Knowledge E
enriching | engaging | empowering

Research Article

The Influence of Financing Growth and CAR on ROA with NPF as a Moderating Variable

Hayatun Toyibah Masmuna, Yuliani Yuliani*, Kemas Muhammad Husni Thamrin

Sriwijaya University, Indonesia

Abstract.
This research examined whether financing growth and CAR affect ROA with NPF as a moderating variable of Sharia commercial banks. To address various potential answers, this research employed a quantitative methodology by analyzing financial data from Islamic commercial banks registered with the OJK during the period of 2011-2020. Sample selection was conducted using the purposive sampling method, resulting in the selection of 6 Islamic commercial banks as the sample. The data were analyzed using moderated regression analysis (MRA). The results of this research indicated that financing growth has a positive and significant impact on ROA,CAR has a positive and significant impact on ROA, NPF is not capable of moderating the influence of financing growth on ROA, and NPF is capable of moderating by weakening the influence of CAR on ROA. These findings contribute to Islamic commercial banks effectively channelling financing and achieving efficiency in CAR, thereby enhancing financial performance.

Keywords: ROA, financing growth, CAR, NPF

Corresponding Author: Yuliani Yuliani; email: yulianisyapril@unsri.ac.id

OPEN ACCESS

1. Introduction

The The banking sector in Indonesia has experienced rapid growth, parallel to the evolving societal awareness of the interest-free (riba) nature of Islamic banking systems, along with the increasing involvement of Shariah-compliant economic stakeholders. These factors have acted as catalysts for the expansion of Shariah banks in Indonesia, including Islamic commercial bank

[1]. Islamic commercial banks, like their conventional counterparts, are tasked with gathering and channeling funds to the public based on Islamic principles. Banks accumulate funds in the form of deposits and disburse them through financing[2]

Increasing and mobilizing financial resources within the Islamic economy must be guided by interest-free instruments. Therefore, financing in Islamic commercial banks utilizes a profit-sharing system, in which both the capital providers and entrepreneurs share the risks. They both prosper when returns are favorable and bear the consequences together when returns are unfavorable. This is in contrast to conventional banks that employ an interest-based system. The profit-sharing system of Islamic commercial

banks, which was implemented in the financing distribution of Bank Muamalat in 1998 during the economic crisis, enabled the bank to relatively maintain its performance and not be adversely affected by the rising interest rates on savings. As a result, the operational burden was lower compared to conventional banks, allowing Bank Muamalat to withstand the economic crisis, while conventional banks experienced a negative spread [3]. Empirical findings from Adela suggest that by replacing the concept of interest rates with profit-sharing rates, the central bank can control monetary policies, economic activities, and efficient resource allocation [4].

Bank Muamalat has successfully navigated through monetary crises, resulting in an increased level of existence for Islamic commercial banks. This rise can be attributed to heightened public trust in Islamic commercial banks, as evidenced by the establishment of other Islamic commercial banks in Indonesia. The most recent data published by the Financial Services Authority in 2020 shows the existence of 14 Islamic commercial banks. The emergence of new Islamic commercial banks has sparked competition between Shariah banks and conventional banks, both striving to enhance service offerings and their overall performance. Consequently, Islamic commercial banks must consistently earn and bolster the trust of their customers in order to maintain their financial health and thereby sustain and expand their operations.

The performance optimization of Islamic commercial banks can be observed through their ability to generate profits, which relies on the management's capability to handle existing assets and liabilities. To evaluate a bank's financial performance and gauge its level of profitability, one can refer to its [5]. The higher the attained level of profitability by an Islamic commercial bank, the greater its capacity to expand its operations. Conversely, a low level of profitability in an Islamic commercial bank signifies inadequate performance. The financial profitability of an Islamic commercial bank can be quantified using financial ratios, specifically the Return On Assets (ROA) ratio.

The Development of Return On Assets (ROA) in Islamic Commercial Banks and several influencing factors can be observed in Graph 1.

