

Non Performing Loan as Mediation of the Effect Capital Adequacy Ratio and Loan to Deposit Ratio on Profitability



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ABSTRACT: This study aims to examine the effect of CAR and LDR on ROA with NPL as a mediating variable at state-owned banks for the period 2015 to 2022. The sample for this study was 4 (four) state-owned banks, namely BRI, BNI, Mandiri and BTN. With an observation period of 8 years, the sample for this study was 32. This study used Partial Least Square with the SmartPLS 3 program. Of the 7 hypotheses, the results showed that only 2 hypotheses were accepted, namely the effect of CAR on ROA and the effect of LDR on NPL. Indirect effect, namely NPL as a mediating effect of CAR on ROA is not proven or rejected. Likewise, the indirect effect of LDR on ROA with NPL as a mediating variable is also rejected.

KEYWORDS: Capital Adequacy Ratio, Loan to Deposit Ratio, Non Performing Loan, Return on Assets

INTRODUCTION

In the current era of globalization, economic development cannot be separated from the banking sector, because banking has an important role in economic growth. This is because the banking sector has a main function, namely as a financial intermediary between parties who have funds and those who need funds (Nusantara, 2009). Public trust in saving and borrowing funds at banks is strongly influenced by the information they obtain about the quality and performance of the bank concerned, with one of the indicators assessing the soundness of the bank. If the bank is in good health, then this condition needs to be maintained. If the bank is in a poor or unhealthy condition, then it is necessary to have an attitude or action to improve the situation because through the bank's soundness level it will be able to show how the bank's performance is. One that can be used in measuring the performance of a bank is to look at the bank's profitability. Profitability is the bank's ability to generate profits effectively and efficiently. Broadly speaking, the profit generated by the company comes from sales and investment income made by the company. Looking at the existing conditions in the last decade, banking companies, especially those in Indonesia, are experiencing very rapid business development, both in terms of business volume, mobilization of funds from the public and the level of profitability obtained.

The profitability of a banking company shows the income that a company can generate in one or every period. Therefore it can be concluded that profitability is an aspect that reflects the ability of each company to generate profits, where the company referred to in this study is a banking company. As explained above, the profits obtained by each company will greatly affect the continuity of the company concerned, both in the present and in the future. Bank Indonesia also prioritizes the value of a bank's profitability as measured by Return on Assets (ROA) because Bank Indonesia prioritizes the value of a bank's profitability as measured by assets whose funds mostly come from public savings so that ROA is more representative in measuring the level of bank profitability (Dendawijaya, 2005).

ROA is important for banks because ROA is used to measure a company's effectiveness in generating profits by utilizing its assets. ROA focuses on the company's ability to earn profits from company operations. Another performance measurement is Return on Equity (ROE). ROE only measures the return earned from the company owner's investment in the bank business. The level of profitability can also be influenced by the adequacy of capital owned by banks (Hendra, 2016). One of the factors for a company to be able to operate is to have sufficient capital to finance the company's operational activities. The owned capital can also be used to bear risks and losses experienced by banks.

The adequacy of a bank's capital affects whether the bank operates or not, and is related to whether or not a bank is trusted by users of bank services. Capital adequacy is a measure that determines if a bank has adequate capital that offers protection against the risks associated with offering bank credit and other financial ventures. Capital adequacy in this study is proxied through the Capital Adequacy Ratio (CAR). CAR is an indicator of a bank's ability to cover decreased activity as a result of bank losses caused by risky assets. The greater the CAR ratio, the lower the possibility of troubled banks and can also increase public trust. The lower the probability of a bank having problems, the greater the level of profitability of a bank. Apart from CAR, liquidity is also a measure of bank performance.

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One measurement for calculating bank liquidity is the Loan to Deposit Ratio (LDR), which is how much bank funds are released into credit. Bank Indonesia provisions regarding the Loan to Deposit Ratio (LDR) between 80% and 110% (Werdaningtyas, 2002). The higher the Loan to Deposit Ratio (LDR), the bank's profit will increase (assuming the bank is able to extend its credit effectively), with the increase in bank profits, the bank's performance will also increase. The size of the Loan to Deposit Ratio (LDR) of a bank will affect the performance of the bank. Research on the Loan to Deposit Ratio (LDR) shows mixed results. Research conducted by Suyono (2005), Merkusiwati (2007) shows the results that the Loan to Deposit Ratio (LDR) has a positive and significant effect on Return On Assets (ROA). This is different from the results of research conducted by Werdaningtyas (2002) and Yuliani (2007) which show that the Loan to Deposit Ratio (LDR) has a positive and insignificant effect on Return On Assets (ROA).

