



## The Influence of Implementing Rural Bank Governance on Financial Performance (Study on Rural Banks in Central Java and the Special Region of Yogyakarta)

Ary Widiastuti; Djuminah

Graduate Program in Management, Faculty of Economics and Business, Sebelas Maret University, Surakarta,  
Indonesia

E-mail: [arywidhi@gmail.com](mailto:arywidhi@gmail.com)

<http://dx.doi.org/10.47814/ijssrr.v6i5.1282>

---

### **Abstract**

The present study analyzed the influence of implementing Rural Bank governance on the financial performance of Rural Banks in Central Java and the Special Region of Yogyakarta. The increase of Rural Bank's business followed by expansion of services might increase the risk in performing Rural Bank's activities. Thus, the implementation of governance is assumed to be essential to improve the performance of Rural Banks, protect stakeholders, increase compliance with provisions and ethical values that generally apply in banking. The research sample involved 305 Rural Banks in Central Java and Yogyakarta. The data analysis technique employed multiple linear regression. The results of the study included: First, in the 2017-2019 period, as the implementation of Rural Bank governance, the Board of Directors has a positive influence on Rural Bank's financial performance, but in the 2020-2021 period the Board of Directors has a negative influence on Rural Bank's financial performance. Second, as an implementation of Rural Bank governance, the composition of the Independent Board of Commissioners has a negative influence on Rural Bank's financial performance in the 2017-2019 period as well as the 2020-2021 period. Research limitations include: First, this study had an adjusted  $R^2$  value below 35%. Future research should add other Rural Bank governance implementation variables such as the number of directors. Second, this study involved a limited sample of only Rural Banks in Central Java and the Special Region of Yogyakarta. Future research should expand the scope of Rural Banks outside Central Java and the Special Region of Yogyakarta. Third, this study was still limited to Rural Banks and does not yet cover other financial institutions in the regions. Future research should consider other financial institutions such as commercial banks.

**Keywords:** *Rural Bank; Bank Governance; Bank Performance; Board of Directors*

## Introduction

As a form of microfinance, Rural Bank is one of the important strategies in efforts to improve people's welfare. Rural Bank is a business entity that collects funds from the public in the form of savings and distributes them in the form of credit or other forms as an effort to improve the standard of living of the general public conventionally or according to sharia principles whose activities do not provide payment traffic services (Arslan & Alqatan, 2020; Galal, 2017). Based on Indonesian Banking Statistics released by the Financial Services Authority on December 31 2021, the number of Rural Banks and Rural Islamic Banks in Indonesia was 1,632 Rural Banks/Sharia Rural Banks with details of: 1,468 Rural Conventional Banks and 164 Rural Islamic Banks.

Despite the development of Rural Bank from year to year, it still leaves several problems that need to be fixed. In the midst of intense competition in the financial services industry, Rural Bank grew with various problems including limited Human Resources (HR), limited capital, and increased competition between the financial services industries (Mandala et al., 2018; Tunay & Yüksel, 2017). Internal factors such as capital and human resources greatly influence the development and improvement of Rural Bank's financial performance (Firmansyah et al, 2021; Sapci & Miles 2019; Donou-Adonsou & Sylwester, 2017).

The sustainability of Rural Banks in Indonesia is determined by internal factors consisting of governance, business models, capital, infrastructure and human resources as well as external factors such as the business environment, competition and macroeconomics (Trinugroho et al, 2018). Hamada's research (2010) involving 1,104 Rural Banks stated that based on empirical results, bank loans from other commercial banks (linkage programs) made a positive contribution to credit expansion and increased Rural Bank ROA. Based on core capital ownership, Conventional Rural Banks are grouped into 3 (three) BPRKU (Rural Banks based on Business Activities) consisting of: BPRKU 1 which is Rural Bank with core capital of less than IDR 15 billion, BPRKU 2 which is Rural Bank with core capital at least IDR 15 billion to IDR 50 billion, and BPRKU 3 which is a Rural Bank with core capital of at least IDR 50 billion. The Rural Bank grouping influences the business activities that can be carried out or developed by a Rural Bank.

Increasing the Rural Bank's business followed by expansion of services can increase the risk of Rural Bank's performance. Thus, the implementation of governance is assumed to be crucial to improve the performance of Rural Banks, protect stakeholders, increase compliance with provisions and ethical values that apply in banking generally (Nuraeni, 2018). To strengthen Rural Banks, the Financial Services Authority issued OJK Regulation (POJK) No: 4/POJK.03/2015 dated 31 March 2015 concerning Implementation of Governance for Rural Banks. The impact of OJK Regulations related to governance is that Rural Banks must fulfill human resources in their respective organizational structures. BPRKU 1 and BPRKU 2 must have 2 (two) members of the Board of Directors and 2 (two) members of the Board of Commissioners. BPRKU 3 is required to have 3 (three) members of the Board of Directors and 3 (three) members of the Board of Commissioners. In addition to this, Rural Bank is required to appoint a member of the Board of Directors who oversees the compliance function.

