Determinant of Return On Invested Capital
Empirical Study of Registered Conventional Commercial Banks on the Indonesian Stock Exchange for the 2017 - 2021 period

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ABSTRACT

The banking sector is one of the most important sectors for the modern economy, because almost every industry involved in financial activities always requires banking services. This encourages the banking industry to function properly as seen from the capital it has. The amount of Third Party Funds for commercial banks continues to increase, reflecting that banking growth is getting better. Therefore, it is important to assess banking financial performance as measured by banking financial ratios. This is the reason why researchers are interested in conducting research on what influences the ROIC of Conventional Commercial Bank Companies. This study aims to analyze the effect of Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loans (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC) on ROIC in Conventional Commercial Bank companies listed on the Indonesia Stock Exchange for the 2017-2021 period. The type of research used in this research is quantitative research with non-probability sampling technique using purposive sampling design. The population in this study were 46 banking sub-sector companies listed on the Indonesia Stock Exchange. The type of data used in this study is secondary data in the form of annual financial reports of conventional commercial bank companies listed on the Indonesia Stock Exchange for 2017-2021. The data analysis technique used is the eviews 10 program. The processing method used in this study is panel data regression analysis. The results showed that partially there was a significant influence on Net Interest Margin (NIM) (regression coefficient value of 2.112874, t count value 2.973486 > t table 2.034515 and a significant value of 0.0070 <0.05) and Cash Ratio (CR) (regression coefficient value of 0.001887, t count value 4.640386 > t table 2.034515 and a significance value of 0.0001 <0.05) on ROIC. While Capital Adequacy Ratio (CAR) (t-count value 0.598328 <t-table 2.034515 and significance value 0.5557> 0.05), Loan to Deposit Ratio (LDR) (t-count value 1.310563 <t table 2.034515 and significance value 0.2035 > 0.05), Non Performing Loans (NPL) (t count value 0.393639 < t table 2.034515 and a significance value of 0.6976 > 0.05), and Intellectual Capital (IC) (t count value 0.948279 < t table 2.034515 and a significance value of 0.3533 > 0.05) partially had no effect on ROIC. In addition, the results of simultaneous research Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loans (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC) affect ROIC is indicated by the calculated f value of 65.88711 > f table of 2.445259 and a significance value of 0.000000 <0.05.

Keywords: CAR, LDR, NPL, NIM, IC, ROIC

INTRODUCTION

Banking is one sector that requires funds from the capital market. Since almost every industry involved in financial activities always requires banking services, the banking sector is very important for the modern economy. As a result, the banking industry needs to function well, judging from the capital it has. Banking generally still dominates the financial sector in developing countries. As of 2021, there are 4 public banks in Indonesia,

27 Regional Development Banks, 68 National Private Banks, and 8 Foreign Banks (www.bps.go.id, accessed on 29 September 2022). The large number of existing banks will certainly increase the risks they will face, so that if there are large banks that have systematic risks, they can pose a threat to the Indonesian economy. Thus, banks must be able to continue to maintain public trust related to their function as agents of trust.

After the 1998 crisis, public confidence in banking began to return. And there has been an increase from year to year in the tendency to deposit money in banks and trust banks as financing institutions. This can be seen from the third party funds (DPK) that banks can collect in 2017-2021. So from the explanation above, the problems found in this research are 1. There is an increase in Third Party Funds (DPK) in commercial banks every year in the 2017-2021 period. This shows that banking growth is increasing and requires banks to continue to improve their financial performance and maintain the bank's health level. 2. There are changes in the annual financial performance of conventional commercial banks from year to year which is proxied by Return On Invested Capital (ROIC). 3. There are inconsistencies in the results of previous studies regarding the independent variables Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC) which affects Return On Invested Capital (ROIC).

The formulation of the problem in this research is whether the Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC) are partially and simultaneously influence the Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies?

So based on the problem formulation above, the aim of this research is to find out whether the Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC) partially and simultaneously influences Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies.

METHODS

The type of research used in this research is quantitative research with a descriptive approach. Research subjects are research subjects such as people, objects, companies, etc. that will be researched which contain research objects. Conventional commercial banks that are listed on the Indonesia Stock Exchange and publish their complete financial reports for the 2017-2021 period are the research subjects in this study. The research object in this study is the dependent variable in the form of Return On Invested Capital (ROIC), and the independent variables in the form of Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC). This research was conducted at Bank Indonesia and the Indonesian Stock Exchange via internet access to each company's website or the official website of the Indonesian Stock Exchange (www.idx.id). This research was conducted from February 2022 to July 2023.

The sampling technique used in this research is the Non Probability Sampling technique, namely Purposive Sampling. The criteria for sampling in this study which have been adjusted to the title to be studied are as follows: 1.) Conventional Commercial Banks that have been and are still listed on the Indonesia Stock Exchange as issuers during the 2017-2021 period. 2.) Conventional Commercial Banks which are included in the Business Activity Commercial Bank (BUKU) 4 category which are listed on the Indonesian Stock Exchange. 3.) Conventional Commercial Banks that have published complete annual financial reports for the 2017-2021 period.

The data analysis used in this research is that the researcher uses a panel data regression testing method which is processed using eviews 10 software which aims to test and analyze the influence of the independent variables consisting of CAR, LDR, NPL, NIM, CR, and VAIC on the dependent variable profitability as measured by ROIC. The

panel data regression method has three models consisting of the Common Effect Model, Fixed Effect Model, and Random Effect Model.

1. Chow test, if the probability value (cross-section chi-square) < 0.05 then H0 is rejected or use the fixed effect model, but if the probability value (cross section chi-square) > 0.05 then H0 is accepted or use common effect model.

2. Hausman test, if the probability value (cross-section chi-square) < 0.05 then H0 is rejected or use the fixed effect model, but if the probability value (cross section chi-square) > 0.05 then H0 is accepted or use random effect model.

3. Lagrange Multiplier (LM) Test. If the LM statistical value is greater than the chi-square statistical value as a critical value and the p-value is significant < 0.05, then H0 is rejected. This means that the appropriate estimate for the panel data regression model is the Random Effect Model. However, if the LM statistical value is smaller than the chi-square statistical value as a critical value and the p-value is significant > 0.05, then H0 is accepted or the Common Effect Model is used.

4. Normality Test. The aim of the normality test is to test whether in the regression model, confounding or residual variables have a normal distribution or not. If the probability value is > 0.05, then it can be said that the data is normally distributed. Meanwhile, if the probability value is <0.05, then it can be said that the data is not normally distributed.

5. Multicollinearity Test. The aim of the multicollinearity test is to test whether in the regression model a high or perfect correlation is found between the independent variables. If the correlation value is > 0.80 then H0 is rejected, so there is a multicollinearity problem. Meanwhile, if the correlation value is <0.80 then H0 is accepted, so there is no multicollinearity problem.

6. Heteroscedasticity Test. The aim of the heteroscedasticity test is to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. If the probability value is <0.05, then H0 is rejected, which means there is a heteroscedasticity problem. Meanwhile, if the probability value is > 0.05 then H0 is accepted, which means there is no heteroscedasticity problem.

7. Autocorrelation Test, The autocorrelation test aims to test whether in the linear regression model there is a correlation between the residual error in period t and the error in period t-1 (previous). If correlation occurs, it is called an autocorrelation problem. The method used to detect the presence or absence of autocorrelation can be done with the Durbin Watson test (DW test) (Ghazali, 2016).

RESULTS AND DISCUSSION
Research Result
1. Descriptive Analysis Results
Descriptive statistical analysis provides a general description or data used in this research.

Descriptive Analysis Table

	ROIC	CAR	LDR	NPLs	NIM	CR	VAIC
Mean	14.56829	22.38486	87.39400	2.646286	5.878000	29.84286	78.23143
Median	17.19000	22.10000	87.30000	2.790000	5.500000	16.08000	65.22000
Maximum	29.02000	29.58000	107.0200	4.300000	9.300000	142.4900	560.7600
Minimum	1.610000	16.80000	62,00000	1,000000	4.020000	11.31000	19.18000
Std. Dev.	8.315747	2.920022	9.573919	0.795709	1.338684	35.05742	85.83009
Skewness	0.134879	0.598071	-0.400551	-0.266737	0.996142	2.298042	5.271616
Kurtosis	1.710264	3.322602	3.521607	2.501344	3.077899	6.849201	30.26157
Jarque-Bera	2.531942	2.238288	1.332680	0.777658	5.797260	52.41300	1245.932
Probability	0.281965	0.326559	0.513585	0.677850	0.055099	0.000000	0.000000
Sum	509.8900	783.4700	3058,790	92.62000	205.7300	1044,500	2738.100
Sum Sq. Dev.	2351.156	289.9019	3116.438	21.52722	60.93056	41786.76	250471.3
Observations	35	35	35	35	35	35	35

Source: Processed with eviews 10

Based on the results of the descriptive analysis in the table above, it shows that the 7 samples of conventional banks listed on the Indonesia Stock Exchange were obtained from a total of 35 samples of data (N) used in this research. This data has 7 variable elements as follows: ROIC, CAR, LDR, NPL, NIM, CR, and VAIC. Each of these variables has a different mean, median, minimum, maximum and standard deviation.

2. Chow Test Results

Chow Test Results Table

Redundant Fixed Effects Tests
Equation: Untitled
Cross-section fixed effects test

Effects Test	Statistics	df	Prob.
Cross-section F	62.766672	(6.22)	0.0000
Chi-square cross-section	101.392061	6	0.0000

Source: Eviews 10 Processed Data

The results in the table above show that the probability of a chisquare cross-section of 0.0000 is lower than 0.05. So according to the decision criteria, this model uses the Fixed Effect Model. Because the chosen Chow test uses a fixed effect model, it is necessary to carry out further testing using the Hausman test to determine which fixed or random effect model to use.

3. Hausman Test Results

Table of Hausman Test Results

Correlated Random Effects - Hausman Test
Equation: Untitled
Cross-section random effects test

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	376.600031	6	0.0000

Source: Eviews 10 Processed Data

The results in the table above show that the random cross-section probability value of 0.0000 is lower than 0.05, meaning that the Hausman test results chose to use the fixed effect model. Based on the results of selecting the panel data model, to assess the panel data regression test, a fixed effect model is used to determine the results of this research.

Lagrange Multiplier (LM) Test Results

Table 4.4 Lagrange Multiplier (LM) Test Results
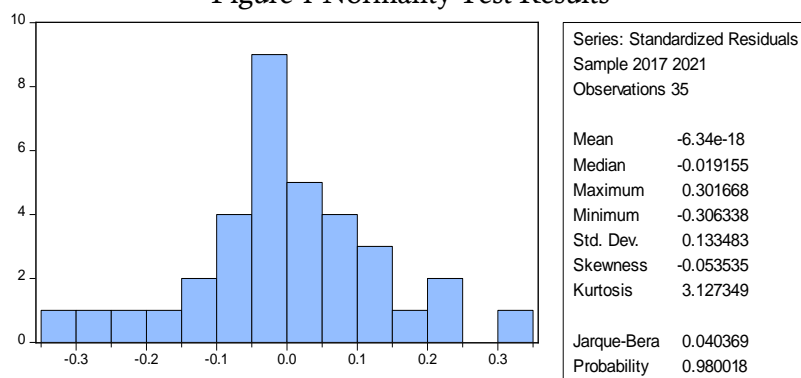
Lagrange multiplier (LM) test for panel data

Null (no rand. effect) Alternatives	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	17.53209	0.020508	17.55259
	(0.0000)	(0.8861)	(0.0000)
Honda	4.187133	0.143208	3.062013
	(0.0000)	(0.4431)	(0.0011)
King-Wu	4.187133	0.143208	2.759104
	(0.0000)	(0.4431)	(0.0029)
GHM	--	--	17.55259
	--	--	(0.0001)

Source: Eviews 10 Processed Data

It can be seen in the table above that the probability value is 0.0000 < 0.05, so the model for the Lagrange Multiplier (LM) test chosen is the REM model. The results of the test above show that the Chow test produces a probability value of 0.0000 which explains that the correct estimation model is the Fixed Effect Model. Then the Hausman test produces a probability value of 0.0000 which explains that the correct estimation model is the Fixed Effect Model. And the Lagrange multiplier test produces a probability value of 0.0000 which explains that the correct estimation model is the Random Effect Model. So the appropriate estimation model in this research is the Fixed Effect Model (FEM) because this model was selected twice in the Chow test and Hausman test.

5. Normality Test

Figure 1 Normality Test Results

Series: Standardized Residuals	
Sample 2017 2021	
Observations 35	
Mean	-6.34e-18
Median	-0.019155
Maximum	0.301668
Minimum	-0.306338
Std. Dev.	0.133483
Skewness	-0.053535
Kurtosis	3.127349
Jarque-Bera	0.040369
Probability	0.980018

In Figure 1 you can see the probability value is 0.980018. So it can be concluded that the model in this study has a normal distribution, because the probability value of 0.980018 is greater than 0.05.

6. Multicollinearity Test

Table of Multicollinearity Test Results

	CAR	LDR	NPLs	NIM	CR	VAIC
CAR	1,000000	-0.267813	-0.287825	0.164854	0.326479	0.093510
LDR	-0.267813	1,000000	0.232000	0.121551	0.368653	-0.147140
NPLs	-0.287825	0.232000	1,000000	-0.373827	0.136868	-0.251478
NIM	0.164854	0.121551	-0.373827	1,000000	-0.364998	-0.047061
CR	0.326479	0.368653	0.136868	-0.364998	1,000000	0.050357
VAIC	0.093510	-0.147140	-0.251478	-0.047061	0.050357	1,000000

Source: Eviews 10 Processed Data

Based on the results in the table above, it can be seen that none of the correlations between the independent variables have a value greater than 0.80. This means that in this regression model there is no multicollinearity or in this model there is no correlation between the independent variables.

7. Heteroscedasticity Test

Table of Heteroscedasticity Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	4.225175	5.673803	0.744681	0.4643
CAR	-0.000755	0.001386	-0.544510	0.5916
LDR	8.61E-07	0.000331	0.002604	0.9979
NPLs	0.084256	0.293454	0.287117	0.7767
NIM	-0.181441	0.382642	-0.474178	0.6400
CR	-0.000254	0.000219	-1.161429	0.2579
VAIC	-2.87E-06	2.19E-05	-0.131091	0.8969

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.459199	Mean dependent var	0.918395
Adjusted R-squared	0.164216	SD dependent var	1.001910
SE of regression	0.915958	Akaike info criterion	2.940859
Sum squared resid	18.45754	Schwarz criterion	3.518560
Log likelihood	-38.46504	Hannan-Quinn Criter.	3.140281
F-statistic	1.556697	Durbin-Watson stat	2.462206
Prob(F-statistic)	0.177613		

Source: Eviews 10 Processed Data

In the table above you can see that the probability value for each variable is greater than 0.05. So it can be concluded that heteroscedasticity does not occur in this model.

8. Autocorrelation Test

Autocorrelation Test Results Table

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-1.955247	3.806024	-0.513724	0.6126
CAR	-0.326346	0.550412	-0.592911	0.5593
LDR	-0.066782	0.562933	-0.118632	0.9066
NPLs	0.228581	0.119968	1.905358	0.0699
NIM	1.267453	0.486614	2.604637	0.0162
CR	0.890528	0.196297	4.536641	0.0002
VAIC	0.141240	0.087286	1.618130	0.1199

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.967791	Mean dependent var	2.461143
Adjusted R-squared	0.950223	SD dependent var	0.743769
SE of regression	0.165941	Akaike info criterion	-0.475820
Sum squared resid	0.605800	Schwarz criterion	0.101881
Log likelihood	21.32684	Hannan-Quinn Criter.	-0.276397
F-statistic	55.08704	Durbin-Watson stat	2.068830
Prob(F-statistic)	0.000000		

Source: Eviews 10 Processed Data

In the table above you can see the Watson Durbin value (d) of 2.068830 with a sample size (N) of 35 and an independent variable (K) of 6 with a significance value of 5% or 0.05. From this data, a dl value of 1.0974 was obtained, and a du value of 1.8835. And 4-dl = 2.9026 and 4-du = 2.1165. These results show that the Watson durbin (d) value lies between the du and 4-du values, which means that in this study there is no autocorrelation problem.

9. Panel Data Regression Analysis

The regression model chosen in this research is the Fixed Effect Model (FEM).

Table of Fixed Effect Model (FEM) Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	7.260893	10.53632	0.689130	0.4979
CAR	-0.153978	0.257347	-0.598328	0.5557

LDR	-0.080464	0.061396	-1.310563	0.2035	
NPLs	-0.214512	0.544947	-0.393639	0.6976	
NIM	2.112874	0.710571	2.973486	0.0070	
CR	0.188739	0.040673	4.640386	0.0001	
VAIC	0.003859	0.004069	0.948279	0.3533	

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.972928	Mean dependent var	14.56829
Adjusted R-squared	0.958161	SD dependent var	8.315747
SE of regression	1.700945	Akaike info criterion	4.178796
Sum squared resid	63.65068	Schwarz criterion	4. 756497
Log likelihood	-60.12893	Hannan-Quinn Criter.	4.378218
F-statistic	65.88711	Durbin-Watson stat	2.747860
Prob(F-statistic)	0.000000		

Source: Eviews 10 Processed Data

In the table above, it can be seen that the results of the panel data regression equation carried out on the variables of this research, the regression equation is as follows:

$Y = 7.2608931887 - 0.153977977865*X1 - 0.0804638313124*X2 - 0.214512461356*X3 + 2.11287419408*X4 + 0.188739398332*X5 + 0.003858902\ 87341*X6 + [CX=F]$

Results of Data Testing Analysis

Results of testing the first hypothesis (H1). The CAR variable (X1) obtained a calculated t value of $0.598328 < t$ table 2.034515 and the significance value or p value of CAR (X1) was $0.5557 > 0.05$. Thus, it can be concluded that H1 is rejected or H0 is accepted. This means that there is no influence of CAR (X1) on the ROIC of conventional commercial banks.

Results of testing the second hypothesis (H2). The LDR variable (X2) obtained a calculated t value of $1.310563 < t$ table 2.034515 and the significance value or p value of LDR (X2) was $0.2035 > 0.05$. Thus, it can be concluded that H2 is rejected or H0 is accepted. This means that there is no influence of LDR (X2) on ROIC of conventional commercial banks.

Results of testing the third hypothesis (H3). The NPL variable (X3) obtained a calculated t value of $0.393639 < t$ table 2.034515 and the significance value or p value of NPL (X3) was $0.6976 > 0.05$. Thus, it can be concluded that H3 is rejected or H0 is accepted. This means that there is no influence of NPL (X3) on the ROIC of conventional commercial banks.

Results of testing the fourth hypothesis (H4). The NIM (X4) variable obtained a regression coefficient value of 2.112874, the calculated t value was $2.973486 > t$ table 2.034515 and the significance value or p value of NIM (X4) was $0.0070 < 0.05$. Thus, it can be concluded that H4 is accepted or H0 is rejected. This means that NIM (X4) has a significant and positive effect on ROIC of conventional commercial banks.

Results of testing the fifth hypothesis (H5). For the variable CR (X5), the regression coefficient value was 0.001887, the calculated t value was $4.640386 > t$ table 2.034515 and the significance value or p value of CR (X5) was $0.0001 < 0.05$. Thus, it can be concluded that H5 is accepted or H0 is rejected. This means that CR (X5) has a significant and positive effect on the ROIC of conventional commercial banks.

Results of testing the sixth hypothesis (H6). The variable VAIC (X6) obtained a calculated t value of $0.948279 < t$ table 2.034515 and the significance value or p value of VAIC (X6) was $0.3533 > 0.05$. Thus, it can be concluded that H6 is rejected or H0 is accepted. This means that there is no influence of VAIC (X6) on ROIC of conventional commercial banks.

Result of Simultaneous Test (F Test). The F statistic value of 65.88711 is greater than the F table value of 2.445259 and the significance value of 0.000000 is smaller than 0.05, then H0 is rejected and Ha is accepted, meaning the variables CAR(X1), LDR(X2), NPL(X3), NIM(X4), CR(X5), and VAIC(X6) simultaneously influence the ROIC of conventional commercial banks listed on the IDX.

Coefficient of Determination Test (R^2). adjusted R square value is 95.82% or 0.958161. This shows that variations in the variables CAR, LDR, NPL, NIM, CR, and VAIC can explain 95.82% of variations in the ROIC variable. Meanwhile, the remaining 4.18% is explained by other factors not examined in this research, for example operational costs to operating income (BOPO), exchange rates, interest rates and so on.

Influence of Capital Adequacy Ratio (CAR) on ROIC

Based on the test results, the first hypothesis (H1) is rejected, because the results of this research show that the probability value of CAR is 0.5557 and the calculated t value is 0.598328. This shows that the CAR probability value > 0.05 and t count < 2.034515 (t table). So it can be concluded that the Capital Adequacy Ratio (CAR) has no effect on the ROIC of conventional commercial banks listed on the IDX for the 2017-2021 period. This condition explains that when the CAR changes in the company, it will not affect the company's ROIC.

According to signal theory, the higher the CAR value, the better the bank's ability to bear the risk of any credit or risky productive assets, so that this will also have an impact on increasing the company's profitability or ROIC. Then an increase in ROIC will be a good signal for investors regarding the company. A good signal will also be responded well by other parties. The results of the data that have been studied show that CAR has no significant effect on ROIC.

Previous research that supports the results of this research is research conducted by (Saputri and Hasanuh, 2022), (Pratama, 2021) and (Amaliya, 2019) which states that the Capital Adequacy Ratio (CAR) variable has a negative influence on profitability. Previous research that does not support the results of this research is research conducted by (Rahman, 2016), (Pratiwi, 2018), (Suci and Lestari, 2019) which states that the Capital Adequacy Ratio (CAR) variable has a positive and significant influence on profitability (ROIC).

Effect of Loan to Deposit Ratio (LDR) on ROIC

Based on the test results, the second hypothesis (H2) is rejected, because the results of this research show that the probability value of the Loan to Deposit Ratio (LDR) is 0.2035 and the calculated t value is 1.310563. This shows that the probability value of the Loan to Deposit Ratio (LDR) > 0.05 and t count < 2.034515 (t table). So it can be concluded that LDR has no effect on the ROIC of conventional commercial banks listed on the IDX for the 2017-2021 period. This condition explains that when the LDR changes in the company it will not affect the company's ROIC.

According to signal theory, banks are still considered inefficient in distributing credit if they distribute credit below the lower limit of 78% set by Bank Indonesia for the LDR ratio. However, banks are considered too aggressive if the amount of credit disbursement exceeds the maximum 100% because it will increase the risk exposure they face. As a result, the bank's LDR value must be maintained within a predetermined optimal range. So if the bank's LDR value is within the optimal range determined by Bank Indonesia, this will have an impact on increasing the company's profitability or ROIC. Then an increase in ROIC will be a good signal for investors regarding the company. A good signal will also be responded to well by other parties. The results of the data that have been studied show that LDR does not have a significant effect on ROIC.

Previous research that supports the results of this research is research conducted by (Rahman, 2016), (Saputri and Hasanuh, 2022), (Pratama, 2021), (Puspitasari, Aprilia, Mentarie, and Bilkis, 2021), (Aini and Kristanti, 2020), and (Amaliya, 2019) states that the Loan To Deposit Ratio (LDR) variable has a negative influence on profitability.

Previous research that does not support the results of this research is research conducted by (Pratiwi, 2018), (Nangur and Pamungkas, 2022), (Suci and Lestari, 2019)

stating that the Loan To Deposit Ratio (LDR) variable has a positive and significant influence. on profitability (ROIC).

Effect of Non-Performing Loans (NPL) on ROIC

Based on the test results, the third hypothesis (H3) is rejected, because the results of this research show that the probability value of Non-Performing Loans (NPL) is 0.6976 and the calculated t value is 0.393639. This shows that the probability value of Non Performing Loans (NPL) > 0.05 and t count < 2.034515 (t table). So it can be concluded that NPL has no effect on the ROIC of conventional commercial banks listed on the IDX for the 2017-2021 period. This condition explains that when the NPL changes in the company it will not affect the company's ROIC.

According to signal theory, the greater the Non-Performing Loan (NPL) value, the riskier the bank is because the interest income the bank will receive will decrease, of course this will have an impact on reducing the company's profitability or ROIC. A good NPL value is less than 5%, so if the bank can maintain the company's NPL value it will be able to increase the company's ROIC. Then an increase in ROIC will be a good signal for investors regarding the company. A good signal will also be responded to well by other parties. The results of the data that have been studied show that NPL does not have a significant effect on ROIC.

Previous research that supports the results of this research is research conducted by (Pratiwi, 2018), (Pratama, 2021), (Suci and Lestari, 2019) and (Amaliya, 2019) stating that the Non-Performing Loan (NPL) variable has a negative influence on profitability. As for previous research that does not support the results of this research, namely research conducted by (Saputri and Hasanuh, 2022), the results of this research show that NPL has a positive and significant effect on profitability.

Effect of Net Interest Margin (NIM) on ROIC

Based on the test results, the fourth hypothesis (H4) is declared accepted, because the results of this research show that the regression coefficient value is 2.112874, the profitability value of Net Interest Margin (NIM) is 0.0070 and the calculated t value is 2.973486. This shows that the significance value of Net Interest Margin (NIM) < 0.05 and t count > 2.034515 (t table). So it can be concluded that NIM has a significant and positive effect on the ROIC of conventional commercial banks listed on the IDX for the 2017-2021 period. This condition explains that when the NIM changes in the company it will affect the company's ROIC.

According to signal theory, the greater the Net Interest Margin (NIM) value, the better the bank's income because it increases interest income on productive assets under bank management. If the bank's income is good, of course this will have an impact on increasing the company's profitability or ROIC. Then an increase in ROIC will be a good signal for investors regarding the company. A good signal will also be responded to well by other parties. The results of the researched data show that NIM has a significant and positive effect on ROIC. Previous research that supports the results of this research is research conducted by (Pratiwi, 2018), (Suci and Lestari, 2019) and (Amaliya, 2019) which states that the Net Interest Margin (NIM) variable has a positive and significant influence on profitability. Previous research that does not support the results of this research is research conducted by (Aini and Kristanti, 2020) stating that the Net Interest Margin (NIM) variable has a negative influence on profitability.

Effect of Cash Ratio (CR) on ROIC

Based on the test results, the fifth hypothesis (H6) is declared accepted, because the results of this research show that the regression coefficient value is 0.001887, the probability value of Cash Ratio (CR) is 0.0001 and the calculated t value is 4.640386. This shows that the probability value of Cash Ratio (CR) < 0.05 and t count > 2.034515 (t table). So it can be concluded that the Cash Ratio has a significant and positive effect on the ROIC of conventional commercial banks listed on the IDX for the 2017-2021 period. This condition explains that when CR changes in the company, it will affect the company's ROIC. According to signal theory, the greater the Cash Ratio value, the better the bank's liquidity. because if the bank's Cash Ratio is high, the company's ability to pay

its current obligations with the amount of cash and cash equivalents it has will also be better. The corporation's ability to fulfill its short-term obligations is shown by a larger Cash Ratio, of course if the Cash Ratio value is high this will have an impact on increasing the company's profitability or ROIC. Then an increase in ROIC will be a good signal for investors regarding the company. A good signal will also be responded to well by other parties. The results of the researched data show that the Cash Ratio has a significant and positive effect on ROIC.

Previous research that supports the results of this research is research conducted by (Rahman, 2016) stating that the Cash Ratio (CR) variable has a positive and significant influence on profitability. Previous research that does not support the results of this research is research conducted by (Nangur and Pamungkas, 2022) stating that the Cash Ratio (CR) variable has a negative influence on profitability.

Influence of Intellectual Capital (IC) on ROIC

Based on the test results, the sixth hypothesis (H6) is rejected, because the results of this research show that the probability value of Intellectual Capital (IC) is 0.3533 and the calculated t value is 0.948279. This shows that the probability value of Intellectual Capital (IC) > 0.05 and t count < 2.034515 (t table). So it can be concluded that IC has no effect on the ROIC of conventional commercial banks listed on the IDX for the 2017-2021 period. This condition explains that when the IC changes in the company, it will not affect the company's ROIC.

According to signal theory, the greater the value of intellectual capital as proxied by VAIC, the better the bank, because this shows that the effectiveness of the intellectual capital owned by the bank is good and can add business value, and the bank has good company intellectual capital performance, of course. This will have an impact on increasing the company's profitability or ROIC. Then an increase in ROIC will be a good signal for investors regarding the company. A good signal will also be responded to well by other parties. The results of the data that have been studied show that IC does not have a significant effect on ROIC.

Previous research that supports the results of this research is research conducted by (Hatta and Fitri, 2020) stating that the Intellectual Capital (IC) variable has a negative influence on profitability (ROIC). Previous research that does not support the results of this research is research conducted by (Aini and Kristanti, 2020) stating that the Intellectual Capital (IC) variable has a positive and significant influence on profitability.

Simultaneous influence of CAR, LDR, NPL, NIM, CR and IC on ROIC

Based on the test results, the seventh hypothesis (H7) is declared accepted, because the results of this research show that the six variables, namely CAR, LDR, NPL, NIM, CR, and IC simultaneously influence the Return On Invested Capital (ROIC) variable. This is because the results of eviews 10 calculations state that the F-calculated value of 65.88711 is greater than the F-table value of 2.445259, which means that the independent variable can be said to have a simultaneous effect on the dependent variable.

Meanwhile, based on the value of R^2 as the coefficient of determination, it shows 0.9582 or 95.82%, which means that the independent variables namely CAR, LDR, NPL, NIM, CR, and IC influence the dependent variable, namely ROIC, of 95.82%, while the remaining 4.18% is explained by other factors not included in this study.

So it can be concluded that there is a significant influence between the variables CAR, LDR, NPL, NIM, CR, and IC on ROIC, with a significance level of 0.000000 indicating that the independent variable has a significant influence on the dependent variable simultaneously, it is proven, because the significance level is > 0, 05.

This research is in line with the research results of Ponttie (2007) in his research results explaining that from testing the F statistic using 5%, the F statistic was obtained at 158.074 with a P value of 0.0000. This means that the P value is less than 0.05, which shows that the results of this test, H_0, are rejected and H_1 is accepted. So it can be concluded that all independent variables, namely CAR, LDR, NPL, NIM, and BOPO simultaneously influence profitability.

CONCLUSIONS

The Capital Adequacy Ratio (CAR) has no effect on the Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the results of the partial test (t test), the calculated t value is 0.598328, which is smaller than the t table value, namely 2.034515 and a significance value of 0.5557 is greater than 0.05, then Ha is rejected and H0 is accepted.

Loan to Deposit Ratio (LDR) has no effect on Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the results of the partial test (t test) the calculated t value is 1.310563 which is smaller than the t table value, namely 2.034515 and the significance value of 0.2035 is greater than 0.05, then Ha is rejected and H0 is accepted.

Non Performing Loans (NPL) have no effect on the Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the results of the partial test (t test) the calculated t value is 0.393639, which is smaller than the t table value, namely 2.034515 and The significance value of 0.6976 is greater than 0.05, so Ha is rejected and H0 is accepted.

Net Interest Margin (NIM) has a significant and positive effect on Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the results of the partial test (t test) the regression coefficient value is 2.112874, the calculated t value is 2.973486 which is greater than The t table value is 2.034515 and the significance value is 0.0070 which is smaller than 0.05, so H0 is rejected and Ha is accepted.

Cash Ratio (CR) has a significant and positive effect on Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the results of the partial test (t test) the regression coefficient value is 0.001887, the calculated t value is 4.640386 which is greater than the value t table is 2.034515 and the significance value of 0.0001 is smaller than 0.05, then H0 is rejected and Ha is accepted.

Intellectual Capital (IC) has no effect on the Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the results of the partial test (t test) the calculated t value is 0.948279, which is smaller than the t table value, namely 2.034515 and the value The significance of 0.3533 is greater than 0.05, then Ha is rejected and H0 is accepted.

Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), Net Interest Margin (NIM), Cash Ratio (CR), and Intellectual Capital (IC) simultaneously or together can be has an effect on the Return On Invested Capital (ROIC) of Conventional Commercial Bank Companies, because based on the simultaneous results (F test) the calculated F value is 65.88711 which is greater than the F table value which is 2.445259 and the significance value which is 0.000000 is smaller than 0.05, then H0 is rejected and Ha is accepted.

Researcher suggestions that can be considered in the future are 1.) For banks in Indonesia, especially BUKU 4 banks, they should continue to manage their financial risks so that financial ratios can be well maintained, customer trust in the bank is maintained and thus bank profitability will continue to increase. As with credit distribution, credit must be maintained so that bad credit does not occur which will cause reduced profits. 2.) For future researchers, they can research with more varied variables and other research subjects and adjust the research year so that the research becomes more accurate. 3.) For investors, it is hoped that this research can help provide references to investors in making decisions about choosing banking companies that are worthy of investment.

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