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How Capital Adequacy Ratio, Non-Performing Loans and Good Corporate Governance Affect Company Value with Financial Performance as Intervening Variables (Empirical Study of Commercial Banks Registered On the Idx for the 2017-2019 Period)

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Abstrack

The increasingly open economic system between countries, known as international trade, is evidence of the rapid expansion of the current economic system. The only depository financial institution is a bank. In this study, we will discuss how Capital Adequacy Ratio, Non-Performing Loans and Good Corporate Governance Affect Firm Value with Financial Performance as an Intervening Variable. Data analysis techniques use descriptive analysis, panel data regression estimation, common effect models, fixed effect models, random effect models, Chow tests, Hausman tests, Lagrange Multiplier tests, classical assumption tests (normality tests, multicollinearity tests, heteroscedasticity tests). Hypothesis test (F test and T test). This study is a quantitative study through an analytical descriptive study, seen from the characteristics of the problems studied. The population of this study are commercial banks listed on the Indonesia Stock Exchange in 2017 and 2019. The results show the effect of the variables capital adequacy ratio, non-performing loans, good corporate governance and return on assets on company value shown to show that the prob. F (Statistic) of 0.0160 is smaller than the significance level of 0.05. This means that the capital adequacy ratio, non-performing loans, good corporate governance and intervening return on assets variables simultaneously affect firm value in banking companies.

Keywords: Financial Performance, Firm Value, NPL and CAR Ratio, GCG

1. INTRODUCTION

The increasingly open economic system between countries, known as international trade, is evidence of the rapid expansion of the current economic system. Indonesia, as a developing country, has sufficient market share for successful companies. This is where banks are needed for economic growth and development in Indonesia. A strong, open and accountable banking system is also needed because the banking industry plays an important role in various aspects of people's lives. A bank is an entity that acts as a financial middleman or financial intermediary whose role is to distribute cash from parties who have excess funds to those who need funds.(Indonesian Banking Booklet, 2009).

The only depository financial institution is a bank (Indroes, 2011). As depository financial institutions, banks are authorized to take deposits directly from the public, which are then channeled in the form of loans, both in the form of credit and investment, as well as providing capital for economic activities that require additional money.

Taswan (2010)argued, the 1997–1998 financial crisis provided very important lessons for the banking industry. Most banks in Indonesia are experiencing liquidity problems, declining asset quality, inability to generate profits, and drained of capital in a short time. This situation contrasts with the contemporary banking environment, which has experienced significant improvements and increased competition among commercial banks. In addition to the responsibilities mentioned above, banks are also required to consider the main purpose of forming a company(Augustine, 2014).

Firm value is an indication of the success of a company in relation to the value of the investor's stock price. The skyrocketing increase in stock prices causes the company's stock price to also rise. The value of the company is very crucial because increasing the value of the company is the same as optimizing the achievement of the main goals of the company.Sarton (2010)explains, the value of the company is the selling price as an operational company. There is an excess of selling value over the value of the company's management organization. Refer toHarmono (2009), explained, the value of a business is its performance, which is represented in the share price formed by the demand and supply of the capital market, which becomes the public's assessment of its performance.

The return on assets profitability ratio (ROA) can be used to evaluate a company's performance because ROA provides a more accurate performance evaluation.Dendawijaya (2010). Bank Indonesia prioritizes profitability as measured by ROA compared to ROE because most of its fund assets consist of public deposits, making ROA a more accurate indicator of bank profitability. Profitability can be used as a benchmark for the success of a company's management performance based on the ratio of profits to sales and investment. If ROA improves, it indicates that the company's profitability has increased, which affects shareholder profitability. However, if the company's total assets do not generate a profit, the company will lose money and will not be able to grow, resulting in a decrease in its market value. This is in accordance with the findings of Sari (2013) and Repi et al. (2016) who found that profitability has a positive and significant impact on business value. Various stakeholders, including managers, investors, and creditors, provide benefits to the profitability and value of the company. However, every established organization, including banks, must face risks that can damage the company's profitability and value. The Capital Adequacy Ratio, Non-Performing Loans, and Good Corporate Governance are bank performance indices that are believed to affect profitability and company value.

Credit includes the main function of the bank and the largest activity or function(L Dendawijaya, 2009). The most undesirable aspect of lending to banks is when there is a possibility that the borrower may not fulfill his commitments. This will result in losses that will be experienced by the bank and potentially have an impact on profitability which will affect the

market value of the bank. Bad loans shown by the NPL ratio cannot be avoided by any bank when providing credit. The NPL ratio compares non-performing loans to total loans. This is relevant to the study findings from Sudiyatno and Purwoko (2013) and Indrayani et.al. (2016) who found that NPL affects ROA negatively and significantly, as wellAugustine (2014)and Repi, et al. (2016) which proves that NPL has a negative effect on firm value.

