

EFFECT OF CAPITAL, LIQUIDITY, AND COMPANY SIZE ON PROFITABILITY IN BANKING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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Abstract: Identifying the impact of capital, liquidity, and firm size on profitability in banking companies listed on the Indonesia Stock Exchange is the goal of this study. Quantitative data are employed, and the annual financial statements of banking companies for the reporting years 2019–2021 serve as the secondary data source. Purposive sampling was used to pick the sample, which included data from 41 companies out of a total of 123 companies. Multiple linear regression analysis is used in this study with the SPSS version 25 program. Results of testing the hypothesis that capital (CAR), liquidity (LDR), and company size (Total Assets) have a positive and significant impact on profitability (ROA). Capital (CAR), liquidity (LDR), and business size (Total Assets) all simultaneously have a favorable and significant impact on profitability (ROA).

Keywords: capital (CAR), liquidity (LDR), firm size (Total Assets), profitability (ROA)

Introduction

According to the ROA ratio which shows a ratio that is below the benchmark set by Bank Indonesia, which is 1.5% and even a negative ratio, the Covid-19 pandemic has had an influence on banking profitability. In 2019 there were 6 banking companies that had a negative ROA value, then in 2020 and 2021 it increased to 8 banking companies that had a negative ROA value. This is quite worrying and should not happen in the long term because it will have an impact on bank losses. On March 9, 2020 OJK issued SE OJK regulation No.3/SEOJK.04/2020 regarding share buybacks, but not all banks listed on the IDX comply with these regulations, while for banks that comply with these regulations, capital adequacy is an important thing to avoid material negative impact. CAR ratio shows the banks ability to provide capital for business expansion and to manage risks. Banks have sufficient capital, which is useful for holding assets that have the ability to be exposed to risk, such as loans that are channeled, assessed by the CAR ratio (Sudarmawanti & Pramono, 2017). Research conducted by Astutiningsih and Baskara (2018), Wibowo (2017), Anggari and Dana (2020) demonstrate that CAR affects ROA in a positive and significant way. Korri and Baskara (2019) demonstrate that CAR affects ROA in a positive no significant way, while the results of research by Hantono (2017) demonstrate that CAR affects profitability in a negative way.

There was a slowdown in credit expansion and tightening of liquidity where the number of loans given by banking companies from 2019 to 2021 fluctuated. However, the highest decline in lending occurred in banking companies from 2019 to 2020, as many as 28 companies. Meanwhile, from 2020 to 2021, only 17 companies experienced a decline in lending. This indicates that banks are increasingly conservative in providing credit for fear of reducing liquidity if there are customers who withdraw funds suddenly which will make it difficult for banks to fulfill their obligations so that the decline in credit disbursed causes little profit for banks through lower interest income. LDR is a ratio that reflects lending activities. Research conducted by Korri and Baskara (2019) and Astutiningsih and Baskara (2018) demonstrate that LDR affects ROA in a positive way. Different research results were found by Wibowo (2017) which demonstrate LDR affects ROA in a negative and significant way.

Throughout 2019-2021 there was a phenomenon where banking assets with issuer codes AMAR, BBYB, BJTM, and BMAS increased but were inversely proportional to the decline in ROA in these companies. According to theory, the higher the ROA, the higher the profit earned from each fund invested in total assets, so this shows that the bank has not been effective and efficient in employing its assets in operating activities to make profits. Miswanto et al. (2017) and Astutiningsih and Baskara (2018) demonstrate that the size of the company affects profitability in a positive and significant way. Different research results were found by Asri and Suarjaya (2018) and Parvin et al. (2019) demonstrate that the size of the company affects profitability in a no significant way. Pranata (2015) found that CAR, LDR, and Firm Size simultaneously affect profitability. Only the NPL variable has an impact on profitability, according to research by Mustafa and Sulistyowati (2022), while the CAR, LDR, and Size factors have no bearing. These factors do not, however, have a large impact on profitability simultaneously. According to the issues found and the inconsistent findings of earlier research. So that this research is carried out further which is expected to

help contribute ideas that are relied upon to help smooth the business activities of banking companies and as consideration in increasing profitability through capital, liquidity, and company size.