Research on CAR and LDR on profitability has been studied by several researchers before. The results of research conducted by Akhtar et al. (2011), Suardita & Putri (2015) state that CAR has a positive effect on ROA, but this is different from research by Alper & Anbar (2011), and Negara & Natalia (2016) which shows that CAR has a negative effect on ROA. The results of research conducted by Almazari (2014) and Purnamawati (2014) show that LDR has a positive effect on ROA, but in Majidi's research (2017) it is stated that the LDR variable has a negative effect on ROA.

Apart from capital adequacy, profitability can also be affected by credit distribution activities (Trisna, 2017). The banking industry is an industry that is subject to risk, especially because it involves managing public money and playing it in the form of various investments, such as extending credit, purchasing securities and investing other funds. The lower the credit risk given, the more the bank will experience profits, conversely if the level of credit risk given is high, the bank will experience losses due to the rate of return on bad loans. If the debtor cannot repay the credit loan, it will pose a risk of non-performing loans (NPL). Non-performing loans or NPLs can be interpreted as loans that experience repayment difficulties due to intentional factors and or due to external factors beyond the ability of the debtor to control. Non-performing credit describes a situation where the approval of credit returns is at risk of failure, even tends to lead to or experiences potential losses. The understanding that problem loans are always due to customer error is wrong. Non-performing loans can be caused by various things originating from customers, internal conditions and lenders.

The results of research related to the effect of NPL on performance (ROA) show results that have a positive effect and some have a negative effect. Based on the research by Ogboi & Unuafe (2013), Septiarini & Ramantha (2014) showed that NPL has a negative effect on ROA, but research by Oktaviantari & Wiagustini (2013) shows that NPL has a positive effect on ROA. The research results of Febrianti (2012) and Yatiningsih & Chabachib (2015) show that company size has a positive effect on ROA, but in research by Said & Tumin (2011), Niresh & Velnampy (2014) states that company size has a negative effect on ROA.

There are inconsistencies in the results of previous studies, so this study uses NPL, namely credit risk as a mediating variable. The reason the researcher chose credit risk as the mediating variable is because in extending credit, banks are inseparable from credit risk, so it can be assumed that if credit risk is high, it will have an impact on capital adequacy and lending so that bank ROA decreases. Therefore it is necessary to do research again by adding a mediating variable, namely credit risk which is thought to be able to mediate the relationship between CAR and LDR variables on ROA. The objects of this study are 4 (four) state-owned banks, namely BRI, BNI, BTN, and Mandiri with observation periods from 2015 to 2022. State-owned banks are state-owned banks established to collect funds from the public in the form of savings and distribute them in credit form. In providing credit, this bank covers all levels of society. The existence of this bank is expected to help the community in running their business as well as helping the government to increase national economic growth.

LITERATURE REVIEW

Profitability

The main objective to be achieved by banks is to obtain maximum profit in order to meet all costs of the bank's operational activities. These profits can be used for the welfare of owners, employees, improve product quality and expand. To measure the level of profit, profit ratios or profitability ratios are used. The profitability ratio is a ratio to assess a bank's ability to make a profit. This ratio also provides a measure of the effectiveness of a bank's management. Profitability is the ability of a company to generate profit. Companies that have good profits will be the target of investors. Investors will of course invest their funds in companies with good profits in order to benefit from the funds invested. In the banking sector, profitability is used to measure the performance of the bank. Profitability is the main defense in a bank against unexpected losses, such as strengthening the capital position and increasing future profitability through retained earnings investment.

Profitability is the most appropriate indicator to measure the performance of a bank (Syofyan, 2002). The generally used measure of profitability in the banking industry is Return On Equity (ROE) and Return On Assets (ROA). Return On Assets (ROA) focuses on a company's ability to earn earnings in its operations, while Return On Equity (ROE) only measures the return earned from the company owner's investment in the business (Siamat, 2002). Henceforth in this study using ROA as a measure of banking performance. The results of research on the effect of changes in Capital Adequacy Ratio (CAR) to Return On Assets (ROA) show different results. Research by Werdaningtyas (2002), Suryono (2005), Markusiwati (2007), Yuliani (2007), Rinawan (2009) shows

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that the Capital Adequacy Ratio (CAR) has a positive and significant effect on Return On Assets (ROA). This is different from the results of research conducted by Sarifudin (2005) which shows that the Capital Adequacy Ratio (CAR) has a negative and insignificant effect on Return On Assets (ROA).

