandard, doubtful and loss) of the total credit issued by the Bank. High levels of non-performing loans can cause banks to be reluctant to distribute credit because they have to create large write-off reserves, thereby reducing the amount of credit provided by a bank. The higher the NPL level, the greater the credit risk borne by the bank (Yuliana, 2014). Apart from reducing profits and hampering bank activities, high NPL levels also require banks to create a number of reserve funds to maintain solvency and liquidity. In fact, the amount of capital greatly influences the amount of credit disbursement carried out by the bank. Therefore, the higher the NPL level, the smaller the amount of credit that can be distributed. Research results from Yuliana (2014), Handayani (2018) and Khairiyah (2022), shows that NPLs have a negative influence on banking credit distribution.

Another factor that can influence bank credit distribution is profitability which can be measured by Return on Assets (ROA). ROA is an indicator that will show that if this ratio increases then bank assets have been used optimally to obtain income so that it is estimated that ROA and credit have a positive relationship. Return on Assets (ROA) is used to measure bank management's ability to obtain overall profits (Dendawijaya, 2015). ROA compares profit to total assets, if there is a significant increase in ROA it will also have an effect on lending to the bank. The greater the Return on Assets (ROA) of a bank, the greater the level of profit achieved by the bank with large profits, then a bank can offer more credit.

Another factor that can influence bank credit distribution is the Capital Adequacy Ratio (CAR). According to Bank Indonesia Regulation Number 3/21/PBI/2001 concerning the obligation to provide minimum capital for commercial banks, each bank is required to provide minimum capital of 8% of its risk-weighted assets (ATMR) projected using the Capital Adequacy Ratio (CAR). If this provision is not complied with, Bank Indonesia will place the bank under special supervision from Bank Indonesia. During the 2008 crisis, Indonesian banks experienced a sharp decline in capital due to large losses and a decline in the quality of their assets. In conditions like these, it is natural for banks to persist in not disbursing credit because the greater the credit disbursed is the same as increasing the risky assets they own, thus requiring the bank to increase capital. This means that the greater the CAR value, the more banks can offer credit (Ranitasari, 2017).

In this study, researchers will only include the BI Rate variable as a variable that represents external bank factors because the BI Rate is a policy interest rate that reflects the monetary policy stance set by Bank Indonesia and announced to the public. This BI Rate arises when inflation increases. Therefore, the BI Rate is considered to represent external bank factors. The BI Rate is a policy interest rate that reflects the monetary policy attitude or stance set by Bank Indonesia and announced to the public. The BI Rate is determined by considering factors in the economy. The determination of the BI Rate is expected to be followed by movements in deposit interest rates, and in turn banking credit interest rates (www.bi.go.id). In this way, the BI Rate becomes the reference interest rate set by Bank Indonesia every month through a board of governors meeting, then announced to the public as a reference for the reference credit interest rate. Therefore, the BI Rate greatly influences interest rates from banks or financing companies (leasing) for credit transactions.

Bank Indonesia as the national banking authority continues to implement various policies to improve national banking performance. Bank Indonesia issued strict regulations related to bank operations and these policies turned out to be quite good and could improve banking performance. Bank credit distribution in the 2019-2021 period was quite stable even though it was affected by the Covid-19 pandemic, there was an insignificant decline in 2020 but increased again in 2021, as can be seen in the following picture.

Table 1. Average NPL, ROA, CAR, and BI Rate and total credit at Commercial Banks for the 2019-2021 period

Year	Credit (Billion)	NPLs	ROA	CAR	BI Rate
2019	Rp. 5,683,757	2.54%	2.47%	23.40%	5.63%
2020	Rp. 5,547,618	3.06%	1.59%	23.89%	4.25%
2021	Rp. 5,820,636	3.35%	1.85%	25.66%	3.25%

Research on the BI Rate has often been carried out, but there is still a gap from the results of previous research, including research by Putra & Rustarituni (2015), which states that the BI Rate has a positive and significant effect on credit distribution, while Astuti (2013) says that it has a negative effect on credit distribution. credit.

Research on the factors that influence credit distribution has now been widely carried out, however there are still differences in research results. Based on this, this research was conducted for several reasons. First, because there are differences in results (Research Gap) conducted by Yuliana (2014) showing that NPL has no effect on credit distribution, while CAR and ROA have an effect on credit distribution. Meanwhile, Purba et al., (2016) stated that NPL had a significant negative effect on credit distribution and ROA showed no effect on credit distribution. Starting from phenomena and research gaps, this research aims to analyze and find empirical evidence of the influence of Non-Performing Loans (NPL), Return on Assets (ROA), Capital Adequency Ratio (CAR), and BI Rate on Credit Distribution to Commercial Banks for the 2019 period -2021.