Research conducted by Spong & Sullivan (2007) found that the governance process in banking is a complex framework. The governance framework involves shareholders, board of directors, managers and other employees. Share ownership by the Board of Directors and the managers employed have a positive influence on bank performance. Adams & Mehran (2012), who conducted research on 35 bank holding companies, held a different opinion by suggesting that the number and composition of members of the Board of Directors had no significant relationship with company value as measured through Tobin's Q. Research by Rahman & Islam (2018) conducted on 17 Commercial Banks in Bangladesh revealed that

the Board of Directors has a positive and significant influence on ROA, ROE and EPS. The objective of this study is to examine whether the Board of Directors and the composition of the Board have a significant influence on Rural Bank's financial performance. This research is expected to contribute to the development of Rural Bank management through its evaluation regarding the implementation of governance provisions and their impact on Rural Bank financial performance. Thus, regulation by the authorities and management of Rural Bank by management can complement each other to create a healthy and competitive microfinance industry.

### Conceptual Framework

The conceptual framework and research hypotheses are presented in Figure 1 below:

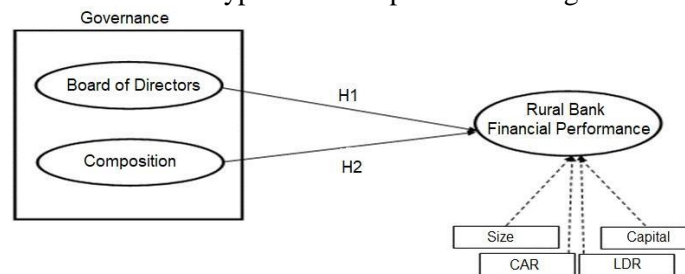


Figure 1. Conceptual Framework

The Board of Directors is part of the executive management of a company that is assigned and responsible for formulating policies, establishing strategies, and overseeing the company's operational activities (Hoque et al, 2013). Previous research related to governance conducted by Utama & Musa (2011) found that Corporate Governance practices have a positive influence on bank performance. Evidence from another study conducted by Andres & Vallelado (2008) regarding the influence of the size of the Board of Directors, which is a governance proxy for bank performance, shows that the size of the Board of Directors has a positive influence on bank performance.

Hoque et al (2013) conducted a study of 25 banks in Bangladesh listed on the Dhaka Stock Exchange (DSE) and found that board members have a positive and significant influence on bank performance as measured by ROA. In line with this research, Rahman & Islam (2018) argued that the number of the board of director members has a positive and significant influence on ROA, ROE and EPS.

**H1:** In implementing the provisions of Rural Banks governance, the Board of Directors has a positive influence on the Rural Bank's financial performance

The implementation of governance provisions for Rural Banks also regulates the fulfillment of Independent Commissioners in the organizational structure. Independent Commissioners for Rural Banks with a minimum core capital of IDR 50 billion are required to have at least 1 (one) Independent Commissioner. Meanwhile, Rural Banks with core capital of over IDR 80 billion are required to have Independent Commissioners of at least 50% of the total number of members of the Board of Commissioners. Share ownership by executive management may influence the development policy direction of Rural Bank, so that the Independent Board of Commissioners is expected to carry out more objective oversight.

An independent Board of Commissioners who has no financial and family relationship is considered to have a more effective influence in supervising Rural Bank's operational activities. This principle requires the management of Rural Bank to act independently according to their roles and

functions without pressure from any party that is not in accordance with applicable regulations or benefits certain parties. Rahman & Islam (2018) found that the composition of the board as indicated by the number of independent and non-independent directors can affect bank performance.

**H2:** In implementing the provisions of Rural Bank governance, the composition of the Board has a positive influence on the Rural Bank's financial performance

### **Research Methodology**

This was an empirical quantitative study using secondary data in the form of historical reports of the financial performance of Rural Banks which had its head office in Central Java and the Special Region of Yogyakarta. The data was obtained from the publication of financial reports recorded on the websites of Bank Indonesia and the Financial Services Authority. The periodization of data used the Publication of Financial Statements from December 2017 to December 2021. Data processing was divided into 2 (two) periods, namely 2017 to 2019 and 2020 to 2021.