Some related research with Return On Assets (ROA) as a proxy of bank profitability also shows results different (Sudiatno & Suharmanto, 2011). Based on research conducted by Prasnanugraha (2007), Non Performing Loans (NPL) indicates that there is influence positive for ROA. Purnamadewi (2010) examines that NPL has a positive effect however not significant to the variable Return on Assets (ROA). The results of these studies are contradictory with research conducted by Nusantara (2009), Putri (2013), and Hardiyanti (2012) which shows that there is an influence NPL negative significant to ROA. With there is a research gap from the research of Prasnanugraha (2007), Purnamadewi (2010), Nusantara (2009), Putri (2013), and Hardiyanti (2012) then it is necessary conducted further research on the effect of NPL on ROA.

Capital Adequacy Ratio (CAR)

Capital in the bank has a very important role. Capital adequacy can be measured using the Capital Adequacy Ratio (CAR). It is important for management to pay attention to the amount of CAR that is owned so that the bank does not lack funds and also does not have excess funds. Capital is the main source of financing for bank operations and also acts as a buffer for possible risk of loss. The greater the capital owned, the stronger the bank is in facing unexpected risks so that the bank can increase public trust (Anjani & Purnawati, 2014). However, a bank that has a CAR that is too high can result in idle funds, namely there are many idle funds that cannot be utilized by the bank's management.

The Capital Adequacy Ratio is a ratio that shows how far all bank assets that contain risk (loans, investments, securities, claims at other banks) are also financed from the bank's own capital funds in addition to obtaining funds from sources outside the bank, such as funds from the public, loans, and others. CAR is an indicator of a bank's ability to cover the decline in its assets as a result of bank losses caused by risky assets. CAR is the ratio between own capital and Risk Weighted Assets (RWA). CAR is a capital ratio that shows the bank's ability to provide funds for business development purposes and accommodate the risk of loss of funds caused by bank operations. CAR shows the extent to which a decrease in Bank Assets can still be covered by the available Equity of the bank, the higher the CAR the better the condition of a bank (Tarmidzi, 2003).

Capital Adequacy Ratio (CAR) is a ratio that shows how far across bank assets that contain risk (credit participation, securities, bills at the bank others) to be financed from own capital funds (Asmi, 2014). In addition to obtaining funds from outside sources, such as funds society, loans (debt) and others Dendawijaya (2005). Results of research on influence Capital Adequacy Ratio (CAR) to profitability studied by Prasnanugraha (2007) showed that there is a significant influence negative between CAR to ROA. Results Prasnanugraha's (2007) research is contradictory with research conducted by Hardiyanti (2012), Putri (2013), Sudiyatno (2013) indicating that there is an influence significantly positive between CAR and ROA. With the research gap from research by Pransnanugraha (2007), Hardiyanti (2012), Putri (2013), and Sudiyatno (2013) then need to do further research influence CAR to ROA.

Loan to Deposit Ratio (LDR)

Liquidity management is one of the problems in bank operations, this is because most of the funds managed by banks are funds from the public which are short term in nature and can be withdrawn at any time. The liquidity of a bank means that the bank has sufficient sources of funds available to fulfill all obligations (Siamat, 2005). The liquidity ratio used in banking is measured from the Loan to Deposit Ratio (LDR). LDR (Loan to Deposit Ratio) is the ratio used to measure the composition of the amount of credit given compared to the amount of public funds and own capital used (Kasmir 2014). According to Dendawijaya (2009) Loan to Deposit Ratio (LDR) states how far a bank's ability to pay back withdrawals made by customers by relying on credit provided as a source of liquidity.

According to Pompong (2010) the higher the LDR, the the higher the profit rate company due to placement of funds in the form of more credit given increase. Vice versa the lower the LDR will be lower company profit rate due placement of funds in the form of credit distributed is decreasing. According to Iswi (2010:57) explain that the magnitude of the LDR will be effect on profits through credit creation. High LDRs identify planting large third party funds credit form. Great credit will increase profits. Meanwhile, according to Stephanus (2013:85) explains that the greater the amount of credit given by the bank, it will be lower the level of liquidity of the bank concerned, but on the other hand, the greater the number credit given is expected the bank will get a high return too.

The results of Ni Kadek' research Citra Dewi et al. (2015) shows that The Loan to Deposit Ratio (LDR) has an effect positive and significant to Return On Assets (ROA). That is, the higher the LDR the profit level will increase company due to placement of funds in the form of more credit given increases, resulting in interest income will also increase. Thereby also vice versa, the lower the LDR will be the lower the profit rate company due to placement of funds in the form of credit being extended decreased, resulting in interest income decreasing too. According to Pompong (2010) revealed that the higher the LDR, the company's ROA will increase, whereas when LDR goes down then ROA will tend decrease.

