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THE INFLUENCE OF CAPITAL ADEQUACY RATIO AND FINANCING TO DEPOSIT RATIO ON RETURNS ON ASSETS IN ISLAMIC COMMERCIAL BANKS IN INDONESIA

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Abstract

This study analyzes the financial performance of Indonesian Islamic Commercial Banks by examining the Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), and Return on Assets (ROA) on quarterly data for 2021–2022. This study investigates deviations from theoretical expectations regarding the relationship between CAR and FDR with ROA. Based on previous studies that reported inconsistent effects of these variables on profitability, this study explores the impact of CAR and FDR on ROA both individually and in combination. This study focuses on identifying the specific contribution of independent variables to ROA, both partially and simultaneously in the Islamic banking sector during the period. This study took a sample of nine banks registered on the official website of the Financial Services Authority (OJK), using a purposive sampling technique based on quarterly data resulting in 65 samples for observation. Multiple linear regression analysis through SPSS 25 shows that CAR has a positive and significant impact on ROA ($t = 4.825 > 1.999$, $p = 0.000$), as well as FDR ($t = 2.119 > 1.999$, $p = 0.038$). Together, CAR and FDR significantly affect ROA ($F = 18.490 > 3.148$, $p = 0.000$). Thus, this finding finds that there is a significant influence of CAR and FDR on ROA, both individually and together, so that it becomes important information in the framework of the financial performance of Islamic Commercial Banks in Indonesia.

Keywords: *CAR, FDR, ROA, Islamic Commercial Bank*

Abstrak

Studi ini menganalisis kinerja keuangan Bank Umum Syariah Indonesia dengan memeriksa Rasio Kecukupan Modal (CAR), Rasio Pembiayaan terhadap Simpanan (FDR), dan Pengembalian Aset (ROA) pada data triwulanan tahun 2021–2022. Studi ini menyelidiki penyimpangan dari ekspektasi teoritis mengenai hubungan antara CAR dan FDR dengan ROA. Berdasarkan penelitian sebelumnya yang melaporkan efek yang tidak konsisten dari variabel-variabel ini pada profitabilitas, studi ini mengeksplorasi dampak CAR dan FDR terhadap ROA baik secara individual maupun gabungan. Penelitian ini berfokus pada identifikasi kontribusi spesifik variabel bebas terhadap ROA, baik secara parsial dan simultan pada sektor perbankan syariah pada periode waktu tersebut. Studi ini mengambil sampel sembilan bank yang terdaftar di situs resmi Otoritas Jasa Keuangan (OJK), dengan menggunakan teknik pengambilan

sampel purposive berdasarkan data triwulanan menghasilkan 65 sampel untuk diobservasi. Analisis regresi linier berganda melalui SPSS 25 menunjukkan bahwa CAR berdampak positif dan signifikan terhadap ROA (t = 4,825 > 1,999, p = 0,000), demikian pula FDR (t = 2,119 > 1,999, p = 0,038). Secara bersama-sama, CAR dan FDR memengaruhi ROA secara signifikan (F = 18,490 > 3,148, p = 0,000). Dengan demikian, temuan ini menemukan bahwa terdapat pengaruh signifikan CAR dan FDR terhadap ROA, baik secara individu maupun bersama-sama, sehingga menjadi informasi yang penting dalam kerangka kinerja keuangan Bank Umum Syariah di Indonesia.

Kata Kunci: CAR, FDR, ROA, Bank Umum Syariah.

INTRODUCTION

The expansion of Islamic Commercial Banks is strongly influenced by the Muslim population in a given region. In Indonesia, home to a large Muslim population, Islamic banking has significant growth potential. According to the 2022 Indonesian Sharia Financial Development Report (LPKSI), Sharia banking held a market share of 66.30%. Additionally, the total assets of Islamic Commercial Banks rose from IDR 441.79 trillion in 2021 to IDR 531.86 trillion in 2022, highlighting the sector's rapid expansion. Sharia Commercial Banks that experience asset growth are certainly based on the profitability ratio that functions to measure the company's performance.

In facing business risks in the banking world, the financial health condition in banks in general is very crucial, both in conventional banks and Islamic banks. Banking will prioritize the health of financial performance as the point where banking management will make decisions both in business development plans and in maintaining the survival of the banking business.

In general, the health of banking financial performance is a benchmark for increasing public trust, especially for customers and debtors. Banks with strong performance tend to enhance customer trust, leading to continued use of the products and services offered by Islamic Banks. High profitability is a key indicator of good banking performance. Assessments of bank performance are conducted to evaluate the institution's ability to manage its finances, particularly in terms of capital adequacy, liquidity, and profitability. Additionally, this analysis seeks to determine how effectively the bank can utilize its assets to generate profits. To assess a bank's financial performance, it is crucial to analyze financial statements and apply relevant

financial ratios. These ratios help assess the reliability of financial statements and gauge the bank's potential performance. For Islamic Banks, the ROA (Return on Assets) and ROE (Return on Equity) ratios are key indicators of potential profitability. ROE reflects the percentage of profit after tax in relation to core capital, while ROA indicates the bank's overall profitability potential.

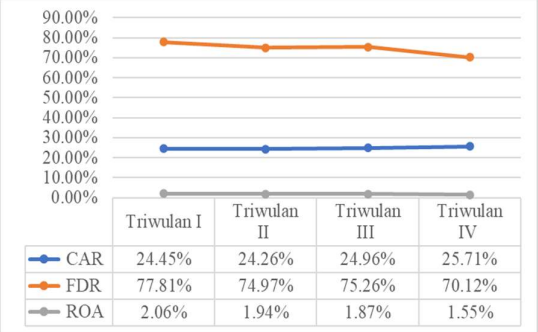
Capital is crucial for a bank's profitability. Market participants rely on capital as a key metric to evaluate a bank's capacity to generate profits. Higher profitability strengthens public confidence in banks, motivating them to enhance their performance in this area. The Capital Adequacy Ratio (CAR) is a key indicator of capital, evaluating whether a financial institution's capital is adequate to sustain its operations. CAR reflects the amount of capital a bank maintains to protect itself against potential operational risks. Banks must maintain a CAR that meets the minimum standard established by the Bank for International Settlements (BIS), which requires at least 8% of Risk-Weighted Assets (RWA).

The Financing to Deposit Ratio (FDR) measures the percentage of funds allocated to financing in relation to the total Third Party Funds (DPK) collected from customers. An excessively high FDR suggests a lower level of liquidity. The FDR range that is considered healthy is between 85% and 100%. A balanced FDR helps maintain a balance between managed funds and income from operational activities. The main objective of this financing distribution is to generate adequate income and maintain public trust by maintaining liquidity at a safe level. Undisbursed financing can harm the bank and damage its image, which ultimately reduces public trust.

Based on Sharia Banking Statistics data from 2021 to 2022, the growth of financial performance ratios such as CAR, FDR, and ROA From the first to the fourth quarter, there is an inverse relationship between CAR and FDR with respect to ROA. Table 1.1 below presents the trends in CAR, FDR, and ROA ratios for Islamic Commercial Banks throughout 2021.

Figure 1.1

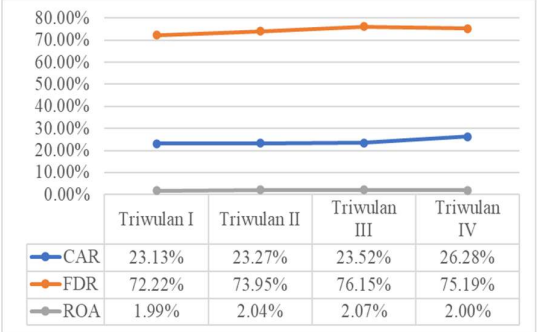
CAR, FDR and ROA ratios in 2021



	Triwulan I	Triwulan II	Triwulan III	Triwulan IV
CAR	24.45%	24.26%	24.96%	25.71%
FDR	77.81%	74.97%	75.26%	70.12%
ROA	2.06%	1.94%	1.87%	1.55%

Figure 1.2

CAR, FDR and ROA ratios in 2022



	Triwulan I	Triwulan II	Triwulan III	Triwulan IV
CAR	23.13%	23.27%	23.52%	26.28%
FDR	72.22%	73.95%	76.15%	75.19%
ROA	1.99%	2.04%	2.07%	2.00%

Figure 1.1 indicates differences and deviations from the theory regarding the relationship between CAR, FDR, and ROA in 2021. In the second quarter, the CAR ratio fell by 0.19%, while the FDR ratio fell by 2.84%, with a more significant decline in the fourth quarter reaching 5.14%. Meanwhile, the ROA ratio experienced a gradual decline from the second quarter to the fourth quarter, namely 0.12% in the second quarter, down again by 0.07% in the third quarter, and again down by 0.32% in the fourth quarter.

According to the 2022 Islamic Banking Statistics data, there appears to be a negative correlation between The Capital Adequacy Ratio (CAR) and the Financing-to-Deposit Ratio (FDR) in relation to the profitability ratio (ROA) regarding financial performance trends in Islamic Commercial Banks. These findings indicate that changes in CAR and FDR generally have a modest positive impact on the Return on Assets (ROA) throughout the year. The table below presents detailed changes in the CAR, FDR, and ROA ratios observed in Islamic Commercial Banks throughout 2022, offering additional insight into growth trends and financial performance patterns within the Islamic banking sector for that period.

Figure 1.2 shows variations that are inconsistent with the theory Concerning the relationship between the Capital Adequacy Ratio (CAR), the Financing to Third-Party Funds Ratio (FDR), and the Return on Assets Ratio (ROA) in 2022. The CAR ratio shows a gradual increasing trend from quarter to quarter, starting with an increase of 0.14% in the second quarter, followed by an increase of 0.25% in the third quarter, and finally experiencing a significant increase of 2.76% in the fourth quarter. The FDR ratio also

showed growth, increasing by 1.73% in the second quarter and jumping by 2.20% in the third quarter, but in the fourth quarter it fell again by 0.96%. While the ROA ratio showed a slight increase of 0.05% in the second quarter, followed by a marginal increase of 0.03% in the third quarter, but then decreased by 0.07% in the fourth quarter. These results indicate a dynamic that is not entirely in line with the theory that links CAR, FDR, and ROA.

Figures 1.1 and 1.2 show that during the 2021-2022 period, the financial performance ratios of CAR, FDR, and ROA at Islamic Commercial Banks from the first quarter to the fourth quarter experienced significant differences from theoretical predictions regarding the relationship between CAR and FDR to ROA. The development of these ratios does not fully reflect the expected pattern, so it indicates that there are other factors that influence the actual results in the field theory. This phenomenon illustrates that the conditions and real market dynamics can cause variations that are not always in line with existing theories, so that in some cases, empirical data shows different results from what has been formulated in theoretical studies.

Rizkina, in her study titled The Effect of CAR and FDR on ROA in Islamic Commercial Banks for the Period 2013–2019, adopts a quantitative research approach utilizing multiple linear regression analysis and secondary data obtained from the official Financial Services Authority (OJK) website. Her analysis concludes that both the Capital Adequacy Ratio (CAR) and Financing to Deposit Ratio (FDR) positively impact the Return on Assets (ROA) of Islamic Commercial Banks during the specified period. Conversely, Fathurrahaman conducts a similar study titled The Effect of Capital Adequacy Ratio (CAR) and Financing to Deposit Ratio (FDR) on Return on Assets (ROA) at PT. Bank Permata Syariah for the Period 2011–2021. Like Rizkina, he employs a quantitative methodology and multiple linear regression analysis. However, his study utilizes secondary data sourced from the official website of PT. Bank Permata Syariah. In contrast to Rizkina's findings, Fathurrahaman's results suggest that CAR and FDR do not have a significant influence on ROA for the analyzed period. These differing outcomes highlight the variability of CAR and FDR's effects on ROA, potentially due to

differences in the study periods, data sources, or organizational contexts, underscoring the need for further research to reconcile these inconsistencies.

The research conducted by Fajriah and Jumady, entitled Profit Sharing Financing and the Financing to Deposit Ratio (FDR) on the Profitability of Indonesian Islamic Commercial Banks, applies a quantitative approach with multiple linear regression analysis and utilizes secondary data from Islamic Commercial Banks, sourced from the official OJK website for the 2015-2019 period. In this research, profitability is assessed through ROA, revealing that profit-sharing financing does not significantly impact ROA, whereas FDR has a significant effect. In contrast, the study by Winawati and Anam, Entitled The Effect of FDR and NPF on Return on Asset (ROA) at Bank Syariah Mandiri from 2009 to 2019, this study also employs a quantitative approach using multiple linear regression analysis. relying on secondary data from the Bank Syariah Mandiri website. The results show that FDR does not have a significant effect on ROA, whereas NPF has a significant negative impact on the bank's profitability.

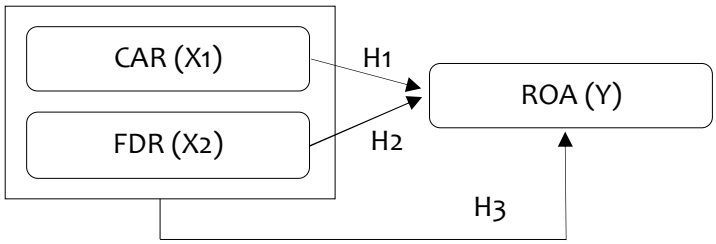
Maharani, in her study CAR and Financing to Deposit Ratio on ROA of PT. Bank Syariah Mandiri, employs a quantitative approach, using multiple linear regression analysis with secondary data sourced from the official Bank Syariah Mandiri website. Her findings reveal that the Capital Adequacy Ratio (CAR) does not significantly influence the Return on Assets (ROA), whereas the Financing to Deposit Ratio (FDR) shows a significant positive effect. Similarly, Yuliana and Listari, in their research titled The Effect of CAR, FDR, and BOPO on ROA in Islamic Banks in Indonesia, adopt quantitative methods and multiple linear regression analysis. They utilize secondary data from the Financial Services Authority (OJK) website, focusing on Islamic Banks operating in Indonesia during 2021. Their results indicate that CAR and FDR both have a positive impact on ROA, while the Operational Efficiency Ratio (BOPO) negatively affects ROA. These studies collectively highlight the varying roles of financial ratios in influencing the profitability of Islamic banks.

Previous research found a research gap (Research GAP) between independent variables that influence ROA. Researchers Rizkina (2021), and Yuliana and Listari (2021) conducted research that showed CAR had a positive influence, while Maharani (2020)

and Fathurrahman (2022) showed that CAR had no influence. In addition, Fajriah and Jumady (2021), Maharani (2020), Rizkina (2021), and Yuliana and Listari (2021) showed that FDR had a positive effect, while Winawati and Anam (2022) and Fathurrahman (2022) showed that FDR had no effect. Because previous research had a research gap, further research is needed that focuses on the effect of CAR and FDR on ROA.

The empirical phenomenon of events is not always in line with the theory in Figures 1.1 and 1.2, which is reinforced by previous research that resulted in a Research Gap. Previous studies have shown unequal influences from variables that affect ROA. These results led researchers to conduct a research test entitled "The Effect of CAR and FDR on the Profitability of Islamic Commercial Banks in 2021-2022"

Figure 1.3
Framework



LITERATUR REVIEW

Signal Theory

Spence describes the information owner as the sender, who delivers signals in the form of information that reflects the company's condition, providing value to investors or other recipients of the signals. (Spence, 1973 in Purba 2023:34). The information conveyed is considered a good signal if the reported profit increases and indicates good company health. Conversely, a bad signal occurs when the reported profit decreases or indicates problems in the business.

The expected information is a good signal. A company that has quality will always give a signal to external parties so that the company's prospects can be known to external parties. The OJK website can used as a source of information to capture important signals in the financial industry which provide a clear picture of conditions company. A positive signal suggests that the bank is performing effectively. This signal can take the form of information or marketing efforts that highlight the company's

strengths compared to its competitors. If you want to give a positive signal through good financial reports to external parties, then you can do it by providing information related to financial ratios.

According to Hasibuan (2024), if the CAR ratio value is high, the higher the capital adequacy owned to finance operations and the higher the profit obtained. A higher FDR ratio suggests the potential for increased company profits, provided the bank successfully meets the requirement of channeling its financing efficiently. From this explanation, a good signal is if the reported profit or ROA increases, if the bank is able to optimize existing capital, and if the bank is able to channel financing. This shows financial performance good from the company, so as to attract investors' interest in investing

Return On Asset (ROA)

ROA measures a bank's ability to utilize assets to generate overall profits. ROA compares pre-tax profits to average total assets. According to Amelia (2021), if a company obtains a high ROA ratio, it means that the utilization of assets will be more effective, thereby increasing profits.

As outlined in Bank Indonesia Circular Letter No. 9/24/Dpbs regarding the Sharia-Based General Bank Health Assessment System, Bank Indonesia has criteria for assessing the health of ROA for Sharia General Banks, including:

ROA Health Criteria

Rating	Description	Criteria
1	Very Good	ROA > 1,5%
2	Good	1,25% < ROA ≤ 1,5%
3	Good Enough	0,5% < ROA ≤ 1,25%
4	Poor	0% < ROA ≤ 0,5%
5	Not Good	ROA ≤ 0%

Capital Adequacy Ratio (CAR)

CAR describes the adequacy of bank capital which reflects the ability to overcome the risk of loss from the activities it carries out and in financing its operational activities. CAR compares capital with Risk-Weighted Assets (RWA). Capital is the main factor when developing a business and bearing losses from risk. According to Amelia (2019), if the CAR ratio value is high, the higher the capital adequacy owned

to finance operations and the higher the profit obtained. Islamic banking is required to achieve the CAR or KPMM ratio to maintain the level of banking health. Banks that carry out operations are required to maintain a CAR ratio based on BIS (Bank for International Settlements) of at least 8% of RWA.

As outlined in Bank Indonesia Circular Letter No. 9/24/Dpbs regarding the Sharia-Based General Bank Health Assessment System, Bank Indonesia has CAR health assessment criteria for Sharia General Banks, including:

CAR Health Criteria

Rating	Description	Criteria
1	Very Good	CAR ≥ 12%
2	Good	9% ≤ CAR < 12%
3	Good Enough	8% ≤ CAR < 9%
4	Poor	6% ≤ CAR < 8%
5	Not Good	CAR ≤ 6%

Financing to Deposit Ratio (FDR)

FDR is defined as a ratio to assess how much financing disbursement funds are compared to the amount of third party funds (TPF) received from customers. Liquidity is defined as the fulfillment of short-term obligations. Its good management increases public trust, because the company can channel financing optimally.

As an intermediary institution, banking companies are tasked with providing financing for customers who need additional funds in order to expand their business. Banks allocate financing after collecting Third Party Funds (TPF). According to Hakim (2021), the aim of distributing this financing is to achieve adequate profitability and maintain public trust by maintaining a safe level of liquidity.

According to Bank Indonesia Circular Letter No. 6/23/DPNP regarding regulations set by BI relating to FDR criteria, namely:

FDR Health Criteria

Rating	Description	Criteria
1	Very Healthy	FDR < 75%
2	Healthy	75% < FDR ≤ 85%
3	Healthy Enough	85% < FDR ≤ 100%
4	Less Healthy	100% < FDR ≤ 120%
5	Unhealthy	FDR > 100%

RESEARCH METHODS

Population includes all units of analysis that are used as research targets. Population refers to all elements that have the criteria that the researcher wants to study. Data analysis is then carried out based on information from the population to produce conclusions that form the basis of the research. The population for this study consists of 9 Islamic Commercial Banks across Indonesia, covering the period from 2021 to 2022, all of which are officially listed on the OJK website.

Using secondary data related to the publication of quarterly financial ratio reports on the official OJK website regarding BUS throughout Indonesia, The data was subsequently processed and analyzed statistically using SPSS 25 to evaluate the hypotheses proposed by the researcher. This research was carried out by utilizing secondary data obtained from external sources or media records. Information data was collected by intermediaries. using documentation techniques that are not directly present in the research. The author subjects of the study, but using documents. collected data from intermediary media that the author saw on the official OJK website in the form of CAR ratios (X1) , FDR ratios (X2) , and ROA ratios (Y) at 9 Islamic Commercial Banks in Indonesia in 2021-2022

A literature study is a research method that entails reviewing and analyzing written materials, including books, academic journals, and documents, that are relevant to the subject or issue under investigation.

RESULTS AND DISCUSSION

In this study, secondary data obtained from data sources amounting to 65 sample data. This study uses SPSS 25 software to support data management using multiple linear regression techniques.

a. Descriptive Analysis

Descriptive Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
LAG_CAR	64	-13.45	32.19	12.5986	7.25404
LAG_FDR	64	-9.30	58.61	32.3997	11.67637
LAG_ROA	64	-3.69	10.93	1.0973	2.17816
Valid N (listwise)	64				

Based on the test results, the CAR value (X1) has a minimum value of -13.45 at PT Bank Aceh Syariah for March 2022 and 32.19 is the maximum value at PT Bank BTPN Syariah in the March 2022 period. The average CAR value is 12.5986, which means that the CAR of Islamic General Banks in 2021-2022 is in a "very good" condition when referring to the Bank Indonesia predicate. The standard deviation of the CAR is 7.25404, indicating a value lower than the average. This suggests that the CAR variable in this study exhibits minimal variation.

The test results for the FDR variable (X2) revealed a minimum value of -9.30 at PT Bank Muamalat Indonesia in March 2022 and a maximum value of 58.61 at PT Bank BJBS in March 2021. The average FDR value is 32.3997, which means that the FDR value of Islamic General Banks from 2021 to 2022 can be categorized as "very healthy" according to Bank Indonesia's predicate. The standard deviation value is smaller than the average, namely 11.67637, this shows that the FDR variable used does not vary.

For the Y variable, ROA, the test results showed a minimum value of -3.69 at PT Bank Aceh Syariah in March 2022, while the maximum value of 10.93 was recorded at PT Bank BTPN Syariah in June 2021. The average ROA value of 1.0973, shows that in 2021 to 2022, Based on Bank Indonesia's classification, the ROA of Islamic General Banks is considered "quite good." The ROA's standard deviation, calculated at 2.17816, exceeds the average value, indicating significant variability in the ROA variable used in the study.

b. Normality Test

The data normality in this study was assessed using the Kolmogorov-Smirnov test. The decision rule states that if the significance value exceeds 0.05, the residual data can be considered normally distributed.

The Kolmogorov-Smirnov test has 3 approaches, namely Asymptotic, Monte Carlo, and finally Exact. If Kolmogorov-Smirnov does not meet normality, you can use a Monte Carlo or Exact approach. According to R. Mehta and Patel (2015), the Exact sample size does not exceed 30. Exact is used if the sample is very small. Meanwhile, Monte Carlo is for large samples. A sample of more than 30 is large. The test used is Kolmogorov-Smirnov with a Monte Carlo approach to residual equations with the test

criterion α=0.05. As stated by Ghozali (2018), the residual data is considered normally distributed if the Monte Carlo significance value exceeds α. The results of the normality test conducted using the Monte Carlo approach, after outliers were removed and autocorrelation was addressed with the Cochrane-Orcutt method, are as follows:

Kolmogorov-Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test			
			Unstandardized Residual
N			64
Normal Parameters[a,b]	*Mean*		.0000000
	Std. Deviation		1.71865105
Most Extreme Differences	*Absolute*		.166
	Positive		.166
	Negative		-.131
Test Statistic			.166
Asymp. Sig. (2-tailed)			.000[c]
Monte Carlo Sig. (2-tailed)	*Sig.*		.051[d]
	99% Confidence Interval	*Lower Bound*	.045
		Upper Bound	.056
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			
d. Based on 10000 sampled tables with starting seed 2000000.			

According the Table, the Monte Carlo Sig. (2-tailed) value is 0.051. Since this value (0.051) is greater than 0.05, it indicates that the data follows a normal distribution.

c. Multicollinearity Test

Multicollinearity Test Results

Coefficients[a]			
Model		*Collinearity Statistics*	
		Tolerance	*VIF*
1	LAG_CAR	.914	1.095
	LAG_FDR	.914	1.095
a. Dependent Variable: LAG_ROA			

Based on the output results of table, it shows that there is no multicollinearity, because CAR and FDR produce a VIF value of 1.095 < 10 and Tolerance 0.914 > 0.10 so that the equation is suitable for use.

d. Heteroscedasticity Test

Linear regression models need to detect the presence of homoscedastic (fixed) or heteroscedastic (changing) error variances, therefore, a heteroscedasticity test is needed. The white test is one of the heteroscedasticity tests carried out by squaring the residual value and then regressing it with the independent variable, the

independent variable that is squared and the multiplication or interaction between the independent variables. For decision making, if the calculated C2 is smaller than the C2 table, it can be interpreted that there is no heteroscedasticity problem. However, conversely, if the C2 table is smaller than the calculated C2, it can be concluded that there is a heteroscedasticity problem. The following is a heteroscedasticity test using the white test:

Heteroscedasticity Test Results

Model Summary				
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.814[a]	.663	.634	4.63416
a. Predictors: (Constant), LAG_CARFDR, LAG_FDR, LAG_CAR, LAGCAR_KUADRAT, LAGFDR_KUADRAT				

Based on the output results of table, the white test shows an R Square value of 0.663, in addition it is known from the normality test that n = 64. The calculated C2 is calculated using the formula n x R Square (64 x 0.663 = 42.432). The C2 table is obtained using the formula df = n-1. Then df = 63 (64-1 = 63) with a = 0.05. From this calculation, it is concluded that the calculated C2 (42.432) < C2 table (82.529), so there is no heteroscedasticity problem.

e. Autocorrelation Test

The autocorrelation test is used to examine whether there is a correlation between the current period (t) and the preceding period (t-1). This studi uses the Durbin-Watson test to test autocorrelation which is carried out using SPSS version 25.

Autocorrelation Test Results

Model Summary[b]					
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Durbin-Watson*
1	.614[a]	.377	.357	1.74660	1.956
a. Predictors: (Constant), LAG_FDR, LAG_CAR					
b. Dependent Variable: LAG_ROA					

The Table presents the results of the Durbin-Watson test using the Cochrane Orcutt method, with a DW value of 1.956. The sample size, n = 64, is derived from the number of observations, and the value of k = 2 corresponds to the two independent variables. According to the Durbin-Watson table with a significance level of 0.05%, the values of dl and du are 1.5315 and 1.6601, respectively. Additionally, the value of 4-du (4 - 1.6601 = 2.3399) is calculated. These results show that du (1.6601) < dw (1.956) < 4-du (2.3399), indicating that there is no autocorrelation in the regression model used in

this study.

f. Multiple Regression Analysis

The influence test used is multiple regression analysis. This is used to test the influence and direction of the influence of the independent variable on the dependent variable. The test results using the SPSS 25 application are as follows:

Multiple Regression Analysis Test Results

Coefficients[a]						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	t	*Sig.*
		B	*Std. Error*	*Beta*		
1	(Constant)	-2.186	.682		-3.204	.002
	LAG_CAR	.153	.032	.510	4.825	.000
	LAG_FDR	.042	.020	.224	2.119	.038
a. Dependent Variable: LAG_ROA						

In table, a multiple regression equation model is obtained, namely:

LagROA = α + β1 LagCAR + β2 LagFDR + e

LagROA = -2,186 + 0,153 Lag CAR + 0,042 Lag FDR + e

The explanation of the coefficient of each variable based on the regression equation above is as follows:

1) Constant value (a)

   The constant value of -2.186 indicates that the independent variables (CAR and FDR) if the value is zero, it means that profitability (ROA) has decreased by 2.186%.

2) β1 Lag CAR

   The coefficient value of the CAR variable obtained a value of 0.153, this can be translated that with a 1% increase in the CAR variable, the ROA variable will increase by 0.153%.

3) β2 Lag FDR

   The coefficient value of the FDR variable obtained a value of 0.042, this can be translated that with a 1% increase in the FDR variable, the ROA variable will increase by 0.042%.

g. Correlation Coefficient

The test to measure the attachment between the independent variable and the dependent variable in this study is to use the Correlation Coefficient (r) test. Using SPSS 25, the correlation coefficient test was carried out with the following results:

Correlation Coefficient Test Results

Model Summary[b]				
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.614[a]	.377	.357	1.74660
a. Predictors: (Constant), LAG_FDR, LAG_CAR				
b. Dependent Variable: LAG_ROA				

From the results of table, it is known that the correlation coefficient value (r) is 0.614, meaning that ROA at Islamic Commercial Banks in 2021-2022 which is influenced by the CAR and FDR variables has a correlation of 0.614> 0.60 which is included in the strong category.

The correlation coefficient test is also performed per variable. This is to obtain an overview of the relationship between the independent variable and the dependent variable. By using the Pearson product moment test, the test results produce the following output:

Test Results Pearson Correlation Coefficient Analysis Results

Correlations				
		LAG_CAR	LAG_FDR	LAG_ROA
LAG_CAR	*Pearson Correlation*	1	.294*	.576**
	Sig. (2-tailed)		.018	.000
	N	64	64	64
LAG_FDR	*Pearson Correlation*	.294*	1	.374**
	Sig. (2-tailed)	.018		.002
	N	64	64	64
LAG_ROA	*Pearson Correlation*	.576**	.374**	1
	Sig. (2-tailed)	.000	.002	
	N	64	64	64
*****. *Correlation is significant at the 0.05 level (2-tailed).*				
******. *Correlation is significant at the 0.01 level (2-tailed).*				

In table above, the following Pearson correlation results are obtained:

1) Pearson correlation between CAR and ROA CAR to ROA shows a Pearson correlation of 0.576 > 0.40 which is included in the medium category. Referring to the positive value of the regression coefficient which is interpreted as a unidirectional influence, then with a moderate correlation level, if the CAR variable increases, it will be followed by a moderate increase in the ROA variable.
2) Pearson FDR correlation with ROA FDR to ROA shows a Pearson correlation of 0.374 > 0.40 which is included in the low category. Referring to the positive value of the regression coefficient which is interpreted as a unidirectional influence, then with a moderate correlation level, if the FDR variable increases, it will be

followed by a low level increase in the ROA variable.

h. Coefficient of Determination

In explaining the variation in the dependent variable, it is tested using the determination coefficient test (R^2). The results of the determination coefficient test using the SPSS version 25 tool are as follows:

Results of Determination Coefficient Analysis

Model Summary[b]				
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.614[a]	.377	.357	1.74660
a. Predictors: (Constant), LAG_FDR, LAG_CAR				
b. Dependent Variable: LAG_ROA				

Based on Table above, the Adjusted R square value is 0.357, which means that in the period from 2021 to 2022, ROA at Islamic Commercial Banks in Indonesia which is influenced by the CAR and FDR variables is 35.7%. While the remaining 64.3% is influenced by other variables outside this research model, for example the BOPO ratio, NPF, and so on. This study only reveals the influence of the CAR and FDR variables on the ROA variable, due to the statistical anomaly of Islamic Banking from 2021 to 2022 on the CAR and FDR ratios when referring to the theory related to the relationship between CAR and FDR and ROA at Islamic Commercial Banks.

i. Simultaneous Test (F Test)

Simultaneous Test Results (F Test)

ANOVA[a]						
Model		*Sum of Squares*	*df*	*Mean Square*	F	*Sig.*
1	*Regression*	112.809	2	56.404	18.490	.000[b]
	Residual	186.087	61	3.051		
	Total	298.896	63			
a. Dependent Variable: LAG_ROA						
b. Predictors: (Constant), LAG_FDR, LAG_CAR						

Based on the test results above, the resulting F_{count} value is 18.490 with a significance value of 0.000. The F_{table} value is obtained from df 1 (number of variables-1) and df 2 (n-k-1), where n is the number of data and k is the number of independent variables. Then obtained df 1 (3-1) = 2 and df 2 (64-2-1) = 61. Thus, it can be concluded that the F_{count} of 18.490 is above the F_{table} value of 3.148 with a significance value of 0.000 below 0.05, so H03 is rejected. This means that ROA in 2021 to 2022 is simultaneously influenced by the CAR and FDR variables.

j. Partial Test (t-Test)

Partial test is done by t-test, namely by comparing the calculated t value with the t-table value, using a significance level of 0.05% then divided by 2 = 0.025% because it is a 2-sided test, then obtained df (64-2) = 62. From the 2 (two) side test with Sig. 0.025%, the decision making used is if $t_{count} > t_{table}$ then H0 is rejected. In addition, hypothesis testing is carried out using a tool in the form of SPSS 25, the α value used is 0.05 or a significance level of 5%, or in other words a confidence level of 95%. The conclusion criteria used are if the significance value is greater than 0.05, then H0 is rejected. The results of the t-test are as follows:

Partial Test Results (t-Test)

Coefficients[a]						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	t	*Sig.*
		B	*Std. Error*	*Beta*		
1	*(Constant)*	-2.186	.682		-3.204	.002
	LAG_CAR	.153	.032	.510	4.825	.000
	LAG_FDR	.042	.020	.224	2.119	.038
a. Dependent Variable: LAG_ROA						

In table above, it shows the significance value for each variable. So the testing of each hypothesis is as follows:

1) The value of the regression test results on the Capital Adequacy Ratio variable shows a positive value which means it is in the same direction. By testing the t-value obtained of 4.825 which is greater than the t-table value of 1.999, and a significance value of 0.000 which is less than 0.05, it can be concluded that the Capital Adequacy Ratio has a positive and significant effect on Returns On Assets partially at Islamic Commercial Banks in Indonesia in the period 2021 to 2022. The positive direction of the regression coefficient shows a positive effect of CAR on ROA, if there is an increase in the CAR value, then ROA tends to increase. And vice versa, if there is a decrease in CAR, it is followed by a decrease in ROA. Thus, H01 is rejected and Ha1 is accepted.
2) The value of the regression test results on the Financing to Deposit Ratio variable shows a positive value which means it is in the same direction. By testing the t-value obtained of 2.119 which is greater than the t-table value of 1.999, and a significance value of 0.038 which is less than 0.05, it can be concluded that the

Financing to Deposit Ratio has a positive and significant effect on Returns On Assets partially at Islamic Commercial Banks in Indonesia in the period 2021 to 2022. The positive direction of the regression coefficient shows a positive effect of FDR on ROA, if there is an increase in the FDR value, then ROA tends to increase. And vice versa, if there is a decrease in FDR, it is followed by a decrease in ROA. Thus, H_{02} is rejected and H_{a2} is accepted.

DISCUSSION

1) ***Hypothesis 1 The effect of CAR (X1) on ROA (Y) partially.***

The Capital Adequacy Ratio variable value shows a positive value, while the test results of the t-count value obtained are 4.825 which is greater than the t-table value of 1.999, and the significance value is 0.000 which is less than 0.05, so it can be concluded that the Capital Adequacy Ratio has a positive and significant effect on Returns On Assets partially at Islamic Commercial Banks in Indonesia in the period 2021 to 2022. The positive direction of the regression coefficient indicates that the effect on ROA is in the same direction, if the CAR value increases, the ROA will increase, and vice versa. This is in line with the signal theory which states that the higher the CAR, it means that the bank's capital ability is increasing in maintaining the possibility of a risk of loss that may be experienced by the bank so that the bank's performance will also increase. In other words, H_{01} is rejected and H_{a1} is accepted.

Capital Adequacy Ratio (CAR) is a key indicator of a bank's financial health, reflecting its ability to absorb potential losses and sustain operations. As banks are inherently exposed to various risks, including operational costs, a higher CAR suggests a stronger capacity to withstand these challenges. This, in turn, can positively impact the bank's profitability, as measured by the Return on Assets (ROA). Therefore, a positive correlation exists between CAR and ROA.

2) ***Hypothesis 2 The effect of FDR (X2) on ROA (Y) partially.***

The findings indicate a positive and significant relationship between the Financing to Deposit Ratio (FDR) and Return on Assets (ROA) at Islamic

Commercial Banks during 2021-2022. This means that as the FDR increases, the ROA also tends to increase. This positive correlation aligns with the signal theory, which suggests that banks with higher FDRs can achieve greater profitability. A higher FDR signifies increased lending activities, a primary revenue source for banks. However, optimal distribution of these funds is crucial to maximize the positive impact on ROA. The statistical analysis, with a t-value of 2.119 exceeding the critical value of 1.999 and a significance level of 0.038, further confirms the rejection of the null hypothesis (H02) and the acceptance of the alternative hypothesis (Ha2).

As an intermediary institution, a banking company acts as an intermediary between parties with excess funds and those with a shortage of funds, so with the FDR ratio, if all the funds that have been collected cannot be distributed to those in need, it means that the bank cannot carry out its functions properly. The purpose of this financing distribution is to achieve adequate profitability and maintain public trust by maintaining a safe level of liquidity. The positive direction of the relationship indicates that the increase in financing channeled by Islamic Banks is directly proportional to profit, which in turn can increase profitability as measured by ROA.

3) ***Hypothesis 3 The effect of CAR (X1) and FDR (X2) on ROA (Y) simultaneously.***

From the F test results, the calculated F value was obtained 18,490 > Ftable 3,148 and Sig. 0,000 < 0.05, then H03 is rejected. This means that there is an influence of CAR and FDR on ROA simultaneously in Islamic Commercial Banks in 2021-2022.

This is in line with the partial testing of CAR and FDR which have a positive and significant effect on ROA partially in Islamic Commercial Banks in 2021-2022. This can happen because the correlation coefficient value is moderate and the determination coefficient is 35.7% while the remaining 64.3% is influenced by other variables outside the research model such as BOPO, NPF, and so on.

CONCLUSION

To sum up, the finding shown that CAR (X_1) has a positive and significant effect on ROA (Y) partially in Islamic Commercial Banks in 2021-2022. The positive direction of the regression coefficient indicates that the effect on ROA is positive and directly proportional, if the CAR value increases, then ROA will increase, and vice versa. This is in line with the signal theory which states that the higher the CAR, the greater the bank's capital capacity in maintaining the possibility of the risk of loss that may be experienced by the bank so that the bank's performance will also increase.

In addition, FDR (X_2) has a positive and significant effect on ROA (Y) partially in Islamic Commercial Banks in 2021-2022. The positive direction of the regression coefficient indicates that the effect of FDR on ROA is positive and directly proportional, if the FDR value increases, then ROA will increase, and vice versa. This is in line with the signal theory which states that the higher the FDR, the higher the profit obtained by the bank. FDR has an influence on bank profits because it shows how much financing is distributed. Which Getting bigger financing, the greater the bank's profit, because financing is the bank's main income, assuming that the financing is not included in the problematic category.

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