II. LITERATURE REVIEW

A. Signal Theory (Signaling Theory)

According to Brigham & Houston (2001), a signal is an action taken by a company to give investors a clue about how management views the company's prospects. This signal is in the form of information about what management has done to realize the owner's wishes. Information released by the company is important, because of its influence on investment decisions of parties outside the company. This information is important for investors and business people because information essentially provides information, notes or descriptions, both of past, present and future conditions for the survival of the company and the effects on the company.

B. Working capital credit

According to Arief Wibowo (2007), the criteria for working capital are capital requirements that are used up in a business cycle which can be seen from the company's balance sheet in the form of bank cash plus trade receivables plus inventory of finished goods, goods in process, and raw material inventory. . Working capital shows the amount of funds embedded or tied to current assets needed to carry out company activities. Another term for working capital is gross working capital. Working capital when reduced by short-term liabilities (current debt) is often called net working capital. The amount of working capital required is influenced by two factors, namely the level of sales activation and working capital turnover (working cycle).

C. Non Performing Loans (NPL)

According to Darmawan (2004), NPL is a ratio used to measure a bank's ability to cover the risk of credit failure by debtors. Meanwhile, according to Siamat (2005), Non-Performing Loans or non-performing loans can be defined as loans that experience

difficulty in repayment due to gaps and/or external factors beyond the debtor's control. So NPL can be interpreted as an indicator used to determine the risk of failure to repay loans by customers.

NPL can be measured from its collectability. Collectability is a description of the condition of principal and interest payments on loans as well as the level of possibility of receiving back funds invested in securities (Siamat, 2005). Classification of credit collectability assessments, namely:

1) Current credit (Pass) is credit where principal and interest installments are paid on time, has active account mutations, and the credit portion is secured by cash collateral.
2) Credit under special mention (Special Mention) is credit that meets the criteria, one of which is that there are arrears in interest principal installments that have not exceeded 90 days.
3) Substandard credit is credit that meets the criteria, one of which is that there are arrears in principal and interest installments exceeding 90 days.
4) Doubtful credit is credit where there are arrears in principal and interest installments that have exceeded 180 days.
5) Bad credit is credit where principal and interest installments have been in arrears for more than 270 days.

If credit is linked to its collectability then credit that is said to be problematic is credit that has the quality of special attention, substandard, doubtful and non-performing. The tendency for losses arising from disbursed credit is basically due to, among other things, the bank's lack of serious attention after the credit is running and the lack of analysis carried out by the bank when changes occur in the business cycle.

NPL is a ratio used to measure a bank's ability to cover the risk of failure to repay credit by debtors. NPL reflects credit risk, so the smaller the NPL, the smaller the credit risk borne by the bank. When providing credit, banks must carry out an analysis of the debtor's ability to repay their obligations. After credit is granted, the bank is obliged to monitor the use of credit as well as the debtor's ability and compliance in fulfilling its obligations. Banks must review, assess and bind collateral to minimize credit risk (Harahap, 2015).

D. Return on Assets (ROA)

The company has a goal or target in carrying out its business to gain profit. The reason banks achieve profits is so they can fulfill their obligations to shareholders, assess the performance of leaders, and increase the attractiveness of investors to invest their capital. High profits in banking companies make people more confident in borrowing credit from these companies (Yuwono, 2012). So the bank maintains its continuity through the profits it generates.

According to Dendawijaya (2015), ROA is a ratio used to measure bank management's ability to obtain overall profits. ROA is a ratio used to measure the ability of bank management to obtain profits (profit) from its asset management activities. So ROA is an indicator used to find out how far the company's ability to gain profits.

The greater the ROA of a bank, the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use (Dendawijaya, 2015). If a bank's ROA ratio is large, it can be said that the bank has quite good financial performance. An increased ROA means that the bank's profitability also increases. This means that the bank is effective in managing its assets, therefore it will be easier for the bank to approve credit submitted by customers because the bank's ability to generate profits is quite good, which ultimately means that credit distribution will also increase (Purba, et al, 2016).

E. Capital Adequacy Ratio (CAR)

Capital has an important role in the continuity of a bank's operational performance (Siamat, 2005). According to Dendawijaya (2015) CAR is a bank performance ratio to measure the adequacy of capital owned by the bank to support assets that contain or generate risk, especially credit risk. Meanwhile, according to Darmawi (2012), CAR is a comparison between capital and risk-weighted assets (RWA). The capital referred to is core capital and supplementary capital, while RWA is a risk-weighted asset which is the total value of each bank's bank assets after being multiplied by each risk weight. So CAR is a ratio to measure capital adequacy by considering capital with risk-weighted assets.

F. BI Rate

According to www.bi.go.id, the BI Rate is a policy interest rate that reflects the monetary policy stance set by Bank Indonesia and announced to the public. Meanwhile, according to Siamat (2005), the BI Rate is an interest rate with a tenor of one month which is announced by Bank Indonesia periodically for a certain period of time which functions as a signal (stance) for monetary policy. So the BI Rate can be interpreted as the benchmark interest rate for banking companies issued by Bank Indonesia.