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Non-Performing Loan (NPL)

Asset valuation must be in accordance with the regulations stipulated by Bank Indonesia by comparing the classified earning assets with earning assets. Then the ratio of allowance for possible losses on earning assets to earning assets is classified. This ratio can be seen from the balance sheet which has been reported regularly to Bank Indonesia. Each investment of bank funds in productive assets is assessed for its quality by determining its collectibility, namely whether it is current, substandard, doubtful or even loss. The assessment of the soundness level of earning assets is based on an assessment of the quality of quantified earning assets and is based on two ratios, namely the ratio of the ratio of classified earning assets to the total earning assets and the ratio of the ratio of reserves for possible losses to classified assets.

Earning assets function to obtain the bank's main income. As the main source, this asset also has a big risk. Potential losses caused by poor collectibility of these assets can lead to bankruptcies, therefore banks are required to establish Allowance for Earning Assets (PPAP) in the form of general reserves and special reserves to cover the risk of possible losses. The ratio used to represent aspects of asset quality is a non-performing loan. Non Performing Loan (NPL) shows the ability of bank management to manage non-performing loans provided by banks. So that the higher this ratio, the worse the quality of bank credit which causes the number of non-performing loans to increase, the greater the probability that a bank is in a problematic condition. Investors are less interested in buying bank shares with high credit risk because it will negatively affect profitability. This is corroborated by empirical evidence conducted by Purwoko & Sudiyatno (2013), and Singh (2015) showing results that NPL has a negative effect on profitability. The results of research conducted by Ozurumba (2016) examined the Impact of Non-Performing Loans on the Performance of Selected Commercial Banks in Nigeria states that Non Performing Loans has an inverse relationship to ROA. Then the results of Lata's research (2014) which examined Non Performing Loan and Its Impact on Profitability of State Owned Commercial Banks in Bangladesh states that Non Performing Loans affect bank profitability. While Eston et al (2016) who researched about Effect Of Non Performing Loans And Other Factors On Performance Of Commercial Banks In Malawi stated that the ratio of Non-Performing Loans has a significant effect on bank performance proxied by ROA.

RESEARCH METHOD

This study uses a quantitative approach with the Partial Least Square (PLS) analysis tool, a type of causality research where this type aims to examine the effect of the independent variables on the dependent variables. According to (Sugiyono, 2018), a quantitative approach is an approach in research that uses data in the form of numbers and is analyzed with statistics. This study will analyze the effect of Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) on Return on Assets (ROA) with Non Performing Loans (NPL) as a mediating variable.

This research was conducted at state-owned banks consisting of Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Negara Indonesia (BNI), and State Savings Bank (BTN) registered with the Financial Services Authority (OJK) for the period 2015 – 2022. The data was taken is secondary data in the form of annual reports. The population in this study are state-owned banks registered with the Financial Services Authority (OJK) in 2015-2022. Sampling in this study used a saturated sample technique, namely all state-owned banks consisting of 4 banks, namely Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Negara Indonesia (BNI), and Bank Tabungan Negara (BTN).

This study has dependent variable, mediating variable, and independent variable. The dependent variable in this study is bank profitability. Bank profitability can be measured by Return of Assets (ROA) which is one of the ratios to measure the effectiveness of the company in generating profits by utilizing the total assets it has. The mediating variable used in this study is Non Performing Loans (NPL). According to Siamat (2005), credit risk is a risk due to the failure or inability of the customer to return the amount received from the bank and the interest according to a predetermined or scheduled period. NPL reflects credit risk, the smaller the NPL, the smaller the credit risk borne by the bank. The independent variables used in this study include Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR).

In order to test the effect of Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) on Return on Assets (ROA) with Non Performing Loans (NPL) as intervening variables, the data obtained from the research results are processed using Partial Least Square (PLS). In PLS, the analytical method of Measurement Model Analysis or Outer Model and Structural Model or Inner Model is used. The outer model analysis consist of convergent validity, determinant validity, and reliability test. The inner model describes the relationship of one variable with other variables. The structural model is evaluated by looking at the percentage of variance explained by the R squared value which is a goodness-fit model test. This statement is in accordance with the explanation from Dewi and Frianto (2013), Hamdani & Nupikso (2016), Ferial et al (2016), and Ghozali & Latan (2015).