Santoso (2017), conducted a study on the effect of excellent corporate governance on business value, with financial performance as an intervening variable. Good corporate governance, as reflected in institutional ownership, is proven to have a positive impact on business value. Using financial performance, good corporate governance, which is a proxy for institutional ownership, has a large indirect effect on business value. Financial performance is one of the criteria that investors consider when deciding whether to invest in company shares. In terms of performance, the company's financial statements are a representation of the company's financial performance. The accounting process ends with the preparation of financial statements, which seeks to present financial information that describes the status of a business for a certain time. Measurement of financial performance includes indicators used by investors in evaluating a company, starting from the stock price on the Indonesia Stock Exchange. The greater the financial success of a company, the greater the return on investment that will be obtained. Investors will often look for organizations with the highest financial performance and invest in those companies.

There are aspects that link good corporate governance, corporate value, and financial performance, such asPriest (2012)who found that there was no positive relationship between good corporate governance and return on assets (ROA), but found a positive relationship between good corporate governance and return on equity (ROE), then no positive relationship was found between good corporate governance and Tobin's Q. Another study fromSantoso (2017)found that good corporate governance has a significant positive effect on firm value. Good corporate governance indirectly affects the value of the company significantly, through financial performance as an intervening variable.

Fahmi (2015) found that the capital adequacy ratio, also known as the Capital Adequacy Ratio (CAR) is a bank's ability to cover the risk of loss from its operations and to support its operational activities. Similar to other businesses, banks have access to money that can be used for banking activities. There are two forms of bank capital: core capital and additional capital. According to the standards of the Financial Services Authority, the minimum capital that must be owned by a bank is 8%.

Furthermore, studies fromHidayat (2014)proves that CAR positively influences firm value but is not significant. However, studies fromSrihayati & Tandika (2015)found that CAR does not significantly affect firm value.

2. METHODS

Data analysis techniques using descriptive analysis, Panel Data Regression Estimation, Common effect Model, Fixed effect Model,random effect model,chow test,Hausman Test, Lagrange Multiplier Test, Classical Assumption Test (Normality Test, Multicollinearity Test, Heteroscedasticity Test), Hypothesis Test (F Test and T Test).

This study is a quantitative study through an analytical descriptive study, seen from the characteristics of the problems studied. The population of this study are commercial banks listed on the Indonesia Stock Exchange (IDX) between 2017 and 2019. Sampling was carried out by purposive sampling, with a sample that has the following criteria: (1) commercial banks listed on the Indonesia Stock Exchange (IDX)) period 2017-2019, (2) commercial banks that provide complete financial statements and ratios according to the variables studied, (3) commercial banks with the largest asset turnover in Indonesia (hundreds of trillions of rupiah) in 2017- 2019.

Data analysis techniques used descriptive statistics, estimated panel data regression, fixed effect model, random effect model, common effect model, as well as Chow test, Lagrange multiplier test, Classical Assumption test (Normality test, Multicollinearity test, Heteroscedasticity test), Hausman test, and Hypothesis test (F test and T test).

3. RESULTS AND DISCUSSION

3.1. RESEARCH RESULTS

3.1.1. Research Overview

Secondary data is used for study analysis. Data were obtained from the annual financial reports of banking businesses listed on the Indonesia Stock Exchange (IDX) between 2017 and 2019. This study uses capital adequacy ratios, non-performing loans and good corporate governance, intervening return on assets and the dependent variable of firm value using tobin's q. This data was obtained from www.idx.co.id. Below are the companies studied in this study:

Table 1 List of Companies

Number	Ticker Symbol	Corporate Name
1	BBCA	Bank Central Asia Tbk
2	BBNI	Bank Negara Indonesia Tbk
3	BBRI	Bank Rakyat Indonesia Tbk
4	BBTN	Bank Tabungan Negara Tbk
5	BDMN	Bank Danamon
6	BJBR	Bank Pembangunan Daerah Jawa Barat Dan Banten
7	BJTM	Bank Pembangunan Daerah Jawa Timur
8	BMAS	Bank Maspion
9	BMRI	Bank Mandiri Tbk
10	BNGA	Bank CIMB Niaga
11	BTPN	Bank Tabungan Pensiunan Nasional
12	MAYA	Bank Mayapada
13	MEGA	Bank Mega
14	NISP	Bank OCBC NISP
15	PNBN	Bank PAN Indonesia

Source: www.idx.co.id Data processed in 2022

3.1.2. Descriptive Statistics

Table 2 displays descriptive data for each of the independent variables in this study, namely the capital adequacy ratio, non-performing loans and good corporate governance, the intervening variable return on assets and the dependent variable firm value. The total observations in the study are 45 data and are a combination of 15 banking companies in the 2017-2019 time period. Shown below is a descriptive statistical analysis:

Table 2 Descriptive Statistics

	TOBINSQ	CAR	NPL	GCG	ROA
Mean	1.057529	20.85711	1.311556	1.933333	2.434222
Median	1.011840	21.47000	1.060000	2.000000	2.240000
Maximum	1.707250	24.65000	4.200000	2.000000	4.000000
Minimum	0.703080	14.11000	0.400000	1.000000	0.730000
Std. Dev.	0.213171	2.770244	0.805473	0.252262	0.867561
Observations	45	45	45	45	45

Source: Data processed with eviews 9, 2022

Description of each variable based on the table, namely:

a. The dependent variable company value (Tobinsq) obtained the highest value of 1,707, namely Bank Central Asia Tbk in 2019 and the lowest of 0,703, namely the National Pension Savings Bank Tbk in 2017. The mean and median values of the variable company value are 1,058 and 1012. The standard deviation of the company's value is 0.213.

b. The independent variable capital adequacy ratio (CAR) obtained the highest value of 24.65, namely the Regional Development Bank of East Java Tbk in 2017 and the lowest of 14.11, namely Bank Mayapada Tbk in 2017. The mean and median values of the

variable capital adequacy ratio each amount 20.857 and 21.47. The standard deviation of the capital adequacy ratio is 2.77.

c. The independent variable non-performing loans (NPL) obtained the highest score of 4.2 owned by Bank Mayapada Tbk in 2017 and the lowest of 0.4 namely National Pension Savings Bank Tbk in 2017 and 2019 and Bank Central Asia Tbk in 2017-2018. The mean and median values for non-performing loans are 1.312 and 1.06, respectively. The standard deviation for non-performing loans is 0.805.
d. The independent variable good corporate governance (GCG) obtained the highest score of 2 and the lowest of 1. The mean and median values of the good corporate governance variables were 1,933 and 2, respectively. The standard deviation of good corporate governance was 0,252.
e. The intervening return on assets (ROA) variable obtained the highest value of 4, namely Bank Central Asia Tbk in 2018-2019 and the lowest of 0.73, namely Bank Mayapada Tbk in 2018. The mean and median values for the variable return on assets each amount 2.434 and 2.240. The standard deviation of return on assets is 0.868.

3.1.3. Panel Data Regression Estimation

This study uses a panel data regression model because panel data is used in this study. This data is a combination of time series data (2017-2019 time series) and cross section data (15 companies). Through Microsoft Excel and Eviews 9.0 tools, data analysis and sample estimation were carried out.

3.1.4. Common effect model

The estimation findings of the common effect model of equations 1 and 2 are shown below:

Table 3 Model Common Equation 1 (ROA)

Variable	Coefficient
C	-0.670323
CAR	0.160526
NPL	-0.172925
GCG	-0.008670

Source: Data processed with eviews 9, 2022

Table 4 Common Effect Model Equation 2 (Tobins'q)

Variable	Coefficient
C	1.029703
CAR	-0.016322
NPL	0.011595
GCG	0.110311
ROA	0.057421

Source: Data processed with eviews 9, 2022

Referring to tables 3 and 4, the ROA equation 1 model and Tobins'q equation 2 using the common effect model can be formulated as follows:

ROA = -0.670 + 0.161 CAR - 0.173 NPL - 0.009 GCG

Tobins' q =1.029 - 0.016 CAR + 0.012 NPL + 0.110 GCG + 0.057 ROA

3.1.5. Fixed effect model

The estimated fixed effect model of equations 1 and 2 is presented below:

Table 5 Fixed Model Equation 1 (ROA)

Variable	Coefficient
C	-0.698366
CAR	0.162320
NPL	-0.168589
GCG	-0.016464

Source: Data processed with eviews 9, 2022

Table 6 Fixed Effect Model Equation 2 (Tobins'q)

Variable	Coefficient
C	1.023374
CAR	-0.015656
NPL	0.011974
GCG	0.108939
ROA	0.055205

Source: Data processed with eviews 9, 2022

Referring to tables 5 and 6 above, the ROA equation 1 model and Tobins'q equation 2 with the fixed effect model can be formulated as:

ROA = -0.698 + 0.162 CAR - 0.169 NPL - 0.016 GCG

Tobins' q =1.023 - 0.016 CAR + 0.012 NPL + 0.109 GCG + 0.056 ROA

3.1.6. Random effect model

The estimation results of the random effect model of equations 1 and 2 are presented in the following table:

Table 7 Model Random Equation 1 (ROA)

Variable	Coefficient
C	-1.328587
CAR	0.197906
NPL	0.294119
GCG	-0.388287

Source: Data processed with eviews 9, 2022

Table 8 Random Effect Model Equation 2 (Tobins'q)

Variable	Coefficient
C	1.287543
CAR	-0.031868
NPL	-0.122992
GCG	0.232905
ROA	0.059847

Source: Data processed with eviews 9, 2022

Referring to tables 7 and 8, the ROA equation 1 model and Tobins'q equation 2 using the random effect model can be formulated as follows:

ROA = -1,329 + 0,198 CAR + 0,294 NPL - 0,388 GCG

Tobins' q =1.288 - 0.032 CAR - 0.123 NPL + 0.233 GCG + 0.059 ROA

3.1.7. Panel Data Regression Model Selection

Widarjono (2013: 362) explains, selection of the best model can be done by carrying out the F statistical test or Chow test, and the Hausman test and, the Lagrange Multiplier test.