The research population, which was the source of the data, was Rural Banks whose head offices were in Central Java and the Special Region of Yogyakarta, totaling 305 Rural Banks. The research sample was determined using the purposive sampling method, in which the sample selection technique was based on certain criteria with the aim of providing maximum information (Sekaran & Bougie, 2020). The targets in this study was Rural Bank with the following criteria:

- a. Conventional Rural Banks that have been registered with the Financial Services Authority since January 2017;
- b. In order to avoid bias, this study eliminated Rural Banks that carried out merger and/or consolidation during the study period;
- c. The Rural Bank is not in the process of restructuring (high risk, Bank Under Intensive Supervision (BDPI) or Bank Under Special Supervision (BDPK));
- d. The Rural Bank is not in the process of Revoking its Business License (CIU);
- e. The Rural Bank is not in the process of self-liquidation;
- f. The Rural Bank is not being subject to a Cease and Desist Order (CDO) sanction.

This study examined the effect of applying provisions of Rural Bank governance on financial performance. The method of analysis for this model was using Multiple Linear Regression Analysis and OLS (Ordinary Least Square) analysis tools. The regression model equation in this study is as follows:

$$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$$
$$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$$

Description: ROA = Return on Assets, ROE = Return on Equity, BOD = Directors in charge of the compliance function, CBC = Number of Independent Commissioners, BSM = Total of Rural Bank Assets, CAP = Rural Bank Capital, CAR = Capital Adequacy Ratio, LDR = Loan to Deposit Ratio,  $\alpha$  = constant,  $\beta$  = determinant coefficient explaining the variable,  $i$  = number of banks,  $t$  = time interval, and  $\epsilon$  = error.

As a basis for decision making in hypothesis testing, regression analysis first requires that the research data must meet the classic assumption test which includes the Normality Test, Heteroscedasticity Test, Multicollinearity Test, Autocorrelation Test data (Ghozali, 2016). Furthermore, the research data was processed through the Statistical Test (t-test), F Test and Determinant Coefficient Test ( $R^2$ ).

### Results and Discussion

The research population, which was the source of data, were Rural Banks whose head offices in Central Java and the Special Region of Yogyakarta totaling 305 Rural Banks. The research sample was determined using the purposive sampling method, in which the sample selection technique was based on certain criteria with the aim of providing maximum information (Sekaran & Bougie, 2020). The target in this research is Rural Banks with certain criteria.

**Table 1. Research Sample**

No	Description	Number of Rural Banks	Number of Observation
1.	Rural Bank in 2017 – 2019	305	915
2.	Rural Bank that is established after January 2017	(1)	(3)
3.	Rural Banks that carried out merger and/ consolidation	(5)	(15)
4.	Rural Bank in High Risk, BDPI, BDPK	(30)	(90)
5.	Rural Bank which is in the process of CIU	(1)	(3)
6.	Rural Bank which is in the process of self-liquidation and CDO	-	-
7.	Extreme data	-	184
	Research sample 2017 – 2019	268	620
9.	Rural Bank in 2020 – 2021	268	538
10.	Extreme data	-	(136)
	Research sample 2020 – 2021	268	400

Descriptive statistics are an overview of the characteristics of each variable in a study to get an overview of the condition of the sample companies. The data processing was divided into 2 (two) periods, namely 2017 to 2019 and 2020 to 2021. This took into account the ongoing CoronaVirus Disease 2019 (Covid-19) pandemic and the implementation of policies from the Financial Services Authority regarding the relaxation of provisions as a result of the spread of CoronaVirus Disease 2019 (Covid-19) in Rural Bank's financial statements for 2020 to 2021.

#### 1. Descriptive Statistics for the 2017-2019 Period

The research sample for 2017-2019 was 804 company data with 620 normal data and 184 extreme data removed. The following is a descriptive statistic of 620 normal data.

**Table 2. Descriptive Statistics for the 2017-2019 Period**

Continuous Variables					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	620	0.0014	0.0585	0.030783	0.0115202
ROE	620	0.0012	0.4656	0.158806	0.0708976
CBC	620	0.0000	0.6600	0.016855	0.0905785
BSM*	620	6.6730	9.4570	7.887827	0.5134138
CAP*	620	6.0021	8.5337	7.057325	0.4691191
CAR*	620	9.5400	99.5300	26.757694	14.1868235
LDR*	620	40.1900	99.7800	78.133661	9.9869834
Categorical Variables					
	N	Dik. 1	%	Dik.0	%
BOD	620	557	89.8	63	10.2

Based on Table 2. Above, Return on Assets (ROA) has a lower standard deviation than the average. It means that the ROA data is homogeneous. The dependent variable Return on Equity (ROE) has a minimum value of 0.0012 and a maximum value of 0.4656. The average return on capital used to measure the return to owners on their investment is 15.8806% of total equity. Independent Variable of the Board of Directors (BOD), the number of data for Rural Banks that already have Directors in charge of the compliance function is 557 out of a total of 620 data (89.8%). The average Board Composition score (CBC) is 0.016855. It means that the average number of independent commissioners who have no financial connection or share ownership and kinship is 1.6855% of the total commissioners. The control variable of Rural Bank Size (Bank Size Measure/BSM) has a minimum value of 6.6730 and a maximum value of 9.4570. The control variable of Rural Bank Capital (Capital/CAP) has a minimum value of 6.0021 and a maximum value of 8.5337. The control variable of Capital Adequacy Ratio (CAR) has a minimum value of 9.5400 and a maximum value of 99.5300. The control variable of Rural Bank Liquidity (Loan to Deposit Ratio/LDR) has a minimum value of 40.1900 and a maximum value of 99.7800.