To enhance the profitability or return on assets (ROA) of an Islamic commercial bank, efforts should be made to maximize profit acquisition. One of the ways to achieve this is through the utilization of productive assets, with financing being one of them. The Resource-Based Theory suggests that by effectively utilizing and developing the resources possessed by an Islamic commercial bank through financing activities, the bank can generate income, and subsequently, through income generation, attain profitability, leading to optimal performance. Therefore, the larger the growth in financing, the greater the income obtained, resulting in higher profitability.
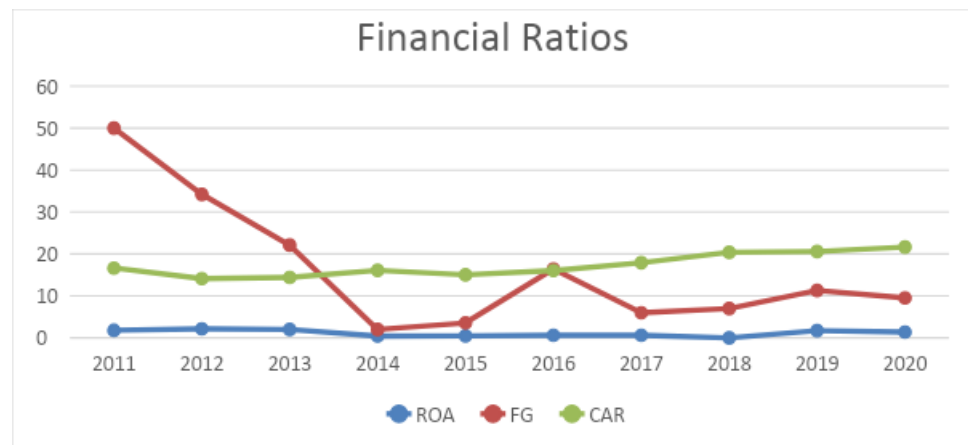
Figure 1: Development of Financial Ratios. Source: *Financial Services Authority (2023).*

Based on Graph 1, the financing growth of Islamic commercial banks experienced a significant decline in 2014, dropping from 22.1% in 2014 to 1.99%. This trend is consistent with the ROA, which also underwent a substantial decrease in 2014. In 2017, the financing growth once again witnessed a notable decline, falling to 6% from 16.41% in 2016. However, this is not aligned with the ROA, which remained unchanged in 2017. This highlights an unstable relationship between ROA and financing growth. Consequently, this can be interpreted as a lack of conformity with theory.

According to [6]; [7]; [8]; and [9] it is indicated that murabahah financing has a positive impact on ROA, while research by [10]; [11] asserts a negative influence of financing on ROA. In contrast, studies conducted by [12]; [13]; and [14] suggest that financing growth has no significant effect on ROA.

The financing provided to customers must be adjusted according to the adequacy of funds possessed by an Islamic commercial bank itself, as without sufficient funds, the bank cannot fulfill its function of channeling funds to the public. The sufficiency of funds held by an Islamic commercial bank can be observed through the Capital Adequacy Ratio (CAR) ratio. Within the context of the Resource-Based Theory, capital is one of the resources possessed by an Islamic commercial bank, utilized to mitigate damages or unforeseen shocks resulting from excessive risk-taking behavior by the bank itself [15]. Therefore, the higher the Capital Adequacy Ratio (CAR), the better the bank's ability to withstand risks associated with each risky financing/productive asset. If the Capital Adequacy Ratio (CAR) value is high, the bank is capable of financing its operational activities and providing a significant contribution to profitability.

Based on Graph 1, the Capital Adequacy Ratio (CAR) of Islamic commercial banks experienced a decline in 2012, dropping from 16.63% in 2011 to 14.13%. This trend contrasts with the increased Return on Assets (ROA) in 2012. In 2018, CAR witnessed an uptick to 20.39% from 17.91% in 2017, aligning with the ROA's improvement in the same

year. This highlights an unstable relationship between ROA and CAR. Consequently, this can be interpreted as a lack of conformity with theory.

According to studies by [16]; [17]; [18]; [19]; and [20] it is indicated that Capital Adequacy Ratio (CAR) has a positive impact on ROA. Conversely, research by [21]; [22]; [23]; ([24]; and [25] suggests a negative influence of Capital Adequacy Ratio (CAR) on ROA. On a different note, studies conducted by [26]; [27]; and [28] assert that Capital Adequacy Ratio (CAR) does not significantly affect ROA

In carrying out its financing function, banks inevitably encounter financing risk, wherein if customers fail to fulfill their obligations, this is referred to as financing risk. Financing risk can be measured using the Non-Performing Financing (NPF) ratio. Problematic financing refers to loans that face difficulties in repayment due to intentional factors and/or external factors beyond the borrowing customer's control [29].

Non-Performing Financing (NPF) will have a negative impact because it eliminates the bank's opportunity to generate profits from the financing extended by the bank. Hence, the higher the amount of financing disbursed by the Islamic commercial bank, the greater the risk of problematic financing (NPF). If the Non-Performing Financing (NPF) value is high, its level of profitability will decrease. This is consistent with the research by [30] which indicates that Non-Performing Financing (NPF) can moderate the influence of musyarakah financing on Return on Assets (ROA).

The lower the value of Non-Performing Financing (NPF) in an Islamic commercial bank, the higher the value of Capital Adequacy Ratio (CAR) will be. If the Capital Adequacy Ratio (CAR) is high, the bank is capable of financing its operational activities and contributing to high profitability. This aligns with the research by [31], which states that Non-Performing Financing (NPF) can moderate the relationship between Capital Adequacy Ratio (CAR) and Return on Assets (ROA).