3.1.8. Chow Test on the Fixed Effect Model

The results of testing the fixed effect model of equation 1 ROA and equation 2 Tobins'q using the chow test are shown below:

Table 9 Chow Test Results

Equation	Prob. *cross section F*	a = 5 %	Final Decision
ROA	0.7851	0.7851 > 0.05	Common Effect
Tobins'q	0.9188	0.9188 > 0.05	Common Effect

Source: Data processed with eviews 9, 2022

The findings from the Chow test in Table 9 prove that the cross-sectional probability F equation 1 (ROA) and equation 2 (Tobins'q) are each smaller than alpha (0.05), indicating that H0 is accepted. Then the common effect model can be considered suitable to be the best technique in regression testing.

3.1.9. Hausman test on random effect models

The findings of analysts testing the random effect model in equation 1 ROA and equation 2 Tobins'q with the Hausman test are shown below:

Table 10 Hausman Test

Equation	Prob. *cross section random*	a = 5 %	Final Decision
ROA	0.0158	0.0158 < 0.05	Fixed Effect
Tobins'q	0.1623	0.1623 > 0.05	Random Effect

Source: Data processed with eviews 9, 2022

The Hausman test findings above prove that the random cross section probability in the equation 1 model (ROA) is smaller than alpha (0.05) indicating that ha is accepted, so the fixed effect model is the most suitable model. While equation 2 (Tobins'q) is 0.1623 greater than alpha (0.05) so that Ho is accepted, then the random effects model is proven to be the best used for panel data regression testing.

3.1.10. Lagrange Multiplier Test on the Common Effect Model

The results of testing the common effect model in equation 1 ROA and equation 2 Tobins'q with the Lagrange multiplier test are shown below:

Table 11 Lagrange Multiplier Test

Equation	Prob. *Cross-section Breusch-Pagan*	a = 5 %	Final Decision
ROA	0.000	0.000 < 0.05	Random Effect
Tobins'q	0.000	0.000 < 0.05	Random Effect

Source: Data processed with eviews 9, 2022

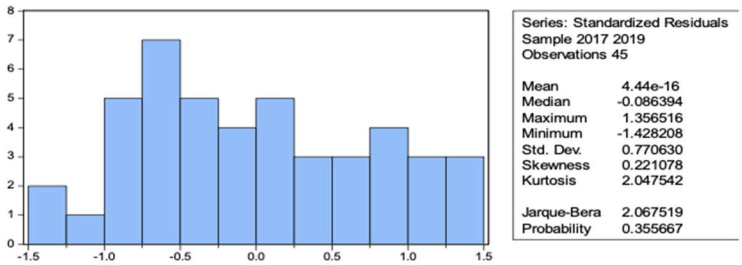
The findings of the Lagrange multiplier test using the Breusch-Pagan method prove that the Breusch-Pagan cross-section prob. value in equation 1 (ROA) and equation 2 (Tobins'q) is less than 0.05, which is 0.000. So that Ha is accepted, meaning that the best estimation method is used in equation 1 (ROA) and equation 2 (Tobins'q) which is a random effect model.

3.2. Classic assumption test

3.2.1. Normality test

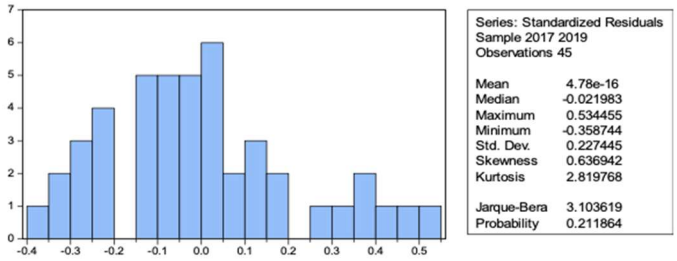
The findings of testing the classical assumptions of normality in equations 1 and 2 in this study can be seen in the following figure:

Figure 1 Normality Test Results (ROA)



Source: Data processed with eviews 9, 2022

Figure 2 Normality Test Results (Tobin'q)



Source: Data processed with eviews 9, 2022

Referring to Figures 1 and 2, it is evident that the prob. JB calculate equations 1 and 2 respectively 0.356 and 0.212 > 0.05, it can be concluded that the residuals have been normally distributed. This indicates that the classical assumptions about normalcy have been fulfilled.