## 2. Descriptive Statistics for the 2020-2021 Period

Descriptive statistics of 400 normal data in the period 2020 to 2021 are as follows:

**Table 3. Descriptive Statistics for the 2020-2021 Period**

<b>Variabel Kontinyu</b>					
	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
ROA	400	0.0020	0.0479	0.022282	0.0107099
ROE	400	0.0112	0.3298	0.126835	0.0651681
CBC	400	0.0000	0.6600	0.045975	0.1474157
BSM*	400	7.1934	9.4645	8.009005	0.4814452
CAP*	400	6.4959	8.5944	7.172665	0.4280662
CAR*	400	14.1400	77.4500	35.011750	14.7364576
LDR*	400	41.5300	96.6200	76.423675	10.2143948
<b>Categorical Variables</b>					
	<b>N</b>	<b>Dik. 1</b>	<b>%</b>	<b>Dik.0</b>	<b>%</b>
BOD	400	351	87.8	49	12.3

Based on table 3 above, the dependent variable of Return on Assets (ROA) shows a minimum value of 0.0020 and a maximum value of 0.0479. The average ROA value is 0.022282. It means that the average amount of profit earned by Rural Bank by utilizing the assets they have is 2.2282% of total assets. The dependent variable of Return on Equity (ROE) has a minimum value of 0.0112 and a maximum value of 0.3298. The average return on investment used to measure the return to owners on investment is 12.6835% of total equity. In the independent variable of the Board of Directors (BOD), the total data for Rural Banks that already have Directors in charge of the compliance function are 351 out of a total of 400 data (87.8%). It indicates that most of the Rural Banks whose head offices are in Central Java and the Special Region of Yogyakarta already have a Board of Directors in charge of the compliance function. The independent variable of Composition of the Board of Commissioners (CBC) has a minimum value of 0.0000 and a maximum value of 0.6600. The average number of independent commissioners who are not related financially or share ownership and kinship is 4.5975% of the total number of commissioners. The control variable of Rural Bank Size (Bank Size Measure/BSM) has a minimum value of 7.1934 and a maximum value of 9.4645. The control variable of Rural Bank Capital (Capital/CAP) has a minimum value of 6.4959 and a maximum value of 8.5944. The control variable of Capital Adequacy Ratio (CAR) has a minimum value of 14.1400 and a maximum value of 77.4500. CAR has a lower standard deviation than the average, which means that the CAR data is homogeneous. The



control variable of Rural Bank Liquidity (Loan to Deposit Ratio/LDR) has a minimum value of 41.5300 and a maximum value of 96.6200. LDR has a lower standard deviation than the average, which means that the LDR data is homogeneous.

### Normality Test

The normality test tests whether a regression model, the independent variable and the dependent variable or both have a normal distribution or not. Testing was carried out using the Kolmogorov-Smirnov test. If the significance value is  $> 0.05$ , the data is considered normal (Ghozali, 2016).

**Table 4. Normality Test for the 2017-2019 Period**

Model	Before the Normal Data			After the Normal Data		
	Statistic	df	Sig.	Statistic	df	Sig.
$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	0.091	804	0.000	0.035	620	0.067
$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	0.050	804	0.000	0.030	620	0.200*

The Kolmogorov-Smirnov significance value for the initial data for both models is  $0.000 < 0.05$  so it is concluded that the data is not normal. Normality occurs after eliminating 184 extreme research data from 804 to 620 data with a Kolmogorov-Smirnov significance value of  $>0.05$  for both models so that the data can be considered as normal data.

**Table 5. Normality Test for the 2020-2021 Period**

Model	Before the Normal Data			After the Normal Data		
	Statistic	df	Sig.	Statistic	df	Sig.
$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	0.184	536	0.000	0.042	400	0.095
$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	0.123	536	0.000	0.035	400	0.200*

In the period from 2020 to 2021, the Kolmogorov-Smirnov significance value for the initial data for both models is  $0.000 < 0.05$ , so it is concluded that the data is not normal. Normality occurs after eliminating 136 extreme research data from 536 to 400 data with a Kolmogorov-Smirnov significance value of  $> 0.05$  for both models so that they can be considered as normal data.