The BI Rate is used as a reference in monetary operations to direct the weighted average SBI interest rate to be around the BI Rate. The BI Rate is announced by the Board of Governors of Bank Indonesia at every monthly Board of Governors Meeting

and is implemented in monetary operations carried out by Bank Indonesia through liquidity management in the money market to achieve operational targets of monetary policy (www.bi.go.id).

The operational targets of monetary policy are reflected in the development of Overnight Interbank Money Market interest rates. By considering other factors in the economy. The form of monetary policy response is expressed in changes to the BI Rate (increase or decrease) carried out consistently and gradually in multiples of 25 basis points (bps). Basically, changes in the BI Rate show Bank Indonesia's assessment of future inflation estimates compared to the inflation target that has been set.

In general, Bank Indonesia will increase the BI Rate if future inflation is expected to exceed the set target, whereas Bank Indonesia will reduce the BI Rate if future inflation is predicted to be below the set target. An increase in the BI Rate will result in bank credit interest rates increasing, so that people's desire to borrow funds will decrease. On the other hand, a decrease in the BI Rate can increase demand for credit from the public.

G. Hypothesis

Based on the theory and framework of thought, the hypothesis proposed:

1) Non Performing Loans has a negative and significant effect on credit distribution to Commercial Banks listed on the IDX in 2019-2021.
2) Return on Assets has a positive and significant effect on credit distribution to Commercial Banks listed on the IDX in 2019-2021.
3) Capital Adequacy Ratio has a positive and significant effect on credit distribution to Commercial Banks listed on the IDX in 2019-2021.
4) The BI Rate has a negative and significant effect on credit distribution to Commercial Banks listed on the IDX in 2019-2021.

III. RESEARCH METHODS

A. Research design

In this research the author uses a quantitative approach. According to (Creswell, 2010) the quantitative approach is the measurement of quantitative data and objective statistics through scientific calculations derived from samples of people or residents who are asked to answer a number of questions about a survey to determine the frequency and percentage of their responses.

B. Population, Sample and Sampling Technique

According to Siyoto & Sodik (2015), population is a generalized area consisting of objects/subjects that have certain quantities and characteristics determined by researchers to be studied and then conclusions drawn. What is meant by population in this research is Commercial Banks listed on the Indonesian Stock Exchange. Meanwhile, the sample is part of a number and characteristics possessed by the population (Sugiyono, 2014). The population in this research is the financial reports of all Commercial Banks listed on the Indonesia Stock Exchange from 2019 - 2021, namely 42 companies.

According to (Sugiyono, 2018) the sample is part of the number and characteristics of the population. The sampling technique used in this research is purposive sampling, namely the sample is selected based on certain objectives and considerations. The determination of this sample is taken from the characteristics of the population with the following criteria:

1) Companies listed in the banking sub-sector as commercial banks and have gone public on the Indonesia Stock Exchange;
2) Commercial Banks that conducted an IPO before the 2019 period on the Indonesia Stock Exchange (BEI);
3) The financial reports and financial ratios required in this research are available and published for 3 years (2019-2021 period);

Table 2. Sample Selection Process

No.	Sample Criteria	Sample
1.	Companies listed in the banking sub-sector as commercial banks and have gone public on the Indonesia Stock Exchange	43
2.	Commercial banks that conducted an IPO before the 2019 period on the Indonesia Stock Exchange (BEI);	36
3.	Financial reports along with the required financial ratios are available and published for the 3 year period 2019-2021	25

Based on the sample selection criteria in this research, namely companies downloaded via the websites www.idx.co.id and www.ojk.id, the companies used as samples were 25 companies listed on the Indonesia Stock Exchange in 2019-2021.

Table 3. List of Banks Used in the Sample

No.	Bank name
1	PT. Bank BRI Agroniaga Tbk.
2	PT. Bank AGRIS Tbk
3	PT. Bank MNC Internasional Tbk.
4	PT. Bank Central Asia Tbk
5	PT. Bank Bukopin Tbk.
6	PT. Bank Mestika Dharma Tbk
7	PT. Bank Negara Indonesia (Persero) Tbk.
8	PT. Bank Rakyat Indonesia (Persero) Tbk
9	PT. State Savings Bank (Persero) Tbk.
10	PT. Bank Danamon Tbk.
11	PT. Bank Ina Perdana Tbk.
12	Bank QNB Indonesia Tbk.
13	PT. Bank Maspion Indonesia Tbk.
14	PT. Bank Mandiri (Persero) Tbk.
15	PT. Bank Bumi Arta Tbk
16	PT. Bank CIMB Niaga Tbk.
17	PT. Bank Permata Tbk.
18	PT. Bank Sinarmas Tbk
19	PT. Bank BTPN Tbk.
20	PT. Bank Victori International Tbk.
21	PT. Bank Dinar Indonesia Tbk.
22	PT. Bank Artha Graha International Tbk.
23	PT. Bank Mega Tbk.
24	PT. Bank OCBC NISP Tbk
25	PT. National NOBU Tbk

C. Research Variables and Operational Definitions of Variables

In this research, the variable used is the amount of working capital credit as the dependent variable (Y). Meanwhile, those used for the independent variables are Non Performing Loans (X1), Return on Assets (X2), Capital Adequacy Ratio (X3) and BI Rate (X4).