Method

The methodology of this research, using a quantitative research type with a descriptive approach, places the research on the IDX official website with a research time from February to July 2022. There are 47 banking companies as the population of this study. After then, only 41 companies were chosen as samples in the sample selection process using the purposive sampling technique. The independent variables in this study consist of capital projected by CAR (X1), liquidity projected by LDR (X2) and firm size (X3) while the dependent variable is profitability projected by ROA (Y). Multiple linear regression is the data analysis method employed in this study. Using the SPSS version 25 application, multiple linear regression analysis was tested. Before performing multiple linear regression testing, it was preceded by classical assumption test. Classical assumption test is a prerequisite before performing multiple linear regression test. To test the hypothesis, it is best to avoid deviations from the classical assumptions. The test requirements that must be met are: 1) Normality test, 2) Multicollinearity test, 3) Heteroscedasticity test, 4) Autocorrelation test. After the classical assumption test has been carried out and has obtained assumptions regarding the data used in the study, the magnitude of the effect on each data in this study can be calculated using multiple linear regression equations. A hypothesis test can be used in this study to ascertain the impact of each variable. The process of testing hypotheses involves: 1) Analysis of the coefficient of determination (R²), 2) t statistical test (partial test), 3) F test (simultaneous test).

Result and Discussion

Results

Classical Assumption Test

Classical Assumption Test has been carried out with the overall test results free from interference with the following results:

1. The data was normally distributed since the Kormogolov-Smirnov normality test resulted in a significance result of 0.156, which was greater than 0.05.
2. The independent variable has a VIF value of less than 10 and a tolerance value of more than 0.1, according to the findings of the multicollinearity test. Therefore, the regression model can be said to be free of multicollinearity diseases.
3. The results of the heteroscedasticity test indicate that each independent variable's significance level is significantly higher than 0.05. Therefore, heteroscedasticity disorder is unavailable.
4. The results of the autocorrelation test, value DW test of 2.133 above the upper limit (du) and below the value of 4 - du, so that the regression model of this study is free from autocorrelation disorders.

Classical Assumption Test has been carried out with the overall test results free from these disturbances. This indicates that the regression model can be continued in the next analysis, namely multiple linear regression analysis.

Multiple Regression Analysis

**Tabel 1. Multiple Regression Analysis
Multiple Linear Regression Analysis Results**

Variabel	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	-0,041	0,012	
CAR	0,031	0,011	0,247
LDR	0,016	0,007	0,197
Firm size	0,001	0,001	0,190

a. Dependent Variable: ROA

The results of multiple linear regression analysis obtained the equation:

$$\text{ROA} = -0,041 + 0,031 X_1 + 0,016 X_2 + 0,001 X_3 + e$$

The regression equation has the following meaning:

1. The constant of this regression is -0.041. That is, if all independent variables have a value of 0, then the ROA value is also -0.041.
2. CAR regression coefficient is 0.031. That is, if the CAR increases by 0.01, then the ROA value also increases by 0.031.

3. LDR regression coefficient is 0.016. That is, if the LDR increases by 0.01, then the ROA value also increases by 0.016
4. Firm Size regression coefficient is 0.001. That is, if the Company Size increases by 0.01, then the ROA value also increases by 0.001.

t Test Result

Tabel 2. t Test Coefficients^a

Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-,041	,012		-3,531	,001
	CAR	,031	,011	,247	2,925	,004
	LDR	,016	,007	,197	2,274	,025
	Firm size	,001	,001	,190	2,225	,028

a. Dependent Variable: ROA

According to table 2, the results of the above said SPSS test reveal the independent variables capital (X1), liquidity (X2), and firm size (X3) have a significant impact on the dependent variable, profitability, with significance values of 0.004, 0.025, and 0.028 respectively which are all less than the 0.05 significance level. According to the findings of the t test, hypotheses 1, 2, 3, and 4 can all be accepted because all independent factors significantly and positively affect the dependent variable.

Simultaneous Significance Test

Tabel 3. F Test ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,021	3	,007	8,782	,000 ^b
	Residual	,095	119	,001		
	Total	,116	122			

a. Dependent Variable: ROA

b. Predictors: (Constant), Firm size, CAR, LDR

Table 3 details the simultaneous effects of capital, liquidity, and company size on the profitability variable. Table 3 show significance value (Sig.), which is less than the 0.05 significance level according to the f test results, is 0.000, indicating that the simultaneous effects of capital, liquidity, and company size on profitability are significant.

