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# THE EFFECT OF CREDIT RISK MANAGEMENT, MARKET RISK, LIQUIDITY RISK ON THE FINANCIAL PERFORMANCE OF STATE-OWNED BUSINESS ENTITIES Deni Sunaryo

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# ABSTRACT

This study aims to determine the effect of credit risk management, market risk and liquidity risk on the financial performance of banks listed on the IDX. The population in this study are state-owned banking companies until 2021 with an observation period of 8 years (2014-2021). Thus the total population is 32 (4 banking x 8 years). The analytical methods used in this research are descriptive statistical analysis, multiple linear analysis, and hypothesis testing. The data processing process uses the SPSS version 20 program. Based on the results of the study, it can be concluded that there is a significant influence on credit risk and banking financial performance, there is a significant influence on market risk and banking financial performance, there is a significant influence on liquidity risk and banking financial performance., there is a significant influence between credit risk, market risk, liquidity risk and banking financial performance. Future researchers are expected to conduct further research on the variables of NPL, NIM, and LDR on banking financial performance in a focused manner by increasing the number of samples and extending the research period. So as to be able to provide an overview of the condition of the financial performance of the banking sector more broadly. Further research is expected to expand the object of research, namely not only state-owned banks, but all banks in Indonesia so that research results are better because of the higher element of data representation compared to taking fewer samples.

Keywords: credit risk, market risk, liquidity risk and banking financial performance

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## **1. INTRODUCTION**

Aspects of financial performance is a cyclical picture of every economic result that can be achieved by the company in a certain period through the company's activities to generate profits effectively and efficiently, whose progress can be measured by using an analysis of financial data reflected in the financial statements. The bank's financial statements show the overall financial condition of the bank. From this report, it will be read how the actual condition of the bank. Including strengths and weaknesses. This report also shows the performance of bank management for a period.

Banking conditions must remain healthy in order to continue to perform its functions properly. A healthy bank can be assessed by assessing its financial performance. As explained in Indonesian Regulation No. 6/10/PBI/2004 concerning the Rating System for Commercial Bank Soundness Article 4 paragraph 3. One of the components of the assessment of banking profitability is the *Return On Equity* (ROE) assessment.

Risk relates to the uncertainty that occurs because there is not enough or not enough information about what is happening. All corporate institutions have their own risks. risk management is applied to minimize and overcome the risks that arise. Strategies that can be taken include avoiding risks, reducing the negative effects of risks, accommodating some or all of the consequences of certain risks. To achieve profitability the company must be able to analyze the risks that may occur. Risks that must be assessed consist of 8 (eight) including: credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk, and reputation risk ( Bank Indonesia: SEB No.13/24/DPNP/ 2011). The indicators that can be measured from the eight risks are credit risk, market risk and liquidity risk.

Persero Bank is a bank which is wholly or most of the shares owned by the government of the Republic of Indonesia. According to Kasmir (2014:29), state-owned banks are where both the deed of establishment and the capital are owned by the government. So that the profits of this bank are owned by the government as well.



#### Source : www.idx.co.id data processed

Based on the calculation results, the highest ROE figure is found in BRI bank in 2020, which is 23.08% and the lowest number is MANDIRI bank 11.12%. Bank Indonesia Circular Letter No. 6/23/DPNP Year 2004, the standard value of *Return On Equity* is 12%. This shows that the ability of state-owned banks to earn profits by relying on intimate capital has been running well. The increase in ROE was due to the increase in total net profit which was higher than the total increase in equity from the previous year. While the decline in ROE was due to the total increase in net profit being lower than the total increase in equity from the previous year. ROE fluctuations can also be influenced by external and internal conditions of the company.

External conditions are where elements outside the company are largely controllable and influential in making decisions by managers. Examples such as inflation, interest rates, government policies, while internal conditions are elements within the company that affect the company's performance, for example, such as human resources, financial reports, company regulations and so on. The external factors (inflation) that occurred in Indonesia during the study period are as follows:

Graph 2 Inflation Data for the 2014-2021 period



Source : www.idx.co.id data processed

Based on the graph above, the inflation data for the 2014-2021 period shows high results. "Inflation that occurred was due to an increase in prices as indicated by an increase in the entire index of expenditure groups," said the official published statement of BPS.