1) Dependent Variable

The dependent variable is a variable that is influenced or caused by other variables (Iqbal, 2002). The dependent variable used in this research is the amount of working capital credit disbursed, expressed in millions of rupiah.

2) Independent Variable

Independent variables are variables that cause or influence other variables (Iqbal, 2002). The independent variables used in this research are Non Performing Loans (X1), Return on Assets (X2), Capital Adequacy Ratio (X3) and BI Rate (X4).

a) Non Performing Loans(X1)

The Non-Performing Loan Ratio is the level of collectibility of loans that are considered problematic which fall into the criteria of substandard, doubtful and nonperforming. The amount of problematic loans is then compared with the total loans disbursed. In Hasan Sakti Siregar (2007) it is stated that banks need to pay attention to the existence of NPLs when distributing credit, because adding credit without a good analysis will increase problem loans. This ratio is formulated as follows:

$$NPL = \frac{\text{Total NPL}}{\text{Total Loans}} \text{ x } 100\%$$

b) Return on Assets(X2)

This ROA ratio is used to measure bank management's ability to obtain profits or overall profit. Ismail (2018), states that if bank management wants more profits, existing funding sources must be allocated to productive asset activities such as credit volume, or in other words, this ratio is a comparison between profit before tax and total bank assets. According to Dendawijaya (2015), this ratio is formulated as follows:

$$ROA = \frac{\text{Earning before tax}}{\text{Total Asset}} \text{ x } 100\%$$

c) Capital Adequacy Ratio(X3)

CAR is a ratio that shows the comparison between capital (core capital and supplementary capital) owned by a bank and risk-weighted assets. According to Meydianawathi (2006), sufficient capital is very important for banks in streamlining the operations of a bank, provided that this capital has a small risk weight and is able to become a profitable asset. By Dendawijaya (2015), this ratio is formulated as follows:

$$CAR = \frac{\text{Equity Bank}}{\text{Total ATMR}} \times 100\%$$

d) BI Rate (X4)

The BI Rate is the interest rate on Bank Indonesia's signaling instrument which is determined at the quarterly RDG (Board of Governors' Meeting) to be valid during the current quarter (one quarter), unless determined differently by the monthly RDG in the same quarter.

D. Data Analysis Techniques

This research uses multiple linear regression analysis techniques for data processing where this technique is used to estimate the value of the dependent variable using more than one independent variable. Before carrying out multiple regression analysis, this method requires testing classical assumptions to get good results (Ghozali, 2018).

IV. RESULTS AND DISCUSSION

A. Description of Research Results

The data used in this research consists of Net Performing Loans (NPL), Return on Assets (ROA), Capital Adequency Ratio (CAR) and BI Rate, whether there is a relationship with the amount of credit disbursed by the bank. This data was obtained from bank financial reports which report their financial reports regularly from 2019 to 2021 on their official website.

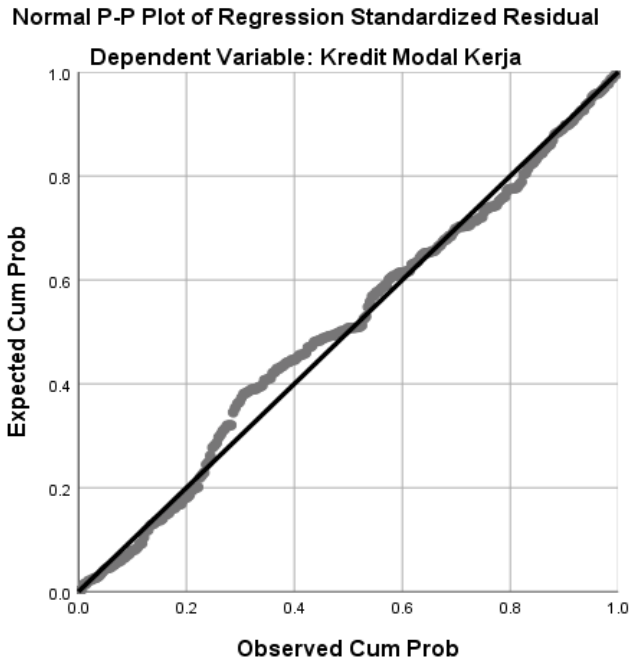
1. The NPL variable has a minimum value of 0.45% owned by PT. Bank Artha Graha International Tbk. in 2019. Meanwhile, the maximum value of the NPL variable was 16.14% owned by Bank Mandiri in 2020. The average value of this NPL variable was 2.55% with a standard deviation of 2.67. From the data above we can see that the banks included in the sample have a fairly high range which can be seen from the standard deviation value which is above the average value. Not all of the NPL values held by these banks meet the standards set by Bank Indonesia, namely 5%.
2. The ROA variable has a minimum value of 0.37% produced by PT. Bank Victori International Tbk. in 2020 and the maximum value of 5.77% was produced by Bank Rakyat Indonesia in 2019. The average value of the ROA variable in this study was 2.14% and the standard deviation was 1.25. A standard deviation value that is lower than the average value means that the existing ROA value is quite good.
3. The CAR variable has a minimum value of 9.37% which is owned by PT. Bank Maspion Indonesia Tbk. in 2021 and a maximum value of 33.27% owned by Bank Mandiri in 2019 with an average value of 17.41% and a standard deviation of 5.06. The CAR value position held by the banks in the sample has met the criteria required by Bank Indonesia and Bank International Settlement (BIS).
4. The BI Rate variable has a minimum value of 2.37% which is owned by PT. State Savings Bank (Persero) Tbk. in 2019 and a maximum value of 4.27% owned by Bank Mandiri in 2021 with an average value of 15.41% and a standard deviation of 3.06.