### Heteroscedasticity Test

The heteroscedasticity test is intended to test whether there are circumstances where a constant variance error occurs. The testing was carried out using the Glejser Test. If the significant value of each independent variable is  $> 0.05$ , heteroscedasticity does not occur (Ghozali, 2016).

**Table 6. Heteroscedasticity Test for the 2017-2019 Period**

Variables	$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3$	$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3$
	$BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	$BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$
	Sig.	Sig.
BOD	0.588	0.131
CBC	0.121	0.675
BSM*	0.586	0.053
CAP*	0.836	0.051
CAR*	0.757	0.330
LDR*	0.083	0.227

All independent and control variables for both models each provide a significance value of >0.05. So, it is concluded that the variable does not experience heteroscedasticity.

**Table 7. Heteroscedasticity Test for the 2020-2021 Period**

Variables	$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3$	$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it}$
	$BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	$+ \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$
	Sig.	Sig.
BOD	0.219	0.065
CBC	0.870	0.606
BSM*	0.330	0.058
CAP*	0.240	0.051
CAR*	0.968	0.580
LDR*	0.326	0.821

In the 2020-2021 period, all independent and control variables for the two models each provide a significance value of >0.05. So, it is concluded that the variable does not experience heteroscedasticity.

### Multicollinearity Test

The multicollinearity test is intended to test whether a correlation occurs between the independent variables. Testing is carried out using the tolerance value and VIF (Variant Inflation Factor). If the tolerance value is > 0.1 and the VIF value is < 10, then multicollinearity does not occur (Ghozali, 2016).

**Table 8. Multicollinearity Test for the 2017-2019 Period**

Variables	$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3$	$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3$		
	$BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	$BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$		
	Tolerance	VIF	Tolerance	VIF
BOD	0.969	1.032	0.969	1.032
CBC	0.876	1.142	0.876	1.142
BSM*	0.033	30.676	0.033	30.676
CAP*	0.037	27.330	0.037	27.330
CAR*	0.306	3.264	0.306	3.264
LDR*	0.909	1.100	0.909	1.100

For all independent and control variables (CAR\*; LDR\*), the two models each provide a tolerance value of > 0.1 and a VIF value < 10. So, it is concluded that these variables do not experience multicollinearity. There are two control variables (BSM\*; CAP\*) that experience multicollinearity



because the tolerance value is  $< 0.1$  and the VIF value is  $> 10$ . However, since it happens to the control variable, if this test does not meet the requirements, it can still be continued to the next stage. Control variables (BSM\*; CAP\*) have a relationship between variables because the proxies of each variable are similar where BSM is taken from the logarithm of total assets while CAP is taken from the logarithm of total capital.

**Table 9. Multicollinearity Test for the 2020-2021 Period**

Variables	ROA <sub>it</sub> = $\alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$		ROE <sub>it</sub> = $\alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	
	Tolerance	VIF	Tolerance	VIF
BOD	0.979	1.022	0.979	1.022
CBC	0.577	1.733	0.577	1.733
BSM*	0.022	45.898	0.022	45.898
CAP*	0.027	37.242	0.027	37.242
CAR*	0.198	5.045	0.198	5.045
LDR*	0.892	1.121	0.892	1.121

In the 2020-2021 period, all independent and control variables (CAR\*; LDR\*) for the two models each provide a tolerance value  $> 0.1$  and a VIF value  $< 10$ . So, it is concluded that the variable does not experience multicollinearity. There are two control variables (BSM\*; CAP\*) that experience multicollinearity problems because the tolerance value is  $< 0.1$  and the VIF value is  $> 10$ . However, because it occurs on the control variable, if this test does not qualify, it can still proceed to the next stage. Control variables (BSM\*; CAP\*) have a relationship between variables because the proxies of each variable are similar where BSM is taken from the logarithm of total assets while CAP is taken from the logarithm of total capital.

**Autocorrelation Test**

The autocorrelation test is intended to test whether in the linear regression model there is a correlation between the confounding errors in the previous period (t-1). The test was carried out by comparing the Durbin-Watson values from the regression results and the values in the Durbin-Watson table. If the Durbin-Watson value is between du and 4-du, autocorrelation does not occur (Ghozali, 2016).

**Table 10. Autocorrelation Test for the 2017-2019 Period**

Model	du	DW	4-du
ROA <sub>it</sub> = $\alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	1,831	1,903	2,169
ROE <sub>it</sub> = $\alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	1,831	1,956	2,169

The Durbin-Watson value for the ROA model is 1.903 and for the ROE model is 1.956. The value is between 1.831 (du) and 2.169 (4-du). Thus, it is concluded that autocorrelation does not occur in the two models in the research data.