The annual inflation rates from 2014 to 2021 are 6.96 %, 3.79%, 4.30%, 8.38%, 8.36%, 3.35%, 3.02%. Previously, the inflation rate throughout 2010 was only 2.78 % or the lowest in the history of

Indonesia. The inflation target for the next 3 years is set through the Regulation of the Minister of Finance PMK No.93/PMK.011/2014 regarding the inflation target for 2019-2021 at 4%, 4% and 3.5 %, respectively, with a plus and minus deviation.

On Graphics. 1 it can be seen that the average ROE of state-owned banks in 2019 to 2021 has a continuous decline from 22.8325 to 17.0675. This is because in 2019 Indonesia's economic performance experienced a slowdown when compared to the previous year. As with the news reported by Bisnis Indonesia in 2020, Totong Sudarto as Junior Sub Manager-Banking System and Systematic Risk Analyst LPS stated that "throughout 2020 Indonesia's economic performance experienced a slowdown when compared to the previous year". Banking profitability in 2020 was under pressure due to a decrease in Net Interest Margin (NIM) and credit write-off fees. The following are studies related to *Return On Equity* (ROE) as a proxy for bank profitability showing different results, including:

The reason for choosing *Return On Equity* (ROE) as a performance measure (Attar, 2014) in his research says that NPL has a negative effect on ROE, the negative effect shown by NPL indicates that the higher bad loans (NPL) will reduce bank income and profits so that ROE will increase. go down. The results of research on the effect of *Net Interest Margin* (NIM) on profitability studied by Wati (2011) showed the results that *Net Interest Margin* (NIM) had a positive effect on profitability. LDR (*Loan to Deposit Ratio*) is an indicator used for liquidity risk. Liquidity risk is the risk caused by the inability of the bank to meet its maturing obligations. So that the higher the LDR, the bank's profit will increase (assuming the bank is able to channel its credit effectively), with the increase in bank profit, the bank's performance will also increase. LDR reflects the ability to channel third party funds on credit to generate income. Wati (2011), in addition Wati (2011) also said that LDR has a positive effect on ROE. In contrast to Attar's (2014) research, LDR does not have a negative effect on ROE.

Based on previous research, there is still a *research gap* regarding the ROE level of state-owned banks that have not provided consistent and satisfactory results. Therefore, this study focuses on research in analyzing the Effect of Credit Management, Market Management, Liquidity Management on Banking Financial Performance for the 2014-2021 period. The variables or ratios used are Credit Risk Management as a proxy for NPL, Market Management as a proxy for NIM, and Liquidity Risk Management as a proxy for LDR. Where this variable applies the independent variable. As for the dependent variable using the bank's financial performance as a proxy using ROE.

The reason for researching risk management factors that affect banking performance as measured by NPL, NIM and LDR is very important because as an effort to minimize the risks that occur, banks must carry out their functions that adhere to the principle of prudence in managing public funds. so that various risks that have the potential to harm the bank can be anticipated from the start and ways to overcome them are sought.

The similarity between current and previous researchers is that they both calculate the financial ratios used to measure the soundness of the bank and then examine whether or not there is an effect on profits. Based on the description of the background of the problem above, there is a phenomenon that occurs, namely fluctuations and even tends to decrease in the level of *Return On Equity* (ROE) of stateowned banks and the existence of a *research gap* from the results of previous studies. so that this research is entitled: " ANALYSIS OF THE

# INFLUENCE OF CREDIT RISK MANAGEMENT, MARKET RISK AND LIQUIDITY RISK ON BANKING FINANCIAL PERFORMANCE LISTED ON THE INDONESIA STOCK EXCHANGE"

## 2. LITERATURE REVIEW Banking Financial Performance

The main function of Indonesian banking is as a collector and distributor of public funds and aims to support the implementation of national development in order to increase equitable distribution of development and its results, economic growth and national stability, towards increasing the standard of living of the people at large (Ariyanto, 2014 in Wati). Banking has a strategic position, namely as a supporter of the smooth payment system, implementation of monetary policy and achieving financial system stability, so that a healthy, transparent and accountable banking system is needed (Usman, 2003 in Wati). Performance (performance) in the dictionary of accounting terms is a quantification in the operation of a business during a certain period. The bank's financial performance is a description of the bank's financial condition in a certain period, both in terms of raising funds and distributing funds. Performance shows something related to the strengths and weaknesses of a company. According to (Fahmi, 2012) financial performance is an analysis carried out to see the extent to which a company has implemented it by using good and correct financial implementation rules. Financial ratios are useful for analyzing the company's financial condition obtained from its operations. Financial ratios are the results obtained from the comparison of the amount with other amounts. Then the financial performance of the bank is an illustration of the achievement of the company's success can be interpreted as the results that have been achieved on various activities that have been determined. An analysis conducted to see the extent to which a company has implemented it by using financial implementation rules properly and correctly. Because performance reflects the company's ability to manage and allocate its sources of funds, performance is an important thing that must be achieved by every company.