B. Analysis of Research Results

1) **Classic assumption test**

a. Normality test

This normality test aims to test whether in the regression model the dependent and independent variables have a normal distribution. A good regression method is to have a normal or close to normal data distribution. The scatter plot results for the normality test are as follows:



Picture1. Probability Plot Normality Test

Based on Figure 1 above, we can see that the data is normally distributed, that is, the distribution of the data follows the existing diagonal line. So it can be concluded that the residuals are normally distributed.

b. Multicollinearity Test

The multicollinearity test method is by looking at the Tolerance and Inflation Factor (VIF) values in the regression model. If the VIF value is less than 10 and the Tolerance value is more than 0.1 then it can be concluded that a regression model is free from multicollinearity.

Table 4. Multicollinearity Test Results

Coefficients[a]

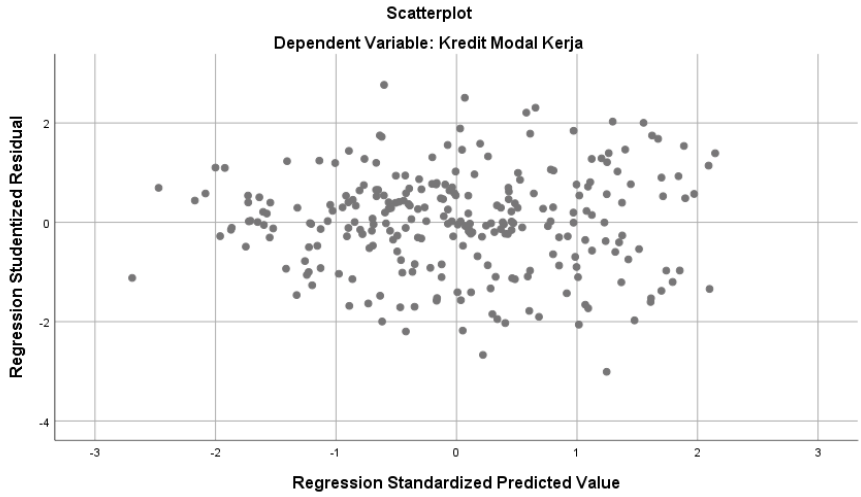
Model		Collinearity Statistics Tolerance	VIF
1	(Constant)		
	Non Performing Loans (NPL)	.838	1.193
	Return on Assets (ROA)	.787	1.270
	Capital Adequacy Ratio (CAR)	.764	1.309
	BI Rate	.809	1.236

a. Dependent Variable: Working Capital Credit

Based on Table 5.1, it can be seen that the tolerance value for all independent variables is > 0.10 and the VIF value is < 10. It can be concluded that there is no multicollinearity between the independent variables in this regression model.

c. Heteroscedasticity Test

The Heteroscedasticity Test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. If the variance from one residual from one observation to another is constant then this is called homoscedasticity and if the variance is not constant or changes it is called heteroscedasticity. In this study, the heteroscedasticity test used the Scatterplot test. The results of the heteroscedasticity test in this study are displayed in the following form:



Picture 2. Heteroscedasticity Test Results

Figure 2 shows that the results of the heteroscedasticity test are that the points on the graph do not reflect a systematic pattern or can be said to be random. This shows that there is no difference in variance at a given level of variable value X, in other words the variance is constant or there is no heteroscedasticity.

d. Autocorrelation Test

The Autocorrelation Test aims to test whether in the linear regression model there is a correlation between confounding errors in period t and confounding errors in period t-1 (previous). The results of the autocorrelation test in this study can be seen in table 5 below:

Table 5. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.207a	.043	.028	.07042	2.295

a. Predictors: (Constant), Non Performing Loan (NPL), Return on Assets (ROA), Capital Adequency Ratio (CAR), BI Rate

b. Dependent Variable: Working Capital Credit

The Durbin Watson test calculation result obtained is 2.295, then this result will be compared with the dl and du values obtained from the Durbin Watson table. The total sample was 25 with 4 independent variables, resulting in a dl value of 1.038 and du of 1.767. Based on the calculated values above, it can be stated that this research is free from autocorrelation problems.