2. Theory, Literature Review, and Hypothesis

2.1. Resource-Based Theory (RBT)

Resource-Based Theory is a perspective that has evolved within strategic management theory and the concept of a company's competitive advantage, believing that a company will attain its advantage when it possesses superior resources. Broadly speaking, Resource-Based Theory discusses how a company will achieve competitive advantage, thus yielding optimal performance, by possessing, controlling, and leveraging the resources owned by the company [31].

2.2. Return On Assets (ROA)

Return On Assets (ROA) measures a company's effectiveness, in this case, a bank's utilization of all its funds, indicating management's efficiency in using assets to generate profitability. The ratio used to gauge a bank's management capability in obtaining post-tax profits from the average total assets [18]. The formula to calculate ROA is as follows:

$$ROA = \frac{Net\ Profit\ After\ Tax}{Total\ Asset} x\ 100\%$$

2.3. Sharia Financing

Financing is a form of fund disbursement conducted in accordance with Islamic principles. It avoids the use of usury and emphasizes the application of justice values; these should guide Islamic banks in their financing activities [32]. According to Law No. 10 of 1998, Sharia-based financing is the provision of money or claims that are equated with it, based on an agreement or consent between the bank and another party, obligating the funded party to repay the money or claims after a specific period, with a return or profit sharing [33]

2.4. Capital Adequacy Ratio (CAR)

The Capital Adequacy Ratio (CAR) is a measure of a bank's capital sufficiency or the bank's capacity, with the existing capital, to cover potential losses in lending or securities trading. Capital adequacy is a crucial factor for banks in their effort to expand operations and absorb loss risks [34]. Capital adequacy serves as a significant tool to gauge the optimal amount of capital required by a bank in the event of unforeseen risks and uncertainties [35]. The formula to calculate CAR is as follows [36]:

$$CAR = \frac{Modal}{ATMR}\ x\ 100\%$$

2.5. Non Performing Financing (NPF)

Non-Performing Financing (NPF) broadly can be defined as a type of financing where payments are made irregularly and do not meet the minimum obligations as set, up to financing that becomes difficult to repay or even remains unrecoverable [37]. Non-Performing Financing (NPF) is the ratio between problematic financing and the total

financing disbursed by Islamic commercial banks. Based on the criteria established by Bank Indonesia, the categories included in NPF or problematic financing are substandard, doubtful, and loss financing [38].

The formula to calculate NPF is as follows [39] :

$$NPF = \frac{Problematic\ Financing}{Total\ Financing}\ x\ 100\%$$

3. Research Methods

This research employs secondary data referring to Islamic commercial banks registered with the OJK (Financial Services Authority) for the period 2011-2020. The sampling method utilized is purposive sampling with sample determination criteria encompassing: 1) Islamic commercial banks registered with the OJK for the period 2011-2020. 2) Islamic commercial banks that consecutively publish their financial reports for the period 2011-2020 and are accessible to the public. 3) Islamic commercial banks devoid of outlier data for the period 2011-2020. Based on the sample criteria, out of a population of 14 Islamic commercial banks registered with the OJK for the observation period of 2020, 6 Islamic commercial banks are selected as samples, resulting in a total of 60 observation data used.

The data collected in this research will be analyzed using E-Views 12 software. First, a descriptive analysis will be conducted to understand the overview of the mean, standard deviation, maximum, and minimum values of the data. Subsequently, an inferential analysis will be performed, consisting of selecting the regression model, testing for normality, conducting classical assumption tests, namely multicollinearity test, autocorrelation test, and heteroskedasticity test. Once the conditions for BLUE (Best Linear Unbiased Estimators) are met, further techniques will involve panel data regression analysis and moderated regression analysis.

4. Results and Discussion

4.1. Research Result

4.1.1. Descriptive Statistics

Descriptive analysis in this research is used to calculate the minimum, maximum, mean, and standard deviation values.

TABLE 1: Descriptive Statistics Results.

Variable	Maximum	Minimum	Mean	Standard Deviation
ROA	6.930	-2.360	0.838	1.183
FG	658.570	-18.790	32.123	85.789
CAR	45.900	11.350	20.171	8.661
NPF	9.800	0.100	3.427	2.154

Source: E-Views 12 Processing Results (2023)

Based on Table 1, it reports the statistics of the variables in this research. The average ROA value is 0.838%, with a minimum value of -2.360% and a maximum value of 6.930%. This indicates that the Islamic commercial bank has achieved a reasonably good level of profitability, as the average ROA value falls within the criteria of 'fairly good', in accordance with Bank Indonesia's requirement of $0.5\% < ROA \leq 1.25\%$.

The average ROE value is 5.896%, with a minimum value of -17.610% and a maximum value of 29.160%. This indicates that the Islamic commercial bank has achieved a reasonably good level of profitability, as the average ROE value falls within the criteria of 'fairly good', in accordance with Bank Indonesia's requirement of $5\% < ROE \leq 12.5\%$.