3.2.2. Multicollinearity Test

The results of the multicollinearity test of equations 1 and 2 can be seen in the table below:

Table 12 Multicollinearity Test Results (ROA)

	CAR	NPL	GCG
CAR	1	**-0.421797**	**0.268675**
NPL	**-0.421797**	1	**0.180604**
GCG	**0.268675**	**0.180604**	1

Source: Data processed with eviews 9, 2022

Table 13 Multicollinearity Test Results (Tobins'q)

	CAR	NPL	GCG	ROA
CAR	1	**-0.421797**	**0.268675**	**0.579624**
NPL	**-0.421797**	1	**0.180604**	**-0.377210**
GCG	**0.268675**	**0.180604**	1	**0.106201**
ROA	**0.579624**	**-0.377210**	**0.106201**	1

Source: Data processed with eviews 9, 2022

Referring to the multicollinearity test findings in tables 12 and 13, the correlation coefficient value between the independent variables capital adequacy ratio, non-performing loans and good corporate governance and the intervening return on assets variable scores <0.80, meaning that there is no multicollinearity found in the regression equation model.

3.2.3. Heteroscedasticity Test

The results of the heteroscedasticity test for equations 1 and 2 are shown below:

Table 14 Heteroscedasticity Test Results (ROA)

Variable	Prob.
C	0.9111
CAR	**0.3490**
NPL	**0.5364**
GCG	**0.0766**

Source: Data processed with eviews 9, 2022

Table 15 Heteroscedasticity Test Results (Tobin'q)

Variable	Prob.
C	0.7997
CAR	**0.1297**
NPL	**0.0723**
GCG	**0.0908**
ROA	**0.4075**

Source: Data processed with eviews 9, 2022

Refer to the findingsheteroscedasticity test in tables 14 and 15, it is proven that the probability value of each variable in equations 1 and 2 has a value > alpha 0.05, it is concluded that there is no heteroscedasticity problem in the regression model.

3.3. Panel Data Multiple Regression Analysis

3.3.1. Multiple Regression Analysis Return on assets

The results of testing equation 1 are shown below:

Table 16

Multiple Regression Analysis (Return on assets)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.328587	1.537519	-0.864111	0.3926
CAR	0.197906	0.051333	3.855324	0.0004
NPL	0.294119	0.126170	2.331128	0.0247
GCG	-0.388287	0.703393	-0.552019	0.5839

Source : Data processed with eviews 9, 2022

Referring to the regression findings in table 16, the relationship between the variables capital adequacy ratio, non-performing loans and good corporate governance on return on assets can be presented in the following equation:

$Y1 = \alpha + \beta 1X1 + \beta\ 2X2 + \beta\ 3X3 + e$

Return on assets = -1.329 + 0.198*Capital adequacy ratio*+ 0.294 Non-performing loans – 0.388 Good corporate governance

The above equation means that:

1) The constant a is 1,329, this indicates that if the independent variable capital adequacy ratio, non-performing loans and good corporate governance is 0 (unchanged), then the return on assets in banking companies obtains a value of 1,329.
2) The regression coefficient of the capital adequacy ratio variable is 0.198 indicating a positive direction. This indicates that if the capital adequacy ratio variable increases by 1 while the non-performing loans and good corporate governance variables are constant, the return on assets of banking companies will increase by 0.198.
3) The regression coefficient of the variable non-performing loans of 0.294 shows a positive direction. This indicates that if the non-performing loans variable increases by 1 while the capital adequacy ratio and good corporate governance variables are constant, the return on assets of banking companies will increase by 0.294.
4) The regression coefficient of the good corporate governance variable is -0.388 indicating a negative direction. This indicates that the good corporate governance variable has decreased by 1 while the capital adequacy ratio and non-performing loans variables are constant, so the return on assets of banking companies will increase by 0.388.

3.3.2. Multiple Regression Analysis of Firm Value

The findings of multiple regression testing equation 2 are shown below:

Table 17

Multiple Regression Analysis (Firm value)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.287543	0.493479	2.609113	0.0127
CAR	-0.031868	0.015192	-2.097702	0.0423
NPL	-0.122992	0.032811	-3.748449	0.0006
GCG	0.232905	0.234268	0.994180	0.3261
ROA	0.059847	0.036696	1.630904	0.1108

Source : Data processed with eviews 9, 2022

Referring to the regression findings in table 17, the relationship between the variables capital adequacy ratio, non-performing loans, good corporate governance and return on assets to firm value is presented in the following equation:

Y2 = α + β4X1 + β5X2 + β6X3 + β7X4 + e

Firm value = 1.288 – 0.032 Capital adequacy ratio – 0.123 Non-performing loans + 0.233 Good corporate governance + 0.059 Return on assets

The above equation means that:

1) The constant a is 1,288, this indicates that if the independent variable capital adequacy ratio, non-performing loans, good corporate governance and the intervening return on assets variable is 0 (does not change), then the firm value of banking companies obtains a value of 1,288.
2) The regression coefficient of the capital adequacy ratio variable is -0.032 indicating a negative direction. This indicates that if the capital adequacy ratio variable decreases by 1 while the non-performing loans, good corporate governance and return on assets are non-performing, the firm value of banking companies will increase by 0.032.
3) The regression coefficient of the non-performing loans variable is -0.123 indicating a negative direction. This indicates that if the non-performing loans variable has decreased by 1 while the capital adequacy ratio, good corporate governance and return on assets variables are constant, the firm value of banking companies will increase by 0.123.
4) The regression coefficient of the good corporate governance variable is 0.233 indicating a positive direction. This indicates that if the good corporate governance variable increases by 1 while the capital adequacy ratio, non-performing loans and return on assets variables are constant, the firm value of banking companies will increase by 0.233.
5) The regression coefficient of the variable return on assets of 0.059 indicates a positive direction. This indicates that if the return on assets variable increases by 1 while the capital adequacy ratio, non-performing loans and good corporate governance variables are variable, then the firm value of banking companies will increase by 0.059.

3.4. Hypothesis testing

3.4.1. Determination Coefficient Test

The findings of the coefficient of determination in this study are shown below:

Table 18

Coefficient of Determination (R^2) Return on assets

R-squared	0.258442
Adjusted R-squared	**0.204182**

Source : Data processed with eviews 9, 2022

Based on the findings of the coefficient of determination in table 18, the coefficient of determination of 0.204 proves that the proportion of the influence of the variable capital adequacy ratio, non-performing loans and good corporate governance on return on assets in banking companies is 20.4 percent while the remaining is 79.6 percent (100 – 20.4 percent) influenced by other variables outside of this study.

Table 19

Coefficient of Determination (R^2) Firm value

R-squared	0.257326
Adjusted R-squared	**0.183059**

Source : Data processed with eviews 9, 2022

Based on the results of the coefficient of determination in table 19, the coefficient of determination is 0.183 proving that the proportion of the influence of capital adequacy ratio variables, non-performing loans, good corporate governance and intervening return on assets variables on firm value in banking companies is 18.3 percent while the remaining 81.7 percent (100 – 18.3 percent) were influenced by other variables outside of this study.

3.4.2. Simultaneous F Test

The influence of the capital adequacy ratio, non-performing loans and good corporate governance variables on return on assets is presented in table 20.

Table 20 Statistical Test Results F (Return on assets)

F-statistic	4.763011
Prob(F-statistic)	**0.006122**

Source : Data processed with eviews 9, 2022

The test results in the table above show that the prob. F (Statistic) of 0.0061 is smaller than the significance level of 0.05. This means that the capital adequacy ratio, non-performing loans and good corporate governance simultaneously affect the return on assets in banking companies.

Table 21 Statistical Test Results F (company value)

F-statistic	3.464859
Prob(F-statistic)	**0.016017**

Source : Data processed with eviews 9, 2022

The influence of capital adequacy ratio variables, non-performing loans, good corporate governance and return on assets on firm value is presented in table 4.15. The test results show that the prob. F (Statistic) of 0.0160 is smaller than the significance level of 0.05. This means that the capital adequacy ratio, non-performing loans, good corporate governance and intervening return on assets variables simultaneously affect firm value in banking companies.

3.4.3. Partial T test

The influence of the capital adequacy ratio, non-performing loans and good corporate governance variables on return on assets is shown below:

Table 22 Partial t test (Return on assets)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.328587	1.537519	-0.864111	0.3926
CAR	0.197906	0.051333	3.855324	0.0004
NPL	0.294119	0.126170	2.331128	0.0247
GCG	-0.388287	0.703393	-0.552019	0.5839

Source : Data processed with eviews 9, 2022

Referring to the findings of the t test above, then:

1) H1 = Capital adequacy ratio affects return on assets
   Study findings in table 22, obtain a prob value. Capital adequacy ratio variable < critical probability value (α = 5%) of 0.000 < 0.05. This indicates the capital adequacy ratio affects the return on assets. Thus, H1 is accepted.
2) H2 = Non-performing loans have an effect on return on assets
   Prob value. non-performing loans variable < critical probability value (α = 5%) of 0.025 < 0.05. This indicates that non-performing loans affect return on assets. So, H2 is accepted
3) H3 = Good corporate governance has an effect on return on assets
   Prob value. good corporate governance variable > critical probability value (α = 5%) is 0.584 > 0.05. This indicates that good corporate governance does not affect return on assets. Thus, H3 is rejected.