## **Return On Equity (ROE)**

ROE is a ratio that shows the company's ability to generate net income by using its own capital and generate net income available to investors. *Return on Equity* is a ratio that shows the extent to which the company manages its own capital (*net worth*) effectively, measuring the level of profit from investments made by the owners of their own capital or shareholders of a company (Sawir, 2009). The ROE shows the profitability of own capital or often called business profitability. According to Kasmir (2014: 328) ROE is a ratio to measure the ability of bank management to manage existing *capital* to get *net income*. ROE is very important for banks, because it is useful for measuring the performance of their own capital owned by investors. This ratio measures how much profit is generated by the company compared to the capital owned by investors. This shows that ROE provides a measure of the rate of return on investment for shareholders. In general, the higher this ratio indicates the higher the level of income earned by investors. The results of the calculation of ROE approaching 1 indicate the more effective and efficient the use of company equity is to generate income, so it is better if the ROE is close to 0 meaning the company is not able to manage the available capital efficiently to generate income. From the statement above, it can be concluded that ROE is a ratio to measure net profit after tax with own capital. This ratio focuses on how the efficiency of the company's operations is translated into profits for the owners of the company.

## Credit Risk (Non-Perfoarming Loan)

Bank Indonesia (PBI) regulation No.13/3/2011 stipulates that the NPL ratio is a maximum of 5% of total loans. If the NPL ratio is below BI provisions, it shows that the bank can manage its credit well and is able to minimize its non-performing loans. On the other hand, an increase in NPL above 5% indicates that the bank is less successful in managing its non-performing loans.

## Market Risk (Net Interest Margin) NIM

A risk arising from the decline in the value of an investment due to movements in market factors. The standard set by Bank Indonesia is above 6%. Net Interest Margin is the ratio used to determine the ability of bank management, especially in terms of processing productive assets so that they can generate net interest. Net interest income is derived from interest income minus interest expense. Meanwhile, earning assets according to BI regulation No. 7/2/PBI/2005, are the provision of Bank funds to earn income, in the form of credit, securities, interbank fund placements, acceptance claims, claims for securities purchased with agreements to resell (*revese). rephuce agreement* ), derivative claims, investments, administrative account transactions and other equivalent forms of provision of funds. According to Kasmir (2014:331), *Interest Margin on Earning assets* is a ratio to measure management's ability to control costs. According to Ryadi in Wati (2011), the *Net Interest Margin* (NIM) shows a bank's ability to generate interest income by looking at the bank's performance in lending.

## Liquidity risk ( Loan to Deposit Ratio )

The minimum LDR limit set by Bank Indonesia for each bank is a maximum of 75%-80%. This figure is considered by BI to be sufficient to encourage economic growth while still meeting the elements of bank health/risk. According to Bank Indonesia Circular Letter No.13/24/DPNP/2011 Liquidity risk is the risk due to the inability of a bank to meet its maturing obligations from cash flow funding sources, and/or from high quality liquid assets that can be used, without disrupting activities and conditions. bank finance. an institution may lose its liquidity if its credit rating drops, experiences unexpected cash outflows, or other events that cause other parties to avoid transactions or provide loans to the institution. A company can also be exposed to liquidity risk if the market it is trading in experiences a decrease in liquidity. According to Slamet Ryadi (2006: 195), LDR is the ratio between the total loans granted and the total Third Party Funds (DPK) that can be collected by the bank. according to Wati (2010) Loan to Deposit Ratio reflects the ability of banks to channel third party funds on credit to generate income.