The average Financing Growth value is 32.123%, with a minimum value of -18.790% and a maximum value of 658.570%. This indicates that the commercial bank is performing exceptionally well in disbursing financing, as the average financing growth value falls within the criteria of 'very healthy', in accordance with Bank Indonesia's requirement of FAR value $< 75\%$.

The average CAR value is 20.171%, with a minimum value of 11.350% and a maximum value of 45.900%. This indicates that Islamic commercial banks have a very good capital position, as the average CAR value falls within the criteria of 'very good', in accordance with Bank Indonesia's requirement of CAR value $\geq 12\%$.

4.1.2. Inferential Statistics

i. Selection of Analytical Model

Chow test to choose between pooled least squares (common effect model) and fixed effect model. If the probability value is > 0.05, then the common effect model is chosen. However, if the probability value is < 0.05, then the fixed effect model will be chosen.

Based on Table 2, the Chow test result selected the Finite Element Method (FEM) with a probability value of $0.0000 < 0.05$. Therefore, a Hausman test is necessary to choose between the fixed effect model and the Random Effect Model. If the probability

TABLE 2: Chow Test Results.

Efects Test	Probability	Results
Crosss-Section F	0.0000	Selected Finite Element Method (FEM)

Source: E-Views 12 Processing Results (2023)

value of the Hausman test is > 0.05, then the Random Effect Model will be chosen. However, if the probability value of the Hausman test is < 0.05, then the Fixed Effect Model will be chosen.

TABLE 3: Hausman Test Results.

Test Summary	Probability	Results
Cross-section random	0.0186	Selected Finite Element Method (FEM)

Source: Results of E-Views 12 Analysis (2023)

Based on Table 3, the results of the Hausman test indicate that the Fixed Effects Model (FEM) is chosen, with a probability value of 0.0186 < 0.05.

ii. Normality Test

The normality test is conducted to determine whether the residual values are normally distributed or not. A good regression model should have normally distributed residual values. To determine whether the residual values are normally distributed, a simple way is to look at the Jarque-Bera probability value. If the Jarque-Bera probability value < 0.05, then the residual values are not normally distributed. However, if the Jarque-Bera probability value > 0.05, then the residual values are normally distributed.

TABLE 4: Normality Test Results.

Jarque Bera	Probability	Results
3.091478	0.213154	Normally Distributed

Source: *E-Views* 12 (2023) Processing Results

Based on Table 4, the results of the normality test show that the residual values are normally distributed with a Jarque-Bera probability value of 0.213 > 0.05.

4.1.3. Classical Assumption Test

i. Multicollinearity Test

The multicollinearity test is conducted to determine whether there is a high correlation between independent variables in a multiple regression model. If there is high correlation among the independent variables, the relationship between the independent

variables and the dependent variable can be disrupted. Detection of multicollinearity can be done by examining the correlation among the independent variables. If the correlation is less than 0.80, then multicollinearity is not present.

TABLE 5: Multicollinearity Test Results.

	X1	X2	Z
X1	1.000000	0.424184	-0.174637
X2	0.424184	1.000000	-0.483835
Z	-0.174637	-0.483835	1.000000

Source: E-Views 12 (2023) Processing Results

Based on Table 5, all independent variables have correlation values less than 0.80, indicating that multicollinearity is not present in this testing.

ii. Autocorrelation Test

The autocorrelation test is conducted to determine whether there is a correlation between disturbance errors in period t and errors in the previous period t-1 in the linear regression model used. Autocorrelation is detected using the Durbin Watson (d) test with the following conditions: first, a Durbin Watson value below -2 indicates positive autocorrelation. Second, a Durbin Watson value between -2 and +2 indicates no auto-correlation. Third, a Durbin Watson value above +2 indicates negative autocorrelation.

TABLE 6: Autocorrelation Test Results.

Durbin Watson	Results
1.476	No autocorrelation is present.

Source: E-Views 12 (2023) Processing Results

Based on Table 6, the results of the autocorrelation test for model 1 (dependent variable ROA) show a Durbin-Watson statistic value of 1.476, which falls between -2 and +2. This indicates that there is no autocorrelation present in the test results. Similarly, in model 2 (dependent variable ROE), the Durbin-Watson statistic value is 1.405, also falling between -2 and +2, which signifies the absence of autocorrelation in the test results.

iii. Heteroskedasticity Test

Heteroskedasticity test is conducted to determine whether there is variance inequality in residuals from one observation to another. The presence of heteroskedasticity is tested using the Glejser method by regressing the absolute value of residuals on the independent variable. If each independent variable does not have a significant impact on the absolute residual (α = 0.05), then there is no heteroskedasticity phenomenon in the regression model.

TABLE 7: Results of Heteroskedasticity Test.