RESULTS AND DISCUSSIONS

Descriptive Statistics

Descriptive Statistics is part of the data analysis which provides an initial description of each variable used in the study. The number of variables used in this study are 4 (four) variables. The dependent variable used is Return on Assets (ROA), the independent variables are Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR). while the intervening variable is Non Performing

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Loan (NPL). Based on statistical data obtained through SmartPLS 3.0 software, a descriptive analysis was carried out to provide an overview of the data in this study. Descriptive analysis in this study was carried out through the average (mean), median, minimum, maximum, and standard deviation values of each research variable. The following is a description of the research variables through descriptive statistics based on the results of data processing with SmartPLS 3.0 software.

Table 1. Descriptive Statistics

Variable	N	Mean	Med	Min	Max	Std. Deviation
CAR	32	20.156	20.000	17.000	25.000	1.889
LDR	32	90.312	88.000	78.000	114.000	8.405
NPL	32	1.219	1.000	1.000	3.000	0.483
ROA	32	2.531	3.000	1.000	4.000	1.030

Source: Results of SmartPLS 3.0 software processing

In table 1, 32 observation data were obtained from a research period of eight years, from 2015 to 2022, with a total sample of 4 state-owned banks, namely BRI, BNI, Mandiri and BTN. The results of data processing using descriptive statistics show that the minimum value for the CAR variable is 17%, while the maximum value is 25%. The average for the CAR variable is 20.156, the median value is 20, and the standard deviation is 1,889.

In the LDR variable, the minimum value shows 78% and the maximum value is 114%. The average value for the LDR variable is 90.312, the median value is 88 and the standard deviation is 8.405. The NPL variable has a minimum value of 1% and a maximum of 3%. The average value is 1.219, and the median value is 1, and has a deviation of 0.483. For the ROA variable, the minimum value is 1% and the maximum value is 4%. The ROA variable has an average value of 2.531, a median of 3, and a standard deviation of 1.030.

Figure 1 below shows the loading factor values for the CAR, LDR, NPL, and ROA variables.

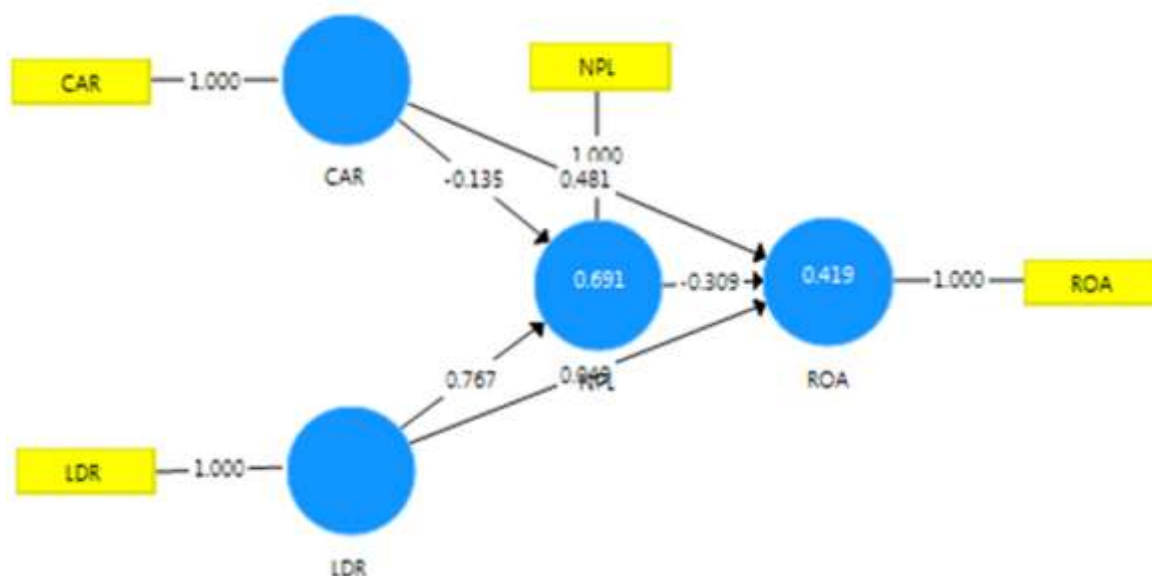


Figure 1. Loading Factor

Table 2. Loading factor value

	CAR	LDR	NPL	ROA
CAR	1,000			
LDR		1,000		
NPL			1,000	
ROA				1,000

Source: Results of SmartPLS 3.0 software processing

The figure and tables show the results of data processing with the PLS Algorithm. In the table it is known that all indicators have met the criteria of a loading factor value, which is more than 0.70. So that all CAR, LDR, NPL, and ROA indicators are declared valid.