## Framework

The theoretical framework in this research is:

## The Effect of NPL ( Non Performing Loan ) on ROE ( Return On Equity )

Credit risk management is proxied by NPL where when the NPL has a low value, it shows the bank is in good condition. Ika Permatasari (2014) in her research stated that NPL had a negative effect on ROE, in contrast to research conducted by Sofyan Febby (2016) which stated that NPL had a positive effect on ROE. With this credit risk management, the financial performance of banks will increase. Bank Indonesia

(PBI) No.13/3/2011, stipulates that the maximum NPL ratio is 5% of total loans. If the NPL ratio is below BI provisions, it shows that the bank can manage its credit well and is able to minimize its non-performing loans. On the other hand, an increase in NPL above 5% indicates that the bank is less successful in managing its nonperforming loans.

# The Effect of NIM (Net Interest Margin) on ROE (Return On Equity)

Net Interest Margin is the ratio used to determine the ability of bank management in terms of especially in terms of processing productive assets so that they can generate net interest. Net interest income is derived from interest income minus interest expense. Meanwhile, productive assets according to BI regulation No. 7/2/PBI/2005, are the provision of bank funds to earn income, in the form of credit, securities, interbank fund placements, acceptance claims, claims for securities purchased with agreements to resell (reveese). rephuce agreement ), derivative claims, investments, administrative account transactions and other equivalent forms of provision of funds. The standard set by Bank Indonesia is above 6%. According to Kasmir (2014:331), Interest Margin on Earning assets is a ratio to measure management's ability to control costs. According to Slamet Ryadi in Erna Wati (2011), Net Interest Margin (NIM) shows a bank's ability to generate interest income by looking at the bank's performance in lending.

## The Effect of LDR ( Loan to Deposit Ratio) on ROE ( Return On Equity)

According to Slamet Ryadi (2006) in Erna Wati (2010) Loan to Deposit Ratio reflects the ability of banks to channel third party funds on credit to generate income. LDR is determined by the comparison between the amount of loans granted and the public funds collected, which includes current accounts, shortterm deposits (deposits) and savings. This ratio also states how far the bank's ability to pay credit withdrawals made by depositors by relying on loans as a source of liquidity. The standard LDR value set by BI is in the range of 75%-80%. The greater the loan disbursed, the greater the income received by banks, this is in line with research conducted by Erna Wati (2011) which shows that the Loan to Deposit Ratio (LDR) significant positive effect on banking ROE.

## **Research Hypothesis**

The hypothesis states a logically presumed relationship between variables in the formulation of propositions that can be tested empirically

Based on the framework, the formulation of the hypothesis in this study is as follows:

- H1 : Credit Risk Management as proxied by NPL has a significant and significant effect on Banking Financial Performance.
- H2 : Market Risk Management as proxied by NIM has an effect and is significant on Banking Financial Performance.
- H3 : Liquidity risk management proxied by LDR has an effect and is significant on Banking Financial Performance.
- H4 : Simultaneous Credit Risk Management (NPL) Market Risk (NIM) and Liquidity Risk (LDR) have a significant effect on Banking Financial Performance.

#### **3. RESEARCH METHODOLOGY**

Considering the available data, this research is also included in an empirical study of state-owned banking companies listed on the Indonesia Stock Exchange (IDX) where the company has announced its financial statements in 2014-2021. This research was conducted at state-owned banks listed on the Indonesia Stock

Exchange for the period 2014-2021. While the time used in conducting this research is approximately six months. The population used in this study is all banking companies with state-owned banks registered at Bank Indonesia in the research period 2014-2021. The number of banks that make up the population is 5 banks. following is a list of banks that are the research population at Bank Indonesia. The research sample was taken using purposive sampling method, namely the sampling method based on certain criteria and considerations. Operational variables are needed to determine the types, indicators, and scales of the variables involved in the research. *Non-Perfoarming Loan* (X1), *Net Interest Margin* (X2), *Loan to Deposit Ratio* (X3), Return On Equity (Y). The source of this research data is secondary data obtained from Bank Indonesia. Such as quarterly financial reports published on the Bank Indonesia method used is through literature studies from the Indonesian Banking directory, and reviewing literature books, as well as scientific works such as journals, theses, and theses to obtain a basis. theoretical and comprehensive information about banks, print media, as well as exploring bank financial reports through <u>www.idx.co.id.</u> The data analysis technique used to answer the research is to use an analytical tool, namely statistical *Product and Service Solution* (SPSS) version 20,0. SPSS is a program or software used to process statistical data used to see the effect of Credit Risk, Market Risk, and Liquidity Risk on Banking Financial Performance.