The influence of capital adequacy ratio variables, non-performing loans, good corporate governance and intervening return on assets variables on firm value is presented in the table below:

Table 23 Partial t test (firm value)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.287543	0.493479	2.609113	0.0127
CAR	-0.031868	0.015192	-2.097702	0.0423
NPL	-0.122992	0.032811	-3.748449	0.0006
GCG	0.232905	0.234268	0.994180	0.3261
ROA	0.059847	0.036696	1.630904	0.1108

Source : Data processed with eviews 9, 2022

Based on the results of the t test above, then:

1) H4 = Capital adequacy ratio affects firm value

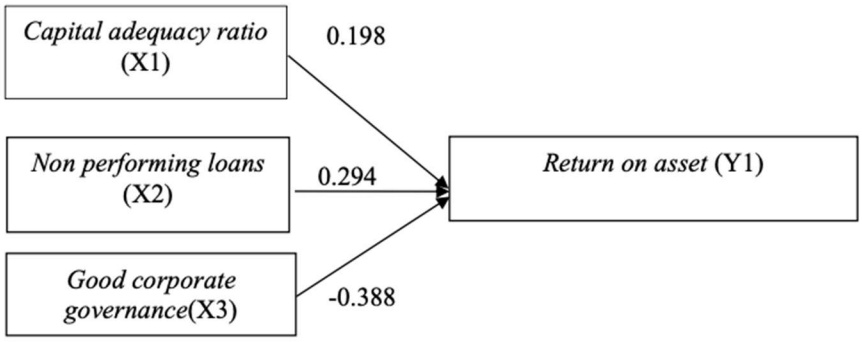
The research findings in table 23, obtain a prob value. Variable capital adequacy ratio <critical probability value (α = 5%) of 0.042 <0.05. This indicates the capital adequacy ratio affects the value of the company. Thus, H4 is accepted.

2) H5 = Non-performing loans have an effect on firm value
   Prob value. Variable non-performing loans < critical probability value (α = 5%) is 0.000 < 0.05. This indicates non-performing loans affect the value of the company. Thus, H5 is accepted.
3) H6 = Good corporate governance has an effect on firm value
   Prob value. Good corporate governance variable > critical probability value (α = 5%) is 0.326 > 0.05. This indicates that good corporate governance does not affect firm value. Thus, H6 is rejected.
4) H7 = Return on assets has an effect on firm value
   Prob value. variable return on assets > critical probability value (α = 5%) is 0.111 > 0.05. This indicates return on assets does not affect firm value. Thus, H7 is rejected.

3.5. Regression Analysis of Mediating Variables (Sobel Test)

Based on the analysis equation in table 16, the path analysis framework of equation 1 can be described as follows:

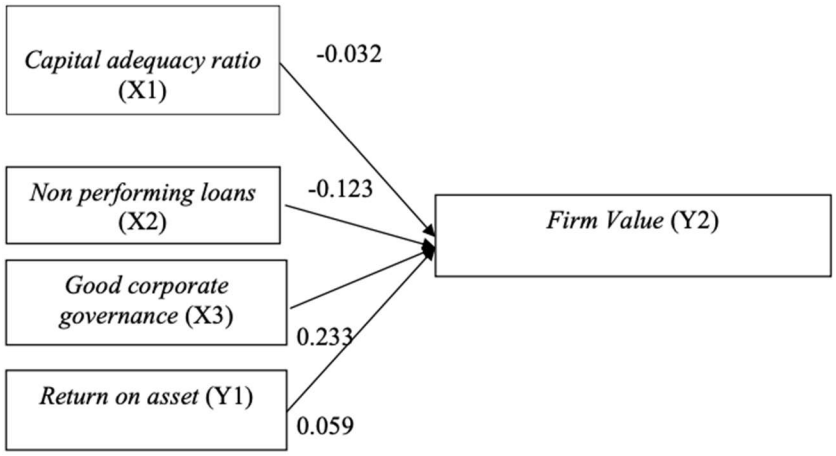
Figure 3 Path Analysis of Sub Model I (Y1)



Source : Data processed with eviews 9, 2022

Referring to the analysis equation in table 17, it can be described that the path analysis framework of equation 2 is:

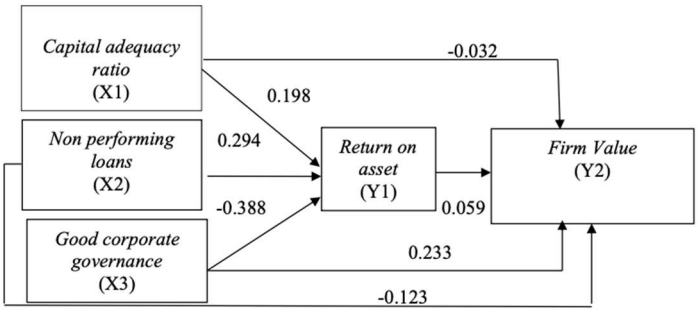
Figure 4 Path Analysis of Sub Model II (Y2)



Source : Data processed with eviews 9, 2022

The path analysis framework between the independent variables capital adequacy ratio, non-performing loans and good corporate governance to the dependent variable firm value through the intervening variable return on assets is presented in the following figure:

Figure 5 Path Analysis



Source : Data processed with eviews 9, 2022

Referring to Figure 5, it can be seen that the direct, indirect and total effects of the independent variables capital adequacy ratio, non-performing loans and good corporate governance on the dependent variable firm value through the intervening return on assets variable are as follows:

3.5.1. Direct effect

The effect of the capital adequacy ratio, non-performing loans and good corporate governance on return on assets (coefficient a) is as follows:

X1 ⟶ Y1 = 0.198

X2 ⟶ Y1 = 0.294

X3 ⟶ Y1 = -0.388

The effect of return on assets on firm value (coefficient b) is as follows:

Y1 ⟶ Y2 = 0.059

The influence of the capital adequacy ratio, non-performing loans and good corporate governance on firm value (coefficient c) is as follows:

X1 ⟶ Y2 = -0.032

X2 ⟶ Y2 = -0.123

X3 ⟶ Y2 = 0.233

3.5.2. Indirect effect

The effect of the capital adequacy ratio, non-performing loans and good corporate governance on firm value through return on assets (coefficient ab) is as follows:

X1 ⟶ Y1 ⟶ Y2 = (0.198 x 0.059) = 0.012

X2 ⟶ Y1 ⟶ Y2 = (0.294 x 0.059) = 0.173

X3 ⟶ Y1 ⟶ Y2 = (-0.388 x 0.059) = 0.023

Based on the statistical results above, it is known that:

1) *Capital adequacy ratio*has an indirect effect of 0.012 < a direct effect of 0.032.
2) *Non-performing loans*has an indirect effect of 0.173 < a direct effect of 0.123.
3) *Good corporate governance*has an indirect effect of 0.023 < a direct effect of 0.233.

3.5.3. Sobel test

A. Calculation of Sobel Test Variable Capital adequacy ratio

a. Determine the Standard Error of Indirect Effect with the formula:

$S\alpha b1 = b12 \sqrt{b7\, s_{b1}^2 + s_{b7}^2}$

$= \sqrt{(0.059)^2(0.051)^2 + (0.198)^2(0.037)^2}$

$= \sqrt{0.003 \text{ x } 0.003 + 0.038 \text{ x } 0.001}$

$= \sqrt{0.000009 + 0.000038}$

$= = 0.0069\sqrt{0.000047}$

b. Calculating Z-count Value

$Z = \frac{b1b7}{S\alpha b1}$

$Z = \frac{(0.198)\, x\, (0.059)}{0.0069}$

$Z = \frac{0.0117}{0.0069}$

Z = 1.696

Based on the above calculations, it is known that z count <z table is 1.696 <1.96, this indicates that return on assets cannot mediate the effect of the capital adequacy ratio variable on firm value.

B. **Calculation of Sobel Test Variable Non-performing loans**

a. Determine the Standard Error of Indirect Effect with the formula:

Sαb2 = b22 $\sqrt{b7\ s_{b2}^2 + s_{b7}^2}$

$=\sqrt{(0.059)^2(0.126)^2 + (0.294)^2(0.037)^2}$

$=\sqrt{0.003 \text{ x } 0.016 + 0.086 \text{ x } 0.001}$

$=\sqrt{0.000048 + 0.000086}$

= = 0.0116$\sqrt{0.000134}$

b. Calculating Z-count Value

$Z = \frac{b2b7}{Sαb2}$

$Z = \frac{(0.294)\ x\ (0.059)}{0.0116}$

$Z = \frac{0.0173}{0.0116}$

Z = 1.491

Based on the above calculations, it is known that z count < z table is 1.491 < 1.96, this indicates that return on assets cannot mediate the effect of non-performing loans on firm value.

C. **Calculation of Sobel Test Variable Good corporate governance**

a. Determine the Standard Error of Indirect Effect with the formula:

Sαb3 = b32 $\sqrt{b7\ s_{b3}^2 + s_{b7}^2}$

$=\sqrt{(0.059)^2(0.703)^2 + (-0.388)^2(0.037)^2}$

$=\sqrt{0.003 \text{ x } 0.494 + 0.151 \text{ x } 0.001}$

$=\sqrt{0.001482 + 0.000151}$

= = 0.0404$\sqrt{0.001633}$

b. Calculating Z-count Value

$Z = \frac{b3b7}{Sαb3}$

$Z = \frac{(0.388)\ x\ (0.059)}{0.0404}$

$Z = \frac{0.0228}{0.0404}$

Z = 0.564

Based on the above calculations, it is known that z count < z table is 0.564 < 1.96, this indicates that return on assets cannot mediate the influence of good corporate governance variables on firm value.

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