2) Multiple Linear Regression Test

Based on the results of the classical assumption test above, it can be concluded that the data used in this research is normally distributed so that it meets the requirements for conducting multiple regression analysis and testing hypotheses. Creating multiple regression equations can be done by interpreting the numbers in the unstandardized coefficient Beta in Table 6 below:

Table 6. Multiple Regression Test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	208.631	280.151		.745	.495
	Non Performing Loans (NPL)	25.063	14.948	.165	1.677	.098
	Return on Assets (ROA)	117.426	16.258	.732	7.223	.000
	Capital Adequacy Ratio (CAR)	- 8.421	5.134	-.169	-1.640	.105
	BI Rate	-29.735	30.655	-.097	-.970	.335

a. Dependent Variable: Working Capital Credit

Based on table 6. above, a multiple regression equation can be prepared as follows:

Working Capital Credit = 208,631+25,063X1+117,426X3–8,421X2–29,735X4+e

Based on the regression equation above, we can interpret several things, including the following:

a. The constant value of the equation above is 208,631, which means that credit would be worth 208,631 units if variables such as NPL, ROA, CAR and BI Rate were absent.
b. The NPL variable has a positive regression coefficient value of 25,063. A positive coefficient value indicates that NPL has a positive effect on credit distribution. This illustrates that if there is an increase in the NPL value of 1 percent it will cause an increase in the value of credit distribution of 25,063 rupiah assuming that the other independent variables are considered constant.
c. The ROA variable has a positive regression coefficient value of 117,426. A positive coefficient value indicates that ROA has a positive effect on credit distribution. This illustrates that if there is an increase in the ROA value of 1 percent it will cause an increase in the value of credit distribution of 117,426 rupiah assuming that the other independent variables are considered constant.
d. The CAR variable has a negative regression coefficient value of -8.421. A negative coefficient value indicates that CAR has a negative effect on credit distribution. This illustrates that if there is a decrease in the CAR value of 1 percent, it will reduce the value of credit distribution by 8,421 rupiah assuming that the other independent variables are considered constant.
e. The BI Rate variable has a negative regression coefficient value, namely -29.735. A negative coefficient value indicates that the BI Rate has a negative effect on credit distribution. This illustrates that if there is a decrease in the BI Rate value of 1 percent, it will reduce credit distribution by 29,735 rupiah assuming that the other independent variables are considered constant.

3) HYPOTHESIS TESTING

a. Hypothesis Testing (t Test)

b. The t test is used to determine the influence of the independent variables, namely Non-Performing Loans (NPL), Return on Assets (ROA), Capital Adequacy Ratio (CAR), and BI Rate partially on the dependent variable, namely credit distribution. The results of the t test in this research can be seen in table 7 below:

Table 7. t test results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	208.631	280.151		.745	.495
	Non Performing Loans (NPL)	25.063	14.948	.165	1.677	.098
	Return on Assets (ROA)	117.426	16.258	.732	7.223	.000
	Capital Adequacy Ratio (CAR)	- 8.421	5.134	-.169	-1.640	.105
	BI Rate	-29.735	30.655	-.097	-.970	.335

a. Dependent Variable: Working Capital Credit

Based on the table above, the results show that:

1) H1 NPL has a negative effect on credit distribution
   Based on the results of the t test in the table above, the independent variable test NPL has a t-count smaller than t-table, namely 1.677 < 1.708 and a significance value of 0.98 which is greater than 0.05. Based on this, Ha = rejected, Ho = accepted. So the first hypothesis which states that NPL has a negative and significant effect on credit distribution is rejected.
2) H2 ROA has a positive effect on credit distribution
   Based on the results of the t test in the table above, the independent variable ROA test has a t-count greater than t-table, namely 7,223 > 1.708 and a significance value of 0.000 is smaller than 0.05. Based on this, Ha = accepted, Ho = rejected. So the third hypothesis which states that ROA has a positive and significant effect on credit distribution is accepted.
3) H3 CAR has a positive effect on credit distribution
   Based on the results of the t test in the table above, the CAR independent variable test has a t-count that is smaller than t-table, namely -1.640 < 1.708 and a significance value of 0.105 is greater than 0.05. Based on this, Ha = rejected, Ho =

accepted. So the second hypothesis which states that CAR has a positive and significant effect on credit distribution is rejected.