Variable	Probability
FG CAR NPF	0.3766 0.5811 0.1302

Source: E-Views 12 (2023) Processing Results

Based on Table 7, the results of the heteroskedasticity test show that the probability values for all independent variables are greater than the significance level (0.05), indicating that heteroskedasticity is not present in this testing.

iv. F-Test (Simultaneous Testing)

The model's fitness test (goodness of fit) is conducted to measure the accuracy of the sample regression function in statistically estimating actual values using the F-statistic, which indicates whether all independent variables included in the model collectively have an impact on the dependent variable.

TABLE 8: Results of F-Test.

F-statistics	Probability	Results
36.488	0.000	H_a Accepted

Source: *E-Views 12* (2023) Processing Results

Based on Table 8, the results of the F-test show a probability value of F-statistic as $0.000 < 0.05$. Therefore, Ha is accepted and H^0 is rejected, indicating that collectively, the variables Financing Growth, *Capital Adequacy Ratio* (CAR), and *Non-Performing Financing* (NPF) have a positive and significant impact on Return on Assets (ROA).

v. Coefficient of Determination Test (R2)

The coefficient of determination is used to measure the level of the model's ability to explain the variation in the dependent variable. A small R2 value indicates limited ability of the dependent variables to explain. An R2 value approaching one means that the independent variables provide almost all the information needed to predict the variation in the dependent variable.

TABLE 9: Results of R-squared Test.

R-squared
0.851272

Source: *E-Views 12* (2023) Processing Results

Based on Table 9, the coefficient of determination or R-squared ($R^{2)}$) value obtained is 0.851272, meaning that 85.1272% of the variation in the variable *Return On Assets* (ROA) is influenced by the variables *Financing Growth, Capital Adequacy Ratio* (CAR),

and *Non-Performing Financing* (NPF), while the remaining 14.8728% is influenced by other variables not included in this research.

vi. T-Test (Partial Testing)

The t-statistic test essentially indicates the extent to which the influence of an explanatory variable individually explains the variation in the dependent variable.

TABLE 10: T-Test Results.

Variable	Coefficient	Probability	Results
FG CAR	0.841154 0.030312	0.0000 0.0441	Significant Significant
NPF	-0.261460	0.0000	Significant
FG*NPF	-2.93E-05	0.9904	Not Significant
CAR*NPF	-0.011763	0.0003	Significant

Source: EViews 12 (2023) Processing Results.

Based on Table 10, the results of the t-test are as follows:

1. **The Influence of Financing Growth on Return on Assets (ROA).**

The coefficient value of 0.841154 with a probability value of $0.0000 < 0.05$. Therefore, H_1 is accepted and H_0 is rejected, indicating that partially, the Financing Growth variable has a positive and significant impact on *Return on Assets* (ROA).

1. **The Impact of Capital Adequacy Ratio (CAR) on Return on Assets (ROA).**

   The coefficient value of 0.030312 with a probability value of $0.0441 < 0.05$. Therefore, H_2 is accepted and H_0 is rejected, indicating that partially, the *Capital Adequacy Ratio* (CAR) variable has a positive and significant impact on *Return on Assets* (ROA).

2. **Non-Performing Financing (NPF) Moderates the Influence of Financing Growth on Return on Assets (ROA).**

   The coefficient value of -2.93E-05 with a probability value of $0.9904 > 0.05$. Therefore, H_3 is rejected and H_0 is accepted, indicating that *Non-Performing Financing* (NPF) is unable to moderate the influence of *Financing Growth* on *Return on Assets* (ROA).

3. **Non-Performing Financing (NPF) Moderates the Impact of Capital Adequacy Ratio (CAR) on Return on Assets (ROA).**

   The coefficient value of -0.011763 with a probability value of $0.0003 < 0.05$. Therefore, H_4 is accepted and H_0 is rejected, indicating that *Non-Performing*

Financing (NPF) is capable of moderating by weakening the influence of *Capital Adequacy Ratio* (CAR) on *Return on Assets* (ROA).

4.2. Discussion of Research Results

The Influence of Financing Growth on ROA

The results of this research indicate that financing growth has a positive and significant impact on Return on Assets (ROA). This means that the higher the value of financing growth, the higher the value of ROA as well. This finding substantiates the correctness of the research hypothesis.

The Resource-Based Theory posits that by harnessing and developing the resources possessed by Sharia Commercial Banks through financing disbursement, banks can generate revenue. Subsequently, through this revenue, banks can achieve profitability, thereby attaining optimal performance. Therefore, the larger the financing that can be disbursed, the greater the revenue earned, leading to a substantial Return on Assets (ROA) and overall profitability.