**Table 11. Autocorrelation Test for the 2020-2021 Period**

Model	du	DW	4-du
$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	1,831	1,868	2,169
$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	1,831	1,890	2,169

In the 2020-2021 period, the Durbin-Watson value for the ROA model is 1.868 and for the ROE model it is 1.890. The value is between 1.831 (du) and 2.169 (4-du). Thus it is concluded that autocorrelation does not occur in both models in the research data.

### Hypothesis Testing

This study examines the influence of implementing the provisions of Rural Banks governance on the financial performance of Rural Banks in Central Java and the Special Region of Yogyakarta.

**Table 12. Hypothesis Testing for the 2017-2019 Period**

Variables	$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$		$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	
	B	Sig.	B	Sig.
(Constant)	-0.023	0.013	-0.353	0.000
BOD	0.005	0.001	0.026	0.001
CBC	-0.010	0.044	-0.060	0.031
BSM*	-0.023	0.000	0.215	0.000
CAP*	0.029	0.000	-0.192	0.000
CAR*	-3.470E-6	0.947	0.000	0.194
LDR*	0.000	0.000	0.002	0.000
Sig. F	0.000		0.000	
F	30.487		47.985	
Adjusted R <sup>2</sup>	0.222		0.313	

The model fit test aims to determine whether the model is appropriate or fit in predicting the dependent variable. Statistical calculations are considered significant if the statistical test value is <0.05 (Ghozali, 2016). The sig.F value of 0.000 <0.05 means that the independent and control variables can simultaneously explain the dependent variable. The regression model can be used to predict financial performance (ROA and ROE) or the regression model can be used to carry out the required tests and the results are able to explain the problems under research.

**Table 13. Hypothesis Testing for the 2020-2021 Period**

Variables	$ROA_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$		$ROE_{it} = \alpha + \beta_1 BOD_{it} + \beta_2 CBC_{it} + \beta_3 BSM_{it} + \beta_4 CAP_{it} + \beta_5 CAR_{it} + \beta_6 LDR_{it} + \epsilon_{it}$	
	B	Sig.	B	Sig.
(Constant)	-0.072	0.000	-0.555	0.000
BOD	-0.003	0.052	-0.008	0.329
CBC	-0.007	0.136	-0.022	0.370
BSM*	0.004	0.594	0.302	0.000

Variables	ROA <sub>it</sub> = α + β <sub>1</sub> BOD <sub>it</sub> + β <sub>2</sub> CBC <sub>it</sub> + β <sub>3</sub> BSM <sub>it</sub> + β <sub>4</sub> CAP <sub>it</sub> + β <sub>5</sub> CAR <sub>it</sub> + β <sub>6</sub> LDR <sub>it</sub> + ε <sub>it</sub>		ROE <sub>it</sub> = α + β <sub>1</sub> BOD <sub>it</sub> + β <sub>2</sub> CBC <sub>it</sub> + β <sub>3</sub> BSM <sub>it</sub> + β <sub>4</sub> CAP <sub>it</sub> + β <sub>5</sub> CAR <sub>it</sub> + β <sub>6</sub> LDR <sub>it</sub> + ε <sub>it</sub>	
	B	Sig.	B	Sig.
CAP*	0.006	0.434	-0.263	0.000
CAR*	0.000	0.002	0.001	0.001
LDR*	0.000	0.000	0.001	0.000
Sig. F	0.000		0.000	
F	12.396		30.088	
Adjusted R <sup>2</sup>	0.146		0.304	

The regression model can be used to predict financial performance (ROA and ROE) or the regression model can be used to carry out the required tests and the results are able to explain the things being studied.

### Influence of the Board of Directors on Rural Bank Financial Performance

#### 1. The 2017-2019 Period

Based on the t-test of the ROA model, the significance value of β<sub>1</sub> of BOD is 0.001 < 0.05 and β<sub>1</sub> is 0.005 > 0. Meanwhile from the t-test of the ROE model, the significance value of β<sub>1</sub> of BOD is 0.001 < 0.05 and β<sub>1</sub> is 0.026 > 0. Thus, it is concluded that in implementing the governance provisions of Rural Bank, the Board of Directors has a positive influence on Rural Bank's financial performance. In other words, the more the Board of Directors implements the governance provisions of Rural Bank, the better the financial performance of Rural Bank. Based on the description above, H1's statement which states that in implementing the governance provisions of Rural Banks the Board of Directors has a positive influence on the financial performance of Rural Banks is accepted in this study. The Board of Directors is part of the executive management of a company that is assigned and responsible for formulating policies, setting strategies and overseeing company operations (Ahmed et al, 2013). Previous research related to governance conducted by Utama (2011) found that Corporate Governance practices have a positive influence on bank performance. Other research evidence conducted by Andres and Vallelado (2008) related to the effect of the size of the Board of Directors which is a governance proxy for bank performance shows that the size of the Board of Directors has a positive influence on bank performance.