4) H4 BI Rate has a positive effect on credit distribution

Based on the results of the t test in the table above, the BI Rate independent variable test has a t-count greater than t-table, namely -0.970 < 1.708 and a significance value of 0.335 greater than 0.05. Based on this, Ha = rejected, Ho = accepted. So the third hypothesis which states that the BI Rate has a positive and significant effect on credit distribution is accepted.

c. F test

The results of the F test in this study are presented in table 8 below:

Table 8. F Test Calculation Results

ANOVA[a]

Model		Sum of Squares	F	Sig.
1	Regression	8,956	13,459	,000b
	Residual	1,164		
	Total	2,060		

a. Dependent Variable: Working Capital Credit

b. Predictors: (Constant), Non Performing Loan (NPL), Return on Assets (ROA), Capital Adequency Ratio (CAR), BI Rate

Based on Table 8 above, it can be seen that this simultaneous test produces a calculated f value of 13,459 > f table (2.50) and a calculated significance of 0.000 < 0.050. This shows that the independent variables, including Non-Performing Loans (NPL), Return on Assets (ROA), Capital Adequacy Ratio (CAR) and BI Rate, together significantly influence credit distribution. So the fifth hypothesis states that NPL, ROA, CAR and BI Rate simultaneously influence credit distribution. Ha is accepted and Ho is rejected so the 5th hypothesis is accepted.

B. Discussion

1. The effect of NPL on credit distribution

The research results show that the Non-Performing Loan (NPL) variable has a positive and insignificant effect on credit distribution. This is shown by the results of hypothesis testing which shows that t-count is smaller than t-table, namely 1.677 < 1.994 and the significance value of 0.98 is greater than 0.05. So the hypothesis that NPL has a significant negative effect on credit distribution is accepted. This result is in accordance with the theory that the higher the NPL level, the lower credit distribution will be.

This means that the NPL level increases, the level of credit distribution will also increase, this is because the NPL that occurs in banks listed on the Indonesian Stock Exchange has still exceeded the maximum limit determined by Bank Indonesia, namely 5%. So even though the NPL that occurred in 2019-2021 experienced an increase that was within the provisions, credit distribution to banks will also continue to increase. This is because the possibility of NPL has a positive effect because the NPL used in the research is NPL for three years, where banks in carrying out credit distribution policies refer to last year's NPL. The bad credit factor certainly cannot be separated from the bank's main activity in the form of lending. However, if there is an increase in the NPL value or problematic credit is still within reasonable limits according to the bank and is still able to be controlled by the bank, the bank will still increase its credit distribution. On the other hand, a small or decreasing NPL value for a bank will not maximize credit distribution, because the bank will still pay attention to other factors such as the availability of funds and capital.

The insignificant influence on NPLs has a tendency that increasing the credit provided has the possibility of large NPLs occurring, but this is a natural occurrence because the increase in NPLs is due to an increase in credit. However, if there is a high NPL value that exceeds the maximum limit stipulated by BI, of course it will limit or even reduce bank credit distribution. NPL also has an insignificant effect on credit distribution, meaning that if the amount of funds disbursed increases each period and the NPL shows a positive direction because the amount of NPL in banking is still at a controllable limit and can be tolerated by Bank Indonesia, namely a maximum of 5%, then credit disbursement will not be reduced but the number will continue to be increased.

2. The influence of ROA on credit distribution

The research results show that the Return on Assets (ROA) variable has a positive and significant effect on credit distribution. This is shown by the results of hypothesis testing which shows t-count is greater than t-table, namely 7,223 > 1.994 and the

significance value of 0.000 is smaller than 0.05. So the hypothesis that ROA has a significant positive effect on credit distribution is accepted.

The results of this research are in line with previous research which shows ROA has a positive and significant influence on credit distribution or ROA has a positive effect on credit distribution to commercial banks. The differences in results between this study and previous research may occur due to differences in the use of years of observation in the ROA variable. And the result is that the ROA variable has a significant effect on credit distribution by banks. This means that when banks offer working capital credit, they look at ROA or last year's profit level. If last year's ROA was high, then the bank is considered to have been effective in using its assets to generate profits. Even if the profits earned are high, there is the possibility for the bank to save profits in the form of retained earnings, thereby allowing the bank to distribute more credit.

3. The influence of CAR on credit distribution

The research results show that the Capital Education Ratio (CAR) variable has a negative and insignificant effect on credit distribution. This is shown by the results of hypothesis testing which shows that t-count is smaller than t-table, namely - 1.640 < 1.994 and the significance value of 0.105 is greater than 0.05. So the hypothesis that CAR has a significant positive effect on credit distribution is rejected.