The findings of this research are consistent with the research conducted by [6]; [7]; [8]; and [9] which state that murabahah financing has a positive and significant impact on Return on Assets (ROA). However, they are not aligned with the studies carried out by [10]; [11] which assert that financing has a negative impact on ROA. Similarly, the results of research conducted by [12]; [13]; and [14] indicate that financing growth does not have an impact on ROA.

The Influence of Capital Adequacy Ratio (CAR) on Return on Assets (ROA).

The results of this research demonstrate that Capital Adequacy Ratio (CAR) has a positive and significant impact on Return on Assets (ROA). This implies that the higher the value of Capital Adequacy Ratio (CAR), the higher the value of ROA as well. This finding substantiates the correctness of the research hypothesis.

The findings of this research are in line with the Resource-Based Theory, which states that capital is one of the resources possessed by Sharia Commercial Banks, utilized to withstand damages or unforeseen shocks due to excessive risk-taking behavior by the banks themselves. Therefore, the higher the Capital Adequacy Ratio (CAR), the better the bank's ability to cover risks and finance its operational activities, thereby enabling the bank to enhance profitability (ROA).

The research findings are consistent with studies conducted by [16]; [17]; [18]; [19]; and [20] which state that Capital Adequacy Ratio (CAR) has a positive and significant impact on ROA. However, they do not align with the results of research conducted by [21]; [22];

[23]; ([24]; and [25] which assert that Capital Adequacy Ratio (CAR) negatively affects ROA. Similarly, the findings also diverge from the research conducted by [26]; [27]; and [28] which state that Capital Adequacy Ratio (CAR) does not have an impact on ROA.

Non-Performing Financing (NPF) Moderates the Impact of Financing Growth on ROA

The results of this research indicate that Non-Performing Financing (NPF) is unable to moderate the relationship between financing growth and Return on Assets (ROA). This means that low Non-Performing Financing (NPF) or higher income generated from financing disbursement is capable of mitigating the existing credit risks. As a result, Non-Performing Financing (NPF) is not capable of weakening the relationship between financing growth and ROA. This is due to the fact that a significant portion of Non-Performing Financing (NPF) in Sharia Commercial Banks is less than 5%, thereby insufficient to weaken the relationship and influence of financing growth on ROA.

The findings are in line with the research conducted by [30], which states that Non-Performing Financing (NPF) does not moderate the weakening of murabaha financing on Return on Assets (ROA). However, they are not consistent with the results of the research carried out by [30], which asserts that Non-Performing Financing (NPF) is capable of moderating the influence of musyarakah financing on Return on Assets (ROA).

5. Finding and Conclusion

Based on the results and previous discussions, it can be concluded that financing growth has a positive and significant influence on Return on Assets (ROA). Capital Adequacy Ratio (CAR) also has a positive and significant influence on ROA. Non-Performing Loans (NPF) are not able to moderate the influence of financing growth on ROA. Conversely, NPF moderates by weakening the impact of CAR on ROA. In other words, ROA is expected to decrease due to suboptimal utilization of bank capital caused by the significant NPF value. This research contributes to Islamic commercial banks by facilitating effective financing practices and enhancing CAR efficiency, thereby potentially improving financial performance.

6. Implications, Limitations, and Suggestions

For academics, it is anticipated that this research will serve as an additional point of reference for researchers and writers who are interested in investigating similar topics. Furthermore, it is expected that this research will have the capacity to advance research by incorporating additional variables that influence Return on Assets (ROA), such as profit margins, profit-sharing ratios, operating costs, and various other variables. This

augmentation of variables aims to enhance the explanatory power of the findings, thus enabling a comprehensive exploration of diverse phenomena associated with the aforementioned topic.

References

[1] Ningsih S, Dukalang H. Penerapan Metode Suksesif Interval Pada Analisis Regresi Linier Berganda. Jambura Journal Of Mathematics. 2019;1(1):43–53.

[2] Yulyani E, Diana N. Pengaruh Car Dan Fdr Terhadap Pembiayaan Murabahah Dengan Npf Sebagai Variabel Moderating. https://doi.org/10.29300/aij.v7i1.4005.

[3] Nurjanah A. Studi Komparasi Kinerja Keuangan Perbankan Antara Bank Syariah Dan Bank Konvensional. 2015.

[4] Adela H. The Impact Of Musharakah Financing On The Monetary Policy In The Islamic Economy. Review Of Economics And Political Science. 2018;3(3⁄4):139–52.

[5] Saputra N. Nazipawati. Pengaruh Pembiayaan Terhadap Profitabilitas Bank Syariah Mandiri Periode 2012-201. Klassen : Jurnal Ilmu Ekonomi Dan Perencanaan Pembangunan. 2021;1:50–71.

[6] Purwati P, Sagantha F. Pengaruh Pembiayaan Murabahah Dan Pembiayaan Musyarakah Terhadap Profitabilitas Dengan Non Performing Financing (NPF) Sebagai Variabel Moderasi. Jurnal Revenue : Jurnal Ilmiah Akuntansi. 2022;3(1):290–311.