Test of The Coefficient of Determination (R²)

To quantify the simultaneous impact of the independent and dependent factors on the dependent variable, use the coefficient of determination with a coefficient value ranging from 0 to 1. The R² value that approaches one shows that the independent variable has nearly all of the knowledge necessary to predict the dependent variable. Table 4 below shows the findings of the analysis of the coefficient of determination:

Tabel 4. Test of the Coefficient of Determination (R²) Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,426 ^a	,181	,161	,028234

a. Predictors: (Constant), Firm size, CAR, LDR

In Table 4 it is shown that the R value is 42.6%. This means that the independent variable has an influence that is tied to the dependent variable, because the R value is above 5%. Furthermore, the value of Adjusted R Square (R²) is 16.1%, meaning that 16.1% of the independent variables can affect the dependent variable, while 83.9% cannot be explained by the variables studied.

Discussion

Capital's (CAR) influence on profitability (ROA)

Results of testing the first hypothesis (H1) demonstrate that capital affects profitability in a positive and significant way. Profitability will move in line with the increase in CAR, because the better the ability of the bank to handle credit and risky productive assets, thus causing the banks performance to also increase. It is concluded that the increase in CAR is in line with profitability. The results of this study are in line with the research of Astutiningsih and Baskara (2018), Wibowo (2017), Pranata (2015) and Anggari and Dana (2020) through their research results, also finding that CAR partially has a positive and significant effect on ROA.

Liquidity's (LDR) influence on profitability (ROA)

Results of testing the second hypothesis (H2) demonstrate that liquidity affects profitability in a positive and significant way. The activity of channeling bank credit is a reflection of the LDR. More interest income will be received if more credit is given, which will be followed by increased profitability. This illustrates that the bank has been efficient in disbursing credit. LDR increases up to a certain limit, the loan disbursement will increase thereby increasing interest income which will have an impact on increasing profitability (ROA). The results of this study are in line with research by Astutiningsih and Baskara (2018), Pranata (2015), Korri and Baskara (2019) through their research results, also finding that LDR partially has a positive and significant effect on ROA.

Firm size's influence on profitability (ROA)

Results of testing the third hypothesis (H3) demonstrate that firm size affects profitability in a positive and significant way. The larger the company, the more capable it will be to provide loans in a larger capacity because if a company can take large amounts of credit, the interest income earned from these loans will also be large. The larger the company will have the opportunity to gain the trust of wider investors so that the impact on stock prices increases. It is concluded that the larger the size of the company will be in line with the high profitability. The results of this study were also presented by Astutiningsih and Baskara (2018), Miswanto et al. (2017), Pranata (2015), Anggari and Dana (2020) through their research results, also found that company size partially had a significant positive effect on ROA.

Capital's (CAR), liquidity's (LDR), and firm size's influence on profitability (ROA)

Results of testing the fourth hypothesis (H4) demonstrate that capital, liquidity and firm size have an effect on profitability. The fourth hypothesis (H4) is accepted, according to the findings of the statistical analysis. Based on the findings of this study, it can be deduced that capital (CAR), liquidity (LDR), and company all simultaneously affect profitability with a significance value less than 0.05 for each of the three independent variables (ROA).

Conclusion

The following conclusions can be taken from the analysis and discussion in the previous chapter: 1) capital affects profitability in a positive and significant way. 2) liquidity affects profitability in a positive and significant way. 3) firm size affects profitability in a positive and significant way. 4) capital, liquidity, and company size simultaneously affects profitability in a significant way. Then the implications of the research results for banking companies can increase the amount of capital or reduce the level of risk-weighted assets to maintain a high level of capital adequacy. Then in providing credit, banking companies should not only extend credit in large quantities but in providing credit must go through considerations where customers who receive credit have the ability to repay borrowed loans so that the level of bad loans will decrease and in addition to increasing the number of assets, they must also able to use these assets to the fullest to generate profits. So that the profit generated by the company will be higher. Then for the academic world, it can be used to determine the variables that affect the profitability (ROA) of banks listed on the IDX. The results of this test can be used to broaden understanding, add references for further research.

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