# 4. RESULTS AND DISCUSSION Data analysis Descriptive statistics

The data used in this study comes from the annual financial statements of state-owned banks listed on the Indonesia Stock Exchange. Based on the results of descriptive statistical analysis, table 4.2 below shows the characteristics of the sample used in this study, which includes the number of samples (N), sample mean, maximum value, minimum value and standard deviation ( $\sigma$ ) for each variable.

 Table 4.2 Descriptive Statistical Analysis of Each Variable

 Descriptive Statistics

-		Ν	Minimum	Maximum	mean	Std. Deviation
	NPL	32	1.55	4.30	2.6663	,82947
	NIM	32	4.47	10.77	6.4309	1.49281
	LDR	32	65.44	108.86	87.4606	12.02668
	ROE	32	10.66	43.83	23,0300	8.64736
	Valid N (listwise)	32				

Source: SPSS 20.00 Processing Results (Data processed 2021)

Based on table 4.2, the results of the analysis using descriptive statistics on the NPL variable show a minimum value of 1.55, a maximum value of 4.30, with an average of 2.6653 and a standard deviation of 0.82947. The NPL value at state-owned banks has met the standard set by Bank Indonesia of 5%. The standard deviation value is lower than the average value, which means that the distribution of the existing NPL values is quite good.

NIM variable shows a minimum value of 4.47, a maximum value of 10.77, with an average of 6.4309, and a standard deviation of 1.49281. The NIM value that meets the standards set by Bank Indonesia is above 6%. The standard deviation value is lower than the average value, which means that the distribution of existing NIM values is quite good.

LDR variable shows a minimum value of 65.44, a maximum value of 108.86, with an average of 87.4606, and a standard deviation of 12.02668. The LDR value that meets the standards set by Bank Indonesia is above 80%. The standard deviation value is lower than the average value, which means that the distribution of the existing LDR values is quite good.

ROE variable shows a minimum value of 10.66, a maximum value of 43.83, with an average of 23.0300, and a standard deviation of 8.64736. The standard deviation value is lower than the average value, which means that the distribution of the existing ROE values is quite good.

# Classic assumption test Normality test

The way to detect whether the residuals are normally distributed or not is by using the normal PP *Plot of regression standardized* test and the normality test of the statistical test by looking at the Kolmogrow-Smirnow (KS) value.

The following is the normal PP Plot graph on the normality test:

# **Figure 4.1 Normality Test**





## Source: SPSS 20.0 Processing Results (Data processed 2021)

Based on Figure 4.1 the normality test using the PP Plot above, we can see that the points are spread over the diagonal area and follow the direction of the diagonal line, so the data can be declared normally distributed, so the regression model fulfills the assumption of normality.

To see the last normality test using the Kolmogrof-Smirnow (KS) test, it can be seen in table 4.3 as follows:

# Table 4.3 Normality Test Results One-Sample Kolmogorov-Smirnov Test

		Unstandardized R	esidual
Ν		32	
NT ID (ab	mean	0E-7	
Normal Parameters	Std. Deviation	4.44681940	
	Absolute		,114
Most Extreme Differences	Positive		0.080
	negative	-,114	
Kolmogorov-Smirnov Z		,644	
asymp. Sig. (2-tailed)		,801	
• Test distribution is Norma	-1		

a. Test distribution is Normal.

b. Calculated from data.

# Source: SPSS 20.0 Processing Results (Data processed 2021)

In the non-parametric Kolmogrof-Smirnow statistical test results, it can be seen that the KolmogrofSmirnow value is 0.644 and is not significant at 0.05 (because p = 0.801 > 0.05), it can be stated that the residuals are normally distributed.

# Multicollinearity Test Multicollinearity Test Results Coefficients <sup>a</sup>

Coefficients <sup>a</sup>							
Model		Collinearity Statistics					
		Tolerance	VIF				
	(Constant)						
4	NPL	,798	1.253				
Ľ –	NIM	,795	1,258				
	LDR	,817	1,224				
a. De	ependent Variab	le: ROE					

# **Multicollinearity Test Results**

# Source: SPSS 20.0 Processing Results (Data processed 2021)

To detect the presence or absence of multicollinearity, it is done by looking at the *tolerance value* and *Variance Inflation Factor* (VIF). It is said that there is no multicollinearity if the tolerance  $\geq$ value is 0.1 and the VIF value  $\leq$ is 10. From the table of multicollinearity test results presented in the appendix, it can be seen that the *tolerance value for* NPL is 0.798 > 0.1 and VIF 1.253 < 10, the *tolerance value* is NIM 0.795 > 0.1 and VIF 1.258 < 10, and the *tolerance value of* LDR 0.817 > 0.1 and VIF 1.224 < 10. Thus, it can be concluded that in this study there was no multicollinearity.