The results of this research strengthen the results of previous research which stated that CAR had a negative and insignificant effect on bank credit distribution. It is possible that CAR has a negative effect because a bank provides a lot of loans or credit expansion to the public. It is important to remember that credit has risks, namely the risk of not being collected. The greater the credit provided, the greater the credit risk faced by the bank, which can cause the RWA value to increase. When the RWA value is high, the divisor value in the CAR ratio will be higher so that the bank's CAR value can decrease (small). Conversely, if the CAR is high it can indicate that the RWA is low or the credit risk is low. So, a low RWA position indicates that banks are not providing much credit to the public so credit is low.

4. The influence of the BI Rate on credit distribution

The research results show that the BI Rate variable has a negative and insignificant effect on credit distribution. This is shown by the results of hypothesis testing which shows that t-count is greater than t-table, namely -0.970 < 1.994 and the significance value of 0.335 is greater than 0.05. So the hypothesis that the BI Rate has a significant negative effect on credit distribution is rejected.

The results of this research strengthen the results of previous research which stated that the BI Rate had a negative and insignificant effect on bank credit distribution. The BI Rate is a policy interest that reflects the monetary policy attitude or stance set by Bank Indonesia and announced to the public. Movements in the BI Rate are expected to be followed by developments in deposit interest rates, and in turn banking credit interest rates. Ideally, when there is an increase in the BI Rate, it will also be followed by an increase in deposit interest rates and bank credit interest rates and vice versa. Movements in commercial bank interest rates are also influenced by internal factors of the commercial bank itself, for example, net interest margin, Operating Costs, Operating Income (BOPO), Non-Performing Loans (NPL), and the composition of the commercial bank's own credit. The negative relationship between the BI Rate and commercial bank credit distribution in Indonesia means that commercial banks in Indonesia rely entirely on the BI Rate in determining their credit interest rate policies.

The negative and insignificant coefficient value indicates that if the BI Rate interest rate is high, this will directly affect the amount of credit demand at commercial banks. This is because when the BI Rate interest rate was raised by Bank Indonesia, commercial banks immediately responded to the policy in order to reduce pressure on the bank's own margins. When the reference interest rate is increased, commercial banks immediately use the latest bank interest as a reference for their loan and deposit interest. So it can be concluded that when the BI Rate is increased it immediately responds to interest rates at commercial banks.

5. The influence of NPL, ROA, CAR and BI Rate on credit distribution

The simultaneous test aims to determine the influence of all independent variables together on the dependent variable. Simultaneous tests were carried out using the F test with a significance level of 5%. If the Fstatistic probability <0.05 then it can be concluded that together all the independent variables have a significant influence on the dependent variable. The research results show that Non-Performing Loans (NPL), Return on Assets (ROA), Capital Adequacy Ratio (CAR) and BI Rate together significantly influence credit distribution. This is shown by the results of the F test which shows the calculated f value is 13,459 > f table 2.50 and the calculated significance is 0.000 < 0.050. This shows that the independent variables, including Non-Performing Loans (NPL), Return on Assets (ROA), Capital Adequacy Ratio (CAR) and BI Rate, together significantly influence credit distribution. The results of this research strengthen the results of previous research which stated that NPL, CAR, ROA and BI Rate influence credit distribution.

V. CONCLUSION AND SUGGESTIONS

A. Conclusion

Based on the research results above, the following conclusions can be drawn:

1) Non Performing Loans (NPL) have a positive and insignificant effect on credit distribution. This is shown by the results of hypothesis testing which shows t-count is smaller than t-table, namely 1.677 < 1.994 and the significance value of 0.98 is greater than 0.05.
2) Return on Assets (ROA) has a positive and significant effect on credit distribution. This is shown by the results of hypothesis testing which shows t-count is greater than t-table, namely 7,223 > 1.994 and the significance value of 0.000 is smaller than 0.05.
3) Capital Education Ratio (CAR) has a negative and insignificant effect on credit distribution. This is shown by the results of hypothesis testing which shows that t-count is smaller than t-table, namely -1.640 < 1.994 and the significance value of 0.105 is greater than 0.05.
4) The BI Rate has a negative and insignificant effect on credit distribution. This is shown by the results of hypothesis testing which shows that t-count is greater than t-table, namely -0.970 < 1.994 and the significance value of 0.335 is greater than 0.05.

B. Suggestions

Based on the results of this research, the following suggestions are given:

1) For Bank Leaders

a. It is hoped that the results of this research can be used as reference and evaluation material in managing banks better, especially in collecting funds and channeling them back to people in need through banking credit.
b. Banks should pay more attention to the NPL ratio, placing more emphasis on it so that credit distribution continues to increase, so that it is hoped that company profits will also increase.

2) For the public, it is hoped that the results of this research will be useful for users of bank services in knowing the performance of banks related to their role as intermediation institutions and can be used as reference material in determining which banks can be trusted in safe savings and loan activities for public funds.
3) For investors, it is hoped that this research can be used as a reference in making decisions to invest their funds by looking at bank performance in terms of its function.
4) For future researchers, it is hoped that this research can be used as a reference or additional knowledge information for future similar research.

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