[7] Apn S. Maharani. The Effect Of Murabahah, Musyarakah, And Ijarah Financing On Profitability With Non Performing Financing As A Moderation Variable In Islamic Commercial Banks For The 2016-2020 Period. Cashflow : Current Advanced Research On Sharia Finance And Economic Worldwide. 2022;1(4):151–68.

[8] Ramadhanti F. Atichasari As, Kristanti K. Pengaruh Pembiayaan Murabahah Mudharabah Dan Musyarakah Terhadap Profitabilitas (ROA) Dengan Non Performing Financing (NPF) Sebagai Variabel Moderasi (Studi Pada Bank Muamalat Indonesia Periode 2012-2021). Fiscal: Jurnal Akuntansi Dan Perpajakan. 2023;1:70.

[9] Sr A, Za A. The Impact Of Financing Revenues Of The Banks On Their Profitability: An Empirical Study On Local Jordanian Islamic Banks. European Journal Of Business And Management. 2016;8:195–202.

[10] Azhar I. Arim. Pengaruh Pembiayaan Jual Beli, Pembiayaan Bagi Hasil, Dan Non Performing Finance Terhadap Profitabilitas (Studi Kasus Pada Bank Umum Syariah Di Indonesia Periode 2012 - 2014) [Akuntansi Riset]. Jurnal Aset. 2017;9:14–6.

[11] Mawaddah N. Faktor-Faktor Yang Mempengaruhi Profitabilitas Bank Syariah. Etikonomi. 2015;14(2): ; Epub Ahead Of Print. https://doi.org/10.15408/etk.v14i2.2273.

[12] Ningsih W, Yusuf MA, Handayani YI. Yusuf Ma, Handayani Yi. Pengaruh Pembiayaan Mudharabah, Musyarakah, Dan Murabahah Terhadap Profitabilitas Bprs Di Daerah Tapal Kuda Jawa Timur. Jurnal Ilmiah Bisnis Dan Ekonomi Asia. 2023;17(1):51–61.

[13] Sarmigi E. Pengaruh Dana Pihak Ketiga Dan Pertumbuhan Pembiayaan Terhadap Profitabilitas Bank Umum Syariah Periode 2015-2019. Al Fiddhoh. Journal Of Banking, Insurance, And Finance. 2021;2(2):56–65.

[14] Ma M, Anwar S. Determinan Profitabilitas Perbankan Syariah Di Indonesia: Peran Moderasi Non Performing Financing. Journal Of Accounting And Digital Finance. 2021;1(1):49–58.

[15] Harkati R. Alhabshi Sm, Kassim S. Does Capital Adequacy Ratio Influence Risk-Taking Behavior Of Conventional And Islamic Banks Differently? Empirical Evidence From Dual Banking System Of Malaysia. J Islamic Account Bus Res. 2020;11:1989–2015.

[16] Suroso S. Analysis Of The Effect Of Capital Adequacy Ratio (CAR) And Loan To Deposit Ratio (LDR) On The Profits Of Go Public Banks In The Indonesia Stock Exchange (Idx) Period 2016 – 2021. Economist Journal: Scientific Journal Of Accountancy. Manag Finance. 2022;2:45–53.

[17] Dr U, Utami T. Pengaruh Pembiayaan Bagi Hasil Dan Tingkat Kesehatan Bank Terhadap Kinerja Keuangan Dengan Pembiayaan Bermasalah Sebagai Variabel Pemoderasi. Nominal: Barometer Riset Akuntansi Dan Manajemen. 2021;10(2):188–200.

[18] Anwar Y, Murwaningsari E. The Effect Of Credit Risk And Capital Adequacy Ratio Upon Return On Asset (A Case Study At Banking Listed In Indonesia Stock Exchange). The Accounting Journal Of Binaniaga. 2019;2(2):23–38.

[19] Olalere Oe, Bin Omar Wa, Kamil S. Bank Specific And Macroeconomic Determinants Of Commercial Bank Profitability: Empirical Evidence From Nigeria. International Journal Of Finance & Banking Studies. 2017;6:25.

[20] Javaid S, Anwar J, Zaman K, et al. Yükseeğitimde Toplamkalityönetimi. Yükseeğitimde Toplamkalityönetimi. 2007;2:739–49.

[21] Btt D, Dp N. Determinants Of Profitability In Commercial Banks In Vietnam, Malaysia And Thailand. Journal Of Asian Finance. Economics And Business. 2020;7:133–43.

[22] Tnl N, Vc N. The Determinants Of Profitability In Listed Enterprises: A Study From Vietnamese Stock Exchange. Journal Of Asian Finance. Economics And Business. 2020;7:47–58.