# **Autocorrelation Test**

Table 4.5	Autocorrelation	Test	Results
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**Runs** Test

	Unstandardized Residual
Test Value <sup>a</sup>	,50032
Cases < Test Value	16
Cases >= Test Value	16
Total Cases	32
Number of Runs	19
Z	,539
asymp. Sig. (2-tailed)	,590

a. median

## Source: SPSS 20.0 Processing Results (Data processed 2021)

Based on the run test test showing a significance value of 0.590 more than 0.05, it can be concluded that the regression model does not have an autocorrelation problem. The benefit of doing this autocorrelation test is to test whether in the linear regression model there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous year).

# **Heteroscedasticity Test**

# Table 4.6 Heteroscedasticity Test Results

Correlations

			NPL	NIM	LDR	ROE	Unstandardized Residual
Spearman's rho	NPL	Correlation Coefficient Sig. (2-tailed)	1,000	-,359 * .043	,278 ,123	-,670 ** ,000	0.049 ,790
		Ν	32	32	32	32	32
	NIM	Correlation Coefficient	-,359 *	1,000	-,274	,474 **	-,270
		Sig. (2-tailed)	.043	•	,130	,006	,136
		Ν	32	32	32	32	32

LDR	Correlation Coefficient	,278	-,274	1,000	-,659 **	-,096
	Sig. (2-tailed)	,123	,130		,000	,602
	Ν	32	32	32	32	32
ROE	Correlation Coefficient	-,670 **	,474 **	-,659 **	1,000	,435 *
	Sig. (2-tailed)	,000	,006	,000	•	0.013
	Ν	32	32	32	32	32
Unstandardi zed Residual	Correlation Coefficient	0.049	-,270	-,096	,435 *	1,000
	Sig. (2-tailed)	,790	,136	,602	0.013	
Ν		32	32	32	32	32

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS 20.0 Processing Results (Data processed 2021)

Based on the table above, it can be seen that the spearman rank correlation between NPL and U is 0.790, NIM and U is 0.136, and LDR and U are 0.602. So it can be concluded that Spearman's rank is greater than 0.05, it can be ascertained that the model does not have heteroscedasticity symptoms. Multiple Regression Analysis Table 4.7 Multiple Regression Test Coefficients <sup>a</sup>

oe	incients		-				
	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			В	Std. Error	Beta		
	1	(Constant)	31,751	9,123		3,480	,002
		PL	-2,658	1.134	-,255	-2,344	,026
	NIM	-	3.016	,631	,521	4,778	,000
	LDR		-,240	,077	-,334	-3,111	,004

a. Dependent Variable: ROE

Based on the results of data processing for multiple linear regression can show the multiple linear regression equation as follows:

- ROE = 31.751 + -2.685 NPL + 3.016 NIM + -0.240 LDR from the equation, it can be explained:
  - 1. The constant of 31.751 states that if all independent variables are zero, then the dependent variable ROE (Y) will be worth 31.751.
  - The regression coefficient for the NPL variable (X1) which is -2,658 states that if the NPL variable 2. increases by 1 unit, it will cause an increase in ROE of -2,658, if the NIM and LDR variables are considered constant (zero).
  - 3. The regression coefficient for the NIM variable (X2), which is 3.016, states that if the NPL variable increases by 1 unit, it will cause an increase in ROE of 3.016, if the NPL and LDR variables are considered constant (zero).
  - The regression coefficient for the LDR variable (X3) which is -0.240 states that if the NPL variable 4. increases by 1 unit, it will cause an increase in ROE of -0.240, if the NPL and NIM variables are considered constant (zero).  $\$