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Table 3. Average Variance Extracted (AVE)

	<i>Average Variance Extracted (AVE)</i>
CAR	1,000
LDR	1,000
NPL	1,000
ROA	1,000

Source: Results of SmartPLS 3.0 software processing

Based on this table it can be concluded that all variables meet the AVE criteria of the expected value which is above 0.50. The results of processing the data can be seen that all variables have the highest value, namely 1,000. So it can be concluded that all variables are declared valid.

Table 4. Discriminant validity

	CAR	LDR	NPL	ROA
CAR	1,000	-0,408	0,448	0,600
LDR	-0,408	1,000	0,822	-0,402
NPL	-0,448	0,822	1,000	-0,485
ROA	0,600	-0,402	-0,485	1,000

Source: Results of SmartPLS 3.0 software processing

Discriminant validity can be said to be good if the loading value on the variable in question is the largest compared to the loading value with other constructs. In discriminant validity between each indicator tested must have the same value and must have the greatest value. The discriminant validity test in the table shows that the correlation loading value of each variable is greater than the cross loading correlation value of other latent variables. In this table, each of the targeted indicators has a loading value of 1,000. So it can be concluded that all indicators in this study were declared valid.

Table 5. Cronbach's Alpha

	<i>Cronbach's Alpha</i>
CAR	1,000
LDR	1,000
NPL	1,000
ROA	1,000

Source: Results of SmartPLS 3.0 software processing

Table 6. Composite Reliability

	<i>Composite Reliability</i>
CAR	1,000
LDR	1,000
NPL	1,000
ROA	1,000

Source: Results of SmartPLS 3.0 software processing

The reliability test is strengthened by Cronbach's Alpha and Composite Reliability with an expected value of above 0.70 for all variables. In the table it can be concluded that the variable has high reliability because its value is above 0.70. So it was concluded that the data used was reliable.

The structural model is evaluated by looking at the percentage of variance explained by the R^2 value which is a goodness-fit model test. This statement is in accordance with the explanation from Dewi & Frianto (2013), Hamdani and Nupikso (2016), Ferial et al (2016), and Ghozali & Latan (2015, 41). The coefficient of determination is used to measure how far the model's ability to explain variations in the dependent variables. If the value of R^2 is small, then the ability of the independent variables to explain variations in the dependent variable is very limited. Conversely, a value close to one means that the independent variables provide almost all the information needed to predict the dependent variables. Hair et al (2011) in Ghozali & Latan (2015, 81) states that an R^2 value < 0.25 indicates a weak model, an R^2 value $> 0.25 - 0.75$ indicates a moderate model, and an R^2 value > 0.75 indicates a moderate model. strong. The following is a table showing the value of R^2 .

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Table 7. Determinant Coefficient (R²)

	<i>R Square</i>
NPL	0.691
ROA	0.419

Source: Results of SmartPLS 3.0 software processing

Based on the test results, the coefficient of determination of NPL shows an R² value of 0.691 or 69.1%, which means that CAR and LDR in explaining the variance of NPL is 69.1% and the remaining 31.9% is explained by other factors. Meanwhile, ROA has an R² value of 0.419 or 41.9%, indicating that the ability of CAR, LDR and NPL to explain the variance of ROA is 41.9% and the remaining 58.1% is explained by other factors.

The hypothesis test was analyzed using SmartPLS 3.0 software with a structural model that has been tested and calculated by bootstrapping as follows:

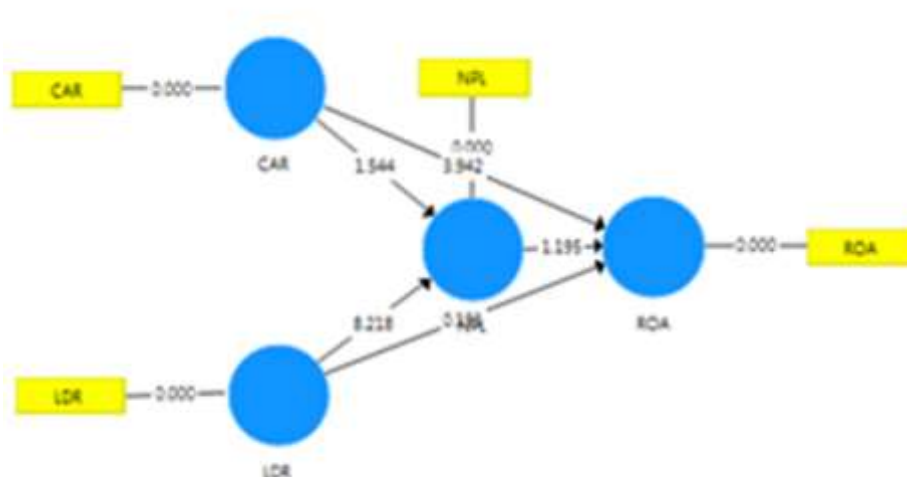


Figure 2. Structural Model of Bootstrapping Results

Testing the hypothesis in this study was carried out by looking at the t-statistic value on the output path coefficient (Mean, STDEV, t value), after the data was processed using bootstrapping then compared with the t-table with the significance level used (5%). This study also uses the P-value as a reference to see the significance level of the results of the hypothesis test. If the value of P - value ≤ 0.05 , then the error can still be tolerated. However, if the P - value > 0.05 , then errors cannot be tolerated or still require consideration. In a research study, hypothesis testing is stated to be influential or accepted if t count $>$ t - table, while hypothesis testing is declared to have no effect or rejected if t count $<$ t - table. Meanwhile, to find out the nature of the influence of the independent variable on the negative or positive dependent variable, it can be seen through the value of the original sample (Original Sample), that is, if the original sample value shows a negative value, it has a negative effect, if it shows a positive value, it has a positive effect (Ghozali, 2015). The following is the result of the bootstrapped path coefficient.

Table 8. Path Coefficient Results

	<i>Original Sample (O)</i>	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	<i>P Values</i>
CAR → NPL	- 0.135	-0.138	0.082	1.639	0.102
CAR → ROA	0.481	0.477	0.131	3.664	0.000
LDR → NPL	0.767	0.747	0.094	8.150	0.000
LDR → ROA	0.049	0.044	0.260	0.188	0.851
NPL → ROA	-0.309	-0.306	0.272	1.137	0.256
CAR → NPL → ROA	0.042	0.046	0.054	0.778	0.437
LDR → NPL → ROA	-0.237	-0.229	0.212	1.116	0.265

Source: Results of SmartPLS 3.0 software processing

Based on the table, there are arrows that have symbols related to the relationships used in PLS. In the table, the bootstrapping results show that the original sample CAR on NPL is -0.135, indicating that CAR has a negative influence, meaning that the higher the CAR, the lower the NPL. Meanwhile, the results of the CAR test for ROA have an original sample of 0.481. These results indicate

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that the higher the CAR, the higher the ROA. The results of the LDR test for NPL are also positive, namely 0.767. So it can be concluded that the higher the LDR, the higher the NPL. The results of the LDR test for ROA show a value of 0.049, meaning that the higher the LDR, the higher the ROA. Meanwhile, the original sample value for the effect of NPL on ROA is -0.309, which means that if the NPL value increases, then ROA will decrease. The results of testing the effect of CAR on ROA with NPL as the intervening variable have an original sample of 0.042. These results indicate that the higher the CAR, the higher the ROA mediated by NPL. The results of the last test of the effect of LDR on ROA with NPL as the mediating variable have an original sample of -0.237 which means that the higher the LDR, the lower the ROA mediated by NPL. The level of significance through P – values shows that a variable with a value of ≤ 0.05 is CAR to ROA with a P – value of 0.000 and LDR to NPL also has a P value of 0.000. So that the three tests have met the requirements for acceptable error rates. As for testing CAR to NPL (0.102), LDR to ROA (0.851), NPL to ROA (0.256), CAR to ROA through NPL (0.437), and LDR to ROA through NPL (0.265) it exceeds the limit of the accepted significance value.

DISCUSSIONS

The test results in the table show that CAR on ROA has a t-count that is greater than t-table, namely $3.664 > 2.008$, with a significance level below 0.05, namely with P-values of 0.000 and the relationship between variables is positive, namely 0.481. If we look at the relationship between these variables, it can be concluded that the higher the CAR, the higher the ROA. Statistical data on this hypothesis shows that the t-count is bigger than the t-table. So this shows that CAR has an effect on ROA. In conclusion, H1 is accepted or CAR has a significant positive effect on ROA.

The test results in the table show that LDR on ROA has a smaller t-count than t-table, namely $0.188 < 2.008$, with a significance level above 0.05, namely with P-values 0.851 and the relationship between variables is positive, namely 0.049. If we look at the relationship between these variables, it can be concluded that the higher the LDR, the higher the ROA. Statistical data on this hypothesis shows that the t-count is smaller than the t-table. So this shows that LDR has no effect on ROA. In conclusion, H2 is rejected or LDR has no significant positive effect on ROA.

The test results in the table show that CAR for NPL has a smaller t-count than t-table, namely $1.639 < 2.008$, with a significance level below 0.05, namely with P-values 0.102 and the relationship between variables is negative, namely -0.135. If we look at the relationship between these variables, it can be concluded that the higher the CAR, the lower the NPL. Statistical data on this hypothesis shows that the t-count is smaller than the t-table. So this shows that CAR has no effect on NPL. In conclusion, H3 is rejected or CAR does not have a significant negative effect on NPL.

The test results in the table show that LDR on NPL has a t-count that is greater than t-table, namely $8.150 > 2.008$, with a significance level below 0.05, namely with P-values 0.000 and the relationship between variables is positive, namely 0.767. If we look at the relationship between these variables, it can be concluded that the higher the LDR, the higher the NPL. Statistical data on this hypothesis shows that the t-count is bigger than the t-table. So this shows that LDR has an effect on NPL. In conclusion, H4 is accepted or LDR has a significant positive effect on NPL.

The test results in the table show that the NPL on ROA has a t-count that is smaller than the t-table, namely $1.137 < 2.008$, with a significance level above 0.05, namely with P-values 0.256 and the relationship between variables is negative, namely -0.309. If we look at the relationship between these variables, it can be concluded that the higher the NPL, the lower the ROA. Statistical data on this hypothesis shows that the t-count is smaller than the t-table. So this shows that NPL has no effect on ROA. In conclusion, H5 is rejected or NPL has no significant negative effect on ROA.

The test results in the table show that CAR on ROA mediated by NPL has a smaller t-count than t-table, namely $0.778 < 2.008$, with a significance level above 0.05, namely with P-values 0.437 and the relationship between variables is positive, namely 0.042. If you look at the relationship between these variables, it can be concluded that these variables have a relationship that is not related to one another.

The results of testing the effect of the mediating variable can also be seen from the original sample value of the independent variable on the intervening variable, namely CAR on ROA, then multiplied by the original sample value of the mediating variable on the dependent variable, namely NPL on ROA. Then the results of these calculations are compared with the original sample values of the independent variables on the dependent variable, namely CAR on ROA (Dewi and Frianto, 2013). If the original sample results on the calculation of the independent variable on the dependent variable through the mediating variable are greater, then the mediating variable is declared to have an indirect effect. The direct effect of CAR on ROA is 0.481. Meanwhile, the indirect effect of CAR on ROA through NPL as a mediating variable is $(0.481) \times (0.042) = 0.020$. In these calculations it is known that the effect through the mediating variable is smaller than the direct effect of the independent variables through the dependent variable. After carrying out various mediation tests, it can be concluded that H6 is rejected or CAR has no effect on ROA with NPL as the mediating variable.

The test results in the table show that LDR on ROA mediated by NPL has a smaller t-count than t-table, namely $1.116 < 2.008$, with a significance level above 0.05, namely with P-values 0.265 and the relationship between variables is positive i.e. -

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0.237. If you look at the relationship between these variables, it can be concluded that these variables have a relationship that is not related to one another.

The results of testing the effect of the mediating variable can also be seen from the original sample value of the independent variable on the intervening variable, namely LDR on ROA, then multiplied by the original sample value of the mediating variable on the dependent variable, namely NPL on ROA. Then the results of these calculations are compared with the original sample values of the independent variables on the dependent variable, namely LDR on ROA (Dewi and Frianto, 2013). If the original sample results on the calculation of the independent variable on the dependent variable through the mediating variable are greater, then the mediating variable is declared to have an indirect effect. The direct effect of LDR on ROA is 0.049. Meanwhile, the indirect effect of CAR on ROA through NPL as a mediating variable is $(0.049) \times (0.042) = 0.002$. In these calculations it is known that the effect through the mediating variable is smaller than the direct effect of the independent variables through the dependent variable. After carrying out various mediation tests, it can be concluded that H7 is rejected or LDR has no effect on ROA with NPL as the mediating variable.

CONCLUSION

This study aims to examine the effect of capital adequacy (CAR) and lending (LDR) on profitability (ROA) with non-performing loans (NPL) as a mediating variable in 4 (four) state-owned banks (BRI, BNI, Mandiri, BTN) for the 2015 period. up to 2022. The results show that capital adequacy has a significant effect on profitability, as well as lending has a significant effect on non-performing loans. Capital adequacy or CAR does not have a significant effect on non-performing loans or NPL, as well as lending or LDR does not have a significant effect on profitability or ROA.

The results of this study also show that NPL has no significant effect on ROA. In addition, NPL is also unable to mediate both the effect of CAR on ROA and the effect of LDR on ROA. This means that the value of the direct effect of CAR on ROA and LDR on ROA is higher than the effect through NPL.

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