#### 2. The 2020-2021 Period

For the 2020-2021 period, based on the t-test of the ROA model, the β<sub>1</sub> significance value of BOD is 0.052 > 0.05. Meanwhile, based on the t-test of the ROE model, the significance value of β<sub>1</sub> of BOD is 0.329 > 0.05. Thus, it is concluded that in implementing Rural Bank governance provisions, the Board of Directors has no influence on Rural Bank's financial performance. Based on the description above, H1's statement stating that in implementing governance provisions of Rural Banks the Board of Directors has a positive influence on the financial performance of Rural Banks is rejected in this study.

### The Influence of Board Composition on Rural Bank's Financial Performance

#### 1. The 2017-2019 Period

Based on the t-test of the ROA model, the significance value of β<sub>2</sub> from CBC was 0.044 < 0.05 and β<sub>2</sub> was -0.010 < 0. Meanwhile, based on the t-test of the ROE model the significance value of β<sub>2</sub> from CBC was 0.031 < 0.05 and β<sub>2</sub> is -0.060 < 0. Thus, it is concluded that implementing the provisions of Rural Bank governance, the composition of the Board has a negative influence on the financial performance of Rural Bank. In other words, the fewer the Board Composition in implementing the provision of Rural Bank's governance, the better the Rural Bank's financial performance. Based on the

description above, the H2 statement which states that in implementing the provisions of Rural Bank governance, the Board of Directors has a positive influence on the financial performance of Rural Banks, is rejected in this study.

## 2. The 2020-2021 Period

In the 2020-2021 period, based on the t-test of the ROA model, the significance value of  $\beta_2$  from CBC is  $0.136 > 0.05$ . Meanwhile, based on the t-test of the ROE model, the significance value of  $\beta_2$  from CBC is  $0.370 > 0.05$ . Thus, it is concluded that in implementing the provisions of Rural Bank governance, the composition of the Board has no influence on the financial performance of Rural Banks. Thus, the statement H2 which states that implementing the provisions of Rural Bank governance, the composition of the board has a positive influence on the financial performance of Rural Banks, is rejected in this study.

The implementation of the provisions for Rural Bank governance also regulates the fulfillment of independent commissioners in the organizational structure. The provisions stipulate that Rural Banks with a minimum core capital of IDR 50 billion are required to have at least 1 (one) Independent Commissioner. Meanwhile, Rural Banks with core capital of over IDR 80 billion are required to have Independent Commissioners of at least 50% of the total number of members of the Board of Commissioners. As a result, Rural Banks with core capital below IDR 50 billion can have a Board of Commissioners but not necessarily an Independent Commissioner.

## *Conclusion*

In implementing the provisions of Rural Bank governance, the Board of Directors had a positive influence on Rural Bank's financial performance in the 2017-2019 period. In other words, the more the Board of Directors implements the provisions of Rural Bank governance, the better the financial performance of Rural Bank. However, in the 2020-2021 period, in implementing the provisions of Rural Bank governance, the Board of Directors has no influence on Rural Bank's financial performance.

In implementing the provisions of Rural Bank governance, the composition of the Board has a negative influence on Rural Bank's financial performance in the 2017-2019 period as well as in the 2020-2021 period. In other words, the fewer the Board Composition in implementing the provisions of Rural Bank's governance, the better the Rural Bank's financial performance.

## *Limitation and Future Research*

This study has an adjusted  $R^2$  value of 0.222 for model 1 and 0.313 for model 2. It means that the explanatory strength of all the controlled independent variables toward the dependent variable: financial performance is 22.2% for model 1 (ROA) and is 31.3% for model 2 (ROE) while the rest is explained by other factors outside the model. Subsequent research can add to the independent variables that affect financial performance which are still part of corporate governance practices, for instance the number of directors. This study employed a sample of Rural Banks which was limited to head offices in Central Java and the Special Region of Yogyakarta. In order to increase the generalizability of the research results, further research can expand the scope of the Rural Banks outside Central Java and the Special Region of Yogyakarta. Then, this study was limited to Rural Banks and had not taken into account other financial institutions in the region. In order to increase the generalizability of the research results, further research may consider other financial institutions in the region.

### Acknowledgment

We would like to thank the parties involved in the process of compiling the research, in this case Bank Indonesia and the Financial Services Authority. Thank you for the support and assistance during the research process, so that this research can be completed on time.

### References

- Adams, R. B., & Mehran, H. (2012). Bank board structure and performance: Evidence for large bank holding companies. *Journal of Financial Intermediation*, 21(2), 243–267. <https://doi.org/10.1016/j.jfi.2011.09.002>
- Andres, P. de, & Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of Banking & Finance*, 32(12), 2570–2580. <https://doi.org/10.1016/j.jbankfin.2008.05.008>.
- Arslan, M., & Alqatan, A. (2020). Role of institutions in shaping corporate governance system: evidence from emerging economy. *Heliyon*, 6(3), e03520. <https://doi.org/10.1016/j.heliyon.2020.e03520>
- Donou-Adonsou, F., & Sylwester, K. (2017). Growth effect of banks and microfinance: Evidence from developing countries. *Quarterly Review of Economics and Finance*, 64, 44–56. <https://doi.org/10.1016/j.qref.2016.11.001>
- Galal, M. (2017). Asian Economic and Financial Review CORPORATE GOVERNANCE EVIDENCE FROM EGYPT AND BANKS ' PERFORMANCE : 2 . REVIEW OF LITERATURE AND HYPOTHESIS DEVELOPMENT. 7(12), 1326–1343. <https://doi.org/10.18488/journal.aefr.2017.712.1326.1343>
- Ghozali, I. (2016). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23 Edisi 8*. Badan Penerbit Undip.
- Hamada, M. (2010). Commercialization of Microfinance in Indonesia: The Shortage of Funds and the Linkage Program. *The Developing Economies*, 48(1), 156–176. <https://doi.org/10.1111/j.1746-1049.2010.00102.x>
- Hoque, M. Z., Islam, R. M., & Ahmed, H. (2013). *Corporate Governance and Bank Performance: The Case of Bangladesh* (SSRN Scholarly Paper No. 2208903). <https://doi.org/10.2139/ssrn.2208903>
- Mandala, N., Kaijage, E., sdwddssAduda, J., & Iraya, C. (2018). *An Empirical Investigation of the Relationship between Board Structure and Performance of Financial Institutions in Kenya*. 7(1), 37–57.
- Rahman, M. A., & Islam, J. (2018). The impact of corporate governance on bank performance: Empirical evidence from Bangladesh. *Global Journal of Management and Business Research*, 18(C8), 49–54.
- Sapci, A., & Miles, B. (2019). Bank size, returns to scale, and cost efficiency. *Journal of Economics and Business*, 105(May 2018), 105842. <https://doi.org/10.1016/j.jeconbus.2019.04.003>
- Sekaran, U., & Bougie, R. (2020). *Research Method For Business: A Skill Building Approach*. John Wiley & Sons Ltd.
- Spong, K., & Sullivan, R. J. (2007). Corporate governance and bank performance. *Corporate Governance in Banking. A Global Perspective*, Edward Elgar, 40–61.
- Trinugroho, I., Ariefianto, M. D., Nugroho, L. I., Sawitri, H. S. R., Prabowo, M. A., & Hakim, L. (2018). What Determine the Viability of Rural Banks? Evidence from Indonesia. *International Journal of Economics & Management*, 12(2).
- Tunay, K. B., & Yüksel, S. (2017). The relationship between corporate governance and foreign ownership of the banks in developing countries. *Contaduría y Administración*, 62(5), 1627–1642.

<https://doi.org/10.1016/j.cya.2017.05.007>

Utama, C. A., & Musa, H. (2011). The Causality between Corporate Governance Practice and Bank Performance: Empirical Evidence from Indonesia. *Gadjah Mada International Journal of Business*, 13(3).

### Other

Otoritas Jasa Keuangan.2015. Booklet Perbankan Indonesia. Jakarta

Otoritas Jasa Keuangan.2015. Peraturan Otoritas Jasa Keuangan Nomor 4/POJK.03/2015 tentang Penerapan Tata Kelola bagi BPR. <https://www.ojk.go.id/id/kanal/perbankan/regulasi/peraturan-ojk/Pages/Tata-BPR.aspx>

Otoritas Jasa Keuangan. 2016. Peraturan Otoritas Jasa Keuangan Nomor 12/POJK.03/2016 tentang Kegiatan Usaha dan Wilayah Jaringan Kantor BPR berdasarkan Modal Inti. <https://www.ojk.go.id/id/kanal/perbankan/regulasi/peraturan-ojk/Pages/POJK-Nomor-12.POJK.03.2016.aspx>

Otoritas Jasa Keuangan. 2020. Peraturan Otoritas Jasa Keuangan Nomor 34/POJK.03/2020 tentang Kebijakan Bagi Bank Perkreditan Rakyat Dan Bank Pembiayaan Rakyat Syariah Sebagai Dampak Penyebaran *Corona Virus Disease* 2019.

<https://www.ojk.go.id/id/regulasi/Pages/Kebijakan-bagi-Bank-Perkreditan-Rakyat-dan-Bank-Pembiayaan-Rakyat-Syariah-Sebagai-Dampak-Penyebaran-Coronavirus-.aspx>

### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).