# Hypothesis test Persian Significance Test (t Test) Table 4.8 Partial Test Results (t Test) Coefficients <sup>a</sup>

menenco						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant) NPL NIM	31,751 -2,658 3.016	9,123 1.134 ,631	-,255 ,521	3,480 -2,344 4,778	,002 ,026 ,000
	LDR	-,240	,077	-,334	-3,111	,004

a. Dependent Variable: ROE

## Source: SPSS 20.0 Processing Results (Data processed 2021)

 $Y = a + (b_1X_1 + b_2X_2 + b_3X_3 + e)$ 

ROE = 31.751 + -2.658 NPL + 3.016 NIM +-0.240 LDR Based on

table 4.7 the results of SPSS processing 20.0

- 1. The value of ( $t_{hitung}$ -2.344  $t_{tabel}$ < 2.048) and significant < 0.50 (0.026 < 0.05) then Ho is accepted, so it can be concluded that *Non-Perfoarming Loans* (NPL) have a partial negative effect on Banking Financial Performance.
- 2. Value  $t_{hitung} > t_{tabel}$  (4.778 > 2.048) and significant < 0.50 (0.000 < 0.05) then H0 is rejected, so it can be concluded that Net *Interest Margin* (NIM) has a partial effect on Banking Financial Performance.
- 3. The value of ( $t_{hitung}$ -3.111  $t_{tabel}$ < 2.048) and significant < 0.50 (0.004 < 0.05) means that H0 is accepted, so it can be concluded that the Loan *to Deposit Ratio* (LDR) partially has a negative effect on Banking Financial Performance.

# Simultaneous Significance Test (F Test)

Table 4.9 Simultaneous Test Results (Test F)

ANOVA <sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression Residual	1705,081 613,000	3 28	568,360 21,893	25,961	,000 <sup>b</sup>
	Total	2318,081	31			

a. Dependent Variable: ROE

b. Predictors: (Constant), LDR, NPL, NIM

## Source: SPSS 20.0 Processing Results (Data processed 2021)

Based on the table above, the significance value for the effect of X1 X2 and X3 simultaneously on Y is 0.000 < 0.05 and the calculated F value is 25.961 > 2.39, so it can be concluded that H4 is accepted which means there is an effect of X1 X2 and X3 simultaneously on the Y.

# Coefficient of Determination ( $R^2$ ) Table 4.10 Calculation of the Determination Coefficient ( $R^2_{i}$ , Model Summary <sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson				
1	,858 <sup>a</sup>	,736	,707	4.67898	1,776				
a Dradictarray (Constant) LDD NDL NUM									

a. Predictors: (Constant), LDR, NPL, NIM

b. Dependent Variable: ROE

Based on the table above, it can be seen that the value of R square is 0.736, this means that the effect of the X1 X2 and X3 variables simultaneously on the Y variable is 73%. The variation of the dependent variable (ROE) can be explained by the variation of the three independent variables, namely NPL, NIM, and LDR. While the remaining 27% is explained by other factors outside the analyzed regression model.

# DISCUSSION

## The Influence of Non-Perfoarming Loans (NPL) on Banking Financial Performance

Based on the calculation results of SPSS Version 20, the t-count is -2.344 with a significance value of 0.026 <0.05 and based on the t-distribution table, the t-table is 2.048 and the t-count is -2.344 2.048. So it  $H 0_1$  was rejected and  $Ha_1$  accepted, so it can be explained that *Non-Perfoarming Loan* (NPL) X1 has a significant partial effect on Banking Financial Performance (Y) at State-Owned Banks on the Indonesia Stock Exchange 2014-2021. The results of this study have a negative influence on the financial performance of banks. This shows that the increasing number of non-performing loans makes banks do not dare to increase their lending, especially if third party funds can be achieved optimally, it can disrupt the liquidity of a bank. Therefore, the greater the non-performing loans reflected by the NPL value, the smaller the credit that can be extended by banks to the public given the credit risks that arise. NPL is the loss of opportunity to earn *income* from loans, thereby reducing profits and reducing the ability to provide credit.

NPL has a negative and significant effect on financial performance as well as Bank Indonesia regulations that require each bank to maintain an NPL with a maximum of 5%, so most banks have an NPL of less than 5% which indicates that these banks experience low credit risk. According to Erna Wati (2011), lending must always be selective and careful in choosing loan debtors so that the credit that has been distributed can avoid bad credit. In addition, it is also necessary to carry out strict supervision on existing loans and minimize bad loans so that the NPL value is less than 5%.

The results of this study do not support the results of research conducted by Rida Hermina, and Edy Suprianto (2013) which states that NPL has no significant effect on Banking Financial Performance. However, it supports research conducted by Erna Wati (2011), Dini Attar, Islahuddin, and M. Shabri (2014), and Sofyan Febby Henny Putri (2016) which states that NPL has a negative and significant influence on banking financial performance.

### Effect of Net Interest Margin (NIM) on Banking Financial Performance

Based on the calculation results of SPSS Version 20, the t count is 4.778 with a significance value of 0.000 < 0.05 and based on the t distribution table, the t table is 2.048 and the t count is 4.778 > 2.048, so it  $H_{0_2}$  is rejected and  $Ha_2$  accepted, so it can be explained that the *Net Interest Margin* (NIM) X2 partially has a significant effect on banking financial performance (ROE) Y. The results of the study find that *Net Interest Margin* (NIM) has a positive influence on banking financial performance. Therefore, in order to increase ROE, banks must be able to continuously increase the amount of NIM. This can be done through bank interest income or an increase in *feebased income*, which can increase ROE.

This research is in line with previous research conducted by Rafanomezantsoa, Sumarni Marmono Singgih (2016) and Erna Wati (2011) which stated that NIM had a positive effect on ROE.

# The Effect of Loan to Deposit Ratio (LDR) on Banking Financial Performance

Based on the calculation results of SPSS Version 20, the t-count is -3.111 with a significance value of 0.004 <0.05 and based on the t-distribution table, the t-table is 2.048 and the t-count is -3.111 2.048, so it is  $H_{03}$ rejected and  $Ha_{3}$ accepted. So it can be explained that *Loan to Deposit Ratio* (LDR) X3 has a significant effect on banking financial performance (ROE) Y. The results found that *Loan to Deposit Ratio* (LDR) X3 has a negative effect on banking financial performance. This means that the higher the LDR ratio, the lower the ROE. This is not in accordance with the theory put forward by Taswan (2010: 245) that in an effort to maintain high liquidity, the profit will be low, on the contrary if the liquidity is low, the profit will be high. 78%-110% range. This can be done by collecting maximum savings and balanced with optimal lending without ignoring the applicable rules to avoid bad loans so that maximum loan interest income is obtained.

This study is in accordance with research conducted by Yulia Qurota Ayuni (2017), Rida Hermina and Edy Supratno (2013) and Rafanomezantsoa, Sumarni Marmono Singgih (2016) who said that LDR had a significant negative effect on ROE.

## 5. CONCLUSION

Based on the results of the analysis of research and discussions that have been carried out previously, it can be concluded that *Non-Perfoarming Loans* (NPL), *Net Interest Margin* (NIM) and *Loan to Deposit Ratio* (LDR) on Banking Financial Performance are obtained as follows, *Non-Perfoarming Loan Variables* (NPL) has a negative and significant effect on Banking Financial Performance. Therefore, the first hypothesis ( $H_{1i}$ accepted, Variable *Net Interest Margin* (NIM) has a positive effect on Banking Financial Performance. Therefore, the second hypothesis ( $H_{2i}$ accepted. The *Loan to Deposit Ratio* (LDR) variable has a significant negative effect on Banking Financial Performance. Therefore, it is stated that the third hypothesis ( $H_{3i}$ accepted. There is a significant effect between NPL, NIM, and LDR together on the Financial Performance of Banking, so the fourth hypothesis is ( $H_{2i}A_{i}$ accepted. Based on the results of the research concluded above, the researcher would like to provide suggestions for further research. The suggestions are as follows, the next researcher is expected to conduct further research on the variables of NPL, NIM, and LDR on banking financial performance in a focused manner by increasing the number of samples and extending the research period. So as to be able to provide an overview of the condition of the financial performance of the banking sector more broadly. Further research is expected to expand the object of research, namely not only state-owned banks, but all banks in Indonesia so that the research results are better because of the higher element of data representation compared to taking fewer samples. Further research is expected to increase the number of independent variables that are thought to have an influence on banking financial performance.

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- Bank Indonesia (PBI) No.13/3/2011, stipulates that the maximum NPL ratio is 5% of total loans <u>www.idx.co.id</u> accessed on March 29, 2022 <u>www.sahamok.com</u> accessed on March 29, 20 22