The Influence of Financial Ratios and Qardhul Hasan Financing on Financial Performance in Islamic Banks

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ABSTRACT: The financial performance of a bank reflects the level of success in managing resources to achieve its goals. One method of evaluating the financial performance of a bank is by using ROA (Return on Assets). The objective of this research is to identify the impact of Qardhul Hasan Financing and financial ratios on the financial performance of Islamic banks in Indonesia. This study is an explanatory research that utilizes secondary data, specifically annual reports published between 2014 and 2021. The research population consists of all Islamic banks in Indonesia, and a sample of 10 Islamic banks was selected using sampling techniques. Multiple linear regression analysis was used to analyze the data. The findings indicate that overall, the variables QARDH, NPF, FDR, CAR, and BOPO have an influence on ROA as an indicator of financial performance. However, individually, the variables QARDH, NPF, and CAR do not have a significant impact on ROA. On the other hand, BOPO and FDR have a significant impact on ROA.

KEYWORDS: Financial Ratios, QARDH (Qardhul Hasan), ROA.

INTRODUCTION
The role of banking has a significant impact on the economic activities of a country. Banks, as financial intermediaries, collect funds from individuals or units with economic surplus in the form of deposits, and then redistribute them to individuals or units in need in the form of credits or financing (Muhammad, 2005). Islamic banks, as financial institutions, provide financing services and other financial services operating within the monetary circulation and payment system. Islamic principles serve as the foundation for every activity of Islamic banks, which adopt profit-sharing mechanisms and do not involve interest.

Bank Muamalat Indonesia (BMI), established on May 1, 1992, through the initiative of the Indonesian Council of Ulama, became the first Islamic bank in Indonesia and a milestone in the development of Sharia-compliant financial institutions. The establishment of BMI was followed by the establishment of other Islamic financial institutions, including Sharia-compliant insurance, Sharia-compliant pawnshops, as well as Sharia-compliant financial products such as Islamic stock markets, Islamic mutual funds, and Islamic bonds.

The financial performance of a bank reflects its financial situation during a specific period, including fund collection and distribution. The bank's financial statements serve as important indicators in evaluating its financial performance. In this study, Return on Assets (ROA) serves as an indicator to measure the effectiveness of the bank in utilizing its assets. ROA is one of the metrics used in evaluating the financial performance of banks.

From another perspective, financial performance can serve as an indicator to evaluate the sustainability and compliance in conducting sound banking practices according to applicable regulations. The central bank (BI) has implemented regulations related to the health of banks. In this study, the factors influencing ROA include NPF, FDR, CAR, BOPO, and an additional type of financing, namely Qardhul Hasan Financing.

This study refers to a journal article by Hutomo Mandala Putra (2020) in the Journal of Management Science, which is indexed in Scopus and Sinta3. The article discusses the factors influencing the financial performance of Islamic banks. What differentiates this finding is that Hutomo Mandala Putra's study uses LDR as one of the ratios, while this study uses FDR ratio and does not include Qardhul Hasan Financing, which was included in Hutomo Mandala Putra's study.

Based on the previous background information, the main focus of this research is to evaluate whether QARDH, NPF, FDR, CAR, and BOPO have an impact on the financial performance (ROA) in Islamic banks.
Referring to the background information and problem formulation described, this study aims to test and analyze the impact of NPF, FDR, CAR, BOPO, and Qardhul Hasan Financing on the financial performance (ROA) in Islamic banks.

**LITERATURE REVIEW**

**Stewardship Theory**

Stewardship Theory is a concept that reflects a condition where managers are not driven by their own individual goals but are more focused on achieving organizational goals for the greater good. This theory is based on sociological and psychological principles that design the role of executives as motivated managers who act in accordance with the desires of owners or entrusted parties. Additionally, this theory emphasizes that managers will not abandon the organization because they are committed to achieving its goals. This theory is designed to enable researchers to test conditions in which corporate executives, as stewards, can be motivated to act optimally in the interests of principals (Donaldson and Davis, 1989).

Referring to the above theory, managers or organizational leaders act as "stewards" responsible for managing the organization effectively and maximizing profits for shareholders or customers. In the context of Islamic banking, this theory emphasizes that Islamic bank managers must be responsible for ensuring that the operational activities of the bank run effectively and efficiently. Islamic bank managers must adhere to Sharia principles and ensure that operational activities do not violate these principles.