[23] Choerudin A, Yuniatun E, Kusdiasmo B. Pengaruh Non Performing Loan (NPL) Dan Loan To Deposit Ratio (LDR) Terhadap Return On Asset (ROA) Dengan Capital Adequacy Ratio (CAR) Sebagai Variabel Intervening (Studi Pada Bank Umum Yang Terdaftar Di Bei Periode Tahun 2012-2015). Probank. 2016;2:2252–7886.

[24] Noman A, Pervin S, Chowdhury M. The Effect Of Credit Risk On The Banking Profitability: A Case On Bangladesh. Global Journal Of Management And Business Research. C Finance. 2015;15:41–8.

[25] Mukhlis I. Kinerja Keuangan Bank Dan Stabilitas Makroekonomi Terhadap Profitabilitas Bank Syariah Di Indonesia. Jurnal Keuangan Dan Perbankan. 2012;16:275–85.

[26] Syafrizal A, Ilham RN, Muchtar D, Al E. Effect Of Capital Adequacy Ratio, Non Performing Financing, Financing To Deposit Ratio, Operating Expenses And Operational Income On Profitability At Pt. Bank Aceh Syariah. Journal Of Accounting Research. Utility Finance And Digital Assets. 2023;1(4):312–22.

[27] Kusumastuti W, Alam A. Analysis Of Impact Of Car, Npf, Bopo On Profitability Of Islamic Banks (Year 2015-2017). Journal Of Islamic Economic Laws. 2019;2(1):30–59.

[28] Million G, Matewos K, Sujata S. The Impact Of Credit Risk On Profitability Performance Of Commercial Banks In Ethiopia. Afr J Bus Manag. 2015;9(2):59–66.

[29] Irsan A. Irfan, Astuty W. Pengaruh Dana Pihak Ketiga Dan CAR Terhadap Pembiayaan Mudharabah Dengan Npf Sebagai Variabel Moderating Pada Bank Umum Syariah Di Indonesia. Jurnal Riset Akuntansi & Bisnis. 2022;8:11–7.

[30] Suryadi N. Burhan. Pengaruh Pembiayaan Mudharabah, Murabahah, Dan Musyarakah Terhadap Profitabilitas Dengan NPF Sebagai Variabel Moderasi Pada Bank Umum Syariah. Management Studies And Entrepreneurship Journal. 2022;3:169–83.

[31] Hermawan S, Hariyanto W, Sriyono S, Fediyanto N. Keterkaitan The Resources Based Theory Dengan Intellectual Capital Disclosure, Implementasi Pada Website, Dan Respon Manajemen Perguruan Tinggi. Jati. Jurnal Akuntansi Terapan Indonesia. 2020;3(2): ; Epub Ahead Of Print. https://doi.org/10.18196/jati.030227.

[32] Dewantara A, Bawono A. Influence Analysis Of Mudharabah, Musharakah, And Murabaha Financing To Profitability Of Sharia Commercial Bank In Indonesia 2016-2019 With Non-Performing Financing As Intervening Variable. Islamiconomic: Jurnal Ekonomi Islam. 2020;11:109–26.

[33] Syaikh Abdurrahman Siddik Bangka Belitung S. Konsep Pembiayaan Dalam Perbankan Syari'ah Rahmat Ilyas. 2015.

[34] Liliani K. The Influence Of Third Party Funds, Non Performing Financing (NPF), Return On Asset (ROA), And Capital Adequacy Ratio (CAR) Of The Financing Profit Sharing

Of Islamic Banks In Indonesia Period Of 2010-2013. E-Proceeding Of Management. 2015;2:3267–73.

[35] Yildirim H, Ildokuz B. Determining The Relationship Between Camls Variables And Profitability: An Application On Banks In The Bist Bank Index. In: Contemporary Studies In Economic And Financial Analysis. Emerald Group Holdings Ltd. 2020. Pp. 85–103.

[36] Nahrawi A. Pengaruh Capital Adequacy Ratio (CAR), Return On Assets (ROA) Dan Non Performing Financing (NPF) Terhadap Pembiayaan Murabahah Bni Syariah. Perisai : Islamic Banking And Finance Journal. 2017;1(2):141–79.

[37] Mizan. DPK, CAR, NPF, DER, Dan ROA Terhadap Pembiayaan Murabahah Pada Bank Umum Syariah. Balance. 2017;16:72–83.

[38] Vien R, Aziza S, Sofyan A. Analisis Pengaruh Dana Pihak Ketiga, Non Performing Financing, Capital Adequacy Ratio, Modal Sendiri Dan Margin Keuntungan Terhadap Pembiayaan Murabahah.

[39] Nugroho L, Badawi A, Nugraha E, Putra YM. What Determines Islamic Performance Ratio Of Islamic Banking In Indonesia: An Analysis Using Financing Deposit To Ratio As Moderator. Share: Jurnal Ekonomi Dan Keuangan Islam. 2021;10(1):104–23.