Stewardship Theory also emphasizes that Islamic bank managers should collaborate with other stakeholders, such as customers, shareholders, and the general public, to ensure the long-term success of the Islamic bank.

**Financial Performance**

Financial performance is an evaluation of the extent to which a company has achieved its economic goals. In an effort to improve societal welfare (Fahmi, 2014), the financial performance of a Shariah bank reflects the financial situation that occurs over a specific period, including fund collection and distribution.

**Return on Assets (ROA)**

ROA is an indicator used to evaluate management's ability to generate pre-tax profits from capital management (Dendawijaya, 2003). In the context of banking, this indicator is used to assess profitability, and a high ROA indicates good health for the bank. ROA can be formulated as follows:

$$ ROA = \frac{\text{Earning before tax}}{\text{Total assets}} $$

**Qardhul Hasan Financing (QARDH)**

QARDH is a type of financing that has social principles, where no additional costs are charged and only the principal amount of the loan needs to be repaid. According to the Law on Shariah Banking No. 21 of 2008, Shariah banks can operate their social functions by accepting funds from charity, endowments, zakat, or other social contributions, and channeling them to organizations managing zakat. Qardhul Hasan Financing can be formulated as follows:

$$ QARD = \frac{\text{Qardhul hasan financing}}{\text{Total qardhul hasan financing}} $$

**Capital Adequacy Ratio (CAR)**

CAR is an indicator used to evaluate the extent to which a bank can maintain capital and control potential risks that may arise and impact the bank's capital adequacy. A high CAR significantly contributes to profitability, indicating that the bank has assets that can be easily converted into cash without significant long-term losses. The formula for CAR is:

$$ CAR = \frac{\text{Capital}}{\text{ATMR}} $$
Non-Performing Ratio (NPF)
NPF is a financial indicator used to evaluate the extent to which a bank’s management is able to handle troubled financing compared to the total financing of the bank. Troubled financing includes financing with low quality, doubtful, or unrecoverable. The lower the NPF, the smaller the financing risk borne. The formula for NPF is as follows:

\[ NPF = \frac{\text{Non performing financing}}{\text{Total financing}} \]

Financing to Deposit Ratio (FDR)
FDR is an indicator used to evaluate the liquidity level of a bank, which reflects the bank’s ability to meet financing demands with its total assets. In other words, this ratio evaluates the extent to which a bank can meet the obligations of customers who will withdraw funds that have been used by the bank for financing. The formula for FDR is as follows:

\[ FDR = \frac{\text{Total amount of financing provided}}{\text{Total third party funds}} \]

Operating Expenses to Operating Income Ratio (BOPO)
BOPO is an efficiency ratio used to evaluate the extent to which a bank’s management can control operating expenses relative to operating income. The lower the BOPO, the more efficient the bank is in managing the operational costs incurred. This means that the bank has the ability to reduce its operating expenses. As a result, the likelihood of the bank encountering problems becomes smaller. The formula for BOPO is as follows:

\[ BOPO = \frac{\text{Operating expenses}}{\text{Operating income}} \]

The theoretical framework of this research discusses the influence of QARDH, NPF, CAR, FDR, and BOPO on financial performance (ROA). The relationships among these variables can be explained as follows:

Figure 2.1 Theoretical Framework Model

Based on the above theoretical framework, it is assumed that:

\[ H_1 : \text{QARDH has a positive influence on ROA} \]
H 2 : CAR has a positive influence on ROA
H 3 : NPF has a negative influence on ROA
H 4 : FDR has a positive influence on ROA
H 5 : BOPO has a negative influence on ROA

RESEARCH METHODS

This study uses an explanatory method with secondary data in the form of annual reports from the period of 2014 to 2021. The population of the study consists of 13 Islamic banks, including Bank BSI formed in 2021 through the merger of BNI Syariah, Bank Syariah Mandiri, and BRI Syariah. The research sample was selected using purposeful sampling method with the criteria that banks have qardhul hasan financing that can be studied, resulting in 10 selected Islamic banks as the sample.

The analysis in this study employs multiple linear regression analysis to determine the extent to which independent variables influence the dependent variable. The dependent variable in this research is ROA, while the independent variables include QARDH, NPF, FDR, CAR, and BOPO.

Multiple linear regression analysis must meet classical assumptions such as data normality, no autocorrelation, no multicollinearity, and no heteroscedasticity. Additionally, this analysis involves hypothesis testing, including the coefficient of determination test, significance test (F-test), and t-test. The equation of the multiple linear regression model in this study is as follows:

\[ Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon \]

Where:
Y = Dependent variable (ROA)
a = Constant
\[ \beta_1 – \beta_5 = \text{Regression coefficients of independent variables} \]
X1 = QARDH
X2 = CAR
X3 = NPF
X4 = FDR
X5 = BOPO
\[ e = \text{Error term (unexplained variables in the model)} \]

RESULTS

After testing the classical assumptions, it was found that the data meets the necessary requirements. The data distribution is proven to be normal, and there are no issues such as autocorrelation, multicollinearity, and heteroscedasticity. Thus, further analysis can be conducted, namely multiple linear regression analysis by including ROA as the dependent variable and QARDH, NPF, CAR, FDR, and BOPO as independent variables.

Table 1. Multiple Linear Regression Equation

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QARDH (X1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAR (X2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPF (X3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDR (X4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOPO (X5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
</tr>
<tr>
<td>QARDH (X1)</td>
<td>5,111</td>
<td>2,855</td>
<td>1,790</td>
</tr>
<tr>
<td>CAR (X2)</td>
<td>4,625</td>
<td>2,560</td>
<td>1,807</td>
</tr>
<tr>
<td>NPF (X3)</td>
<td>,009</td>
<td>,008</td>
<td>1,164</td>
</tr>
<tr>
<td>FDR (X4)</td>
<td>,058</td>
<td>,032</td>
<td>1,828</td>
</tr>
<tr>
<td>BOPO (X5)</td>
<td>,013</td>
<td>,005</td>
<td>2,895</td>
</tr>
<tr>
<td></td>
<td>,114</td>
<td>,010</td>
<td>-11.652</td>
</tr>
</tbody>
</table>

Source: SPSS 26.0 output, secondary data processing, 2023
Through the multiple linear regression analysis shown in Table 1 above, we can gain an understanding of the relationship between the independent variables and the dependent variable. This relationship is expressed in the following equation:

\[ Y = 5.111 + 4.625QARDH + 0.009CAR + 0.058NPF + 0.013FDR - 0.114BOPO + e \]

The constant value in the equation indicates that in the absence of the variables QARDH, CAR, NPF, FDR, and BOPO, the ROA remains constant at 5.111.

The regression coefficient for the variable QARDH is 4.625, indicating a positive relationship with financial performance. This means that if the QARDH increases by 1 percent, the financial performance will increase by 4.625, assuming the other variables remain constant. However, the significance level is 0.079, which is greater than 0.05, indicating that the influence of QARDH on ROA is not statistically significant.

The regression coefficient for the variable CAR is 0.009, indicating a positive relationship with financial performance. It can be concluded that if CAR increases by 1 percent, the financial performance increases by 0.009, assuming the other variables remain constant. However, the significance level is 0.251, which is greater than 0.05, indicating that the influence of CAR on ROA is not statistically significant.

The regression coefficient for the variable NPF is 0.058, indicating a positive relationship with financial performance. It can be concluded that if NPF increases by 1 percent, the financial performance will increase by 0.058, assuming the other variables remain constant. However, the significance level is 0.075, which is greater than 0.05, indicating that the influence of NPF on ROA is not statistically significant.

The regression coefficient for the variable FDR is 0.013, indicating a positive relationship with financial performance. This means that if FDR increases by 1 percent, the financial performance increases by 0.013, assuming the other variables remain constant. Additionally, the significance level is 0.006, which is smaller than 0.05, indicating a significant influence of FDR on ROA.

The regression coefficient for the variable BOPO is -0.114, indicating a negative relationship with financial performance. This means that if BOPO increases by 1 percent, the financial performance will decrease by 0.114, assuming the other variables remain constant. Furthermore, the significance level is 0.000, which is smaller than 0.05, indicating a significant influence of BOPO on ROA.

The coefficient of determination is used to evaluate how well the model can explain the variation in the independent variables.

### Table 2. Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.931*</td>
<td>.866</td>
<td>.849</td>
<td>.23942</td>
<td>2,235</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BOPO (X5), QARDH (X1), FDR (X4), CAR (X2), NPF (X3)
b. Dependent Variable : ROA (Y)

**Source:** SPSS 26.0 output, secondary data processing, 2023

Based on the coefficient of determination test results in Table 2, an Adjusted R Square value of 0.849 (84.9%) is found. It can be concluded that the independent variables (QARDH, NPF, FDR, BOPO, and CAR) in this study can explain 84.9% of the variation in ROA, while the remaining 15.1% is explained by other factors not examined in this study.

ANOVA test is conducted to determine the significance of the regression model. The results of the F-test can be found in Table 3.

### Table 3. ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>14,504</td>
<td>5</td>
<td>2,901</td>
<td>50,606</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>2,236</td>
<td>39</td>
<td>.057</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16,740</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable : ROA (Y)
b. Predictors: (Constant), BOPO (X5), QARDH (X1), FDR (X4), CAR (X2), NPF (X3)

**Source:** SPSS 26.0 output, secondary data processing, 2023
Based on Table 3, the significance value is $0.000 < 0.05$, indicating that all independent variables, such as QARDH, BOPO, NPF, FDR, and CAR, together have a significant influence on the projected financial performance of Islamic banks as measured by ROA.

**DISCUSSION AND CONCLUSION**

**Discussion**

**The Influence of Qardhul Hasan Financing (X1) on ROA (Y)**

The testing results for H1 indicate that QARDH has a positive influence on financial performance, with a regression coefficient value of 4.625. However, the obtained significance value of 0.079 is greater than 0.05, indicating that the influence of QARDH on financial performance is not significant.

**The Influence of CAR (X2) on ROA (Y)**

The testing results for H2 reveal that CAR has a positive influence on financial performance, with a regression coefficient value of 0.009. However, the obtained significance value of 0.251 is also greater than 0.05, indicating that the influence of CAR on financial performance is not significant. Nevertheless, these results suggest that a higher CAR tends to improve financial performance. A high CAR ratio indicates that the bank has sufficient capital to fund operational activities, reduce funding costs, and increase the profitability of Islamic banks. Additionally, a high CAR ratio instills greater confidence in the community towards Islamic banks and provides assurance for the safety of public funds. These findings are consistent with the previous findings by Hutomo Mandala Putra (2020).

**The Influence of NPF (X3) on ROA (Y)**

The testing results for H3 indicate that NPF has a positive influence on financial performance. However, a previous study by Vita T and Osmad M (2013) showed different results, indicating a negative influence on ROA. In this study, the regression coefficient for NPF is obtained as 0.058 with a significance value of 0.075, which is smaller than 0.05. Therefore, it can be concluded that the influence of NPF on financial performance is not significant. Thus, as the NPF level increases, the financial performance measured by ROA tends to decline.

An increase in the NPF level in a bank can lead to losses and a decrease in the quality of the bank's financing. Therefore, Islamic banks need to be cautious in selecting halal, safe, and profitable businesses. Supervision of customer activities also needs to be tightened to prevent the misuse of funds and to prevent dishonest customers from concealing profits. By taking these measures, NPF risks can be controlled and bank profits can increase, leading to an improvement in the quality of financial performance measured by ROA in Islamic banks.

These findings are consistent with the findings of Hutomo Mandala Putra (2020), but inconsistent with the previous findings by Vita T and Osmad M (2013), which indicated a negative influence of NPF on ROA.

**The Influence of FDR (X4) on ROA (Y)**

The testing results for H4 indicate that FDR has a significant positive influence on the projected financial performance measured by ROA. The obtained significance value is 0.006, which is smaller than 0.05, and the regression coefficient for FDR is 0.013. This means that an increase in FDR significantly contributes to financial performance. As the FDR level increases, the financial performance measured by ROA tends to improve.

Increasing liquidity in Islamic banks indicates the bank's ability to meet financing demands under favorable conditions. In this context, Islamic banks have the ability to provide financing to customers while ensuring the bank's obligation to meet customer demands for fund withdrawal, which were previously used for financing purposes, remains intact.

These findings are consistent with the findings of Sholikha Oktavi K. (2016), but inconsistent with the previous findings by Hutomo Mandala Putra (2020), which indicated a negative influence of NPF on ROA.

**The Influence of BOPO Financing (X5) on ROA (Y)**

The testing results for H5 indicate that BOPO has a significant negative influence on the projected financial performance measured by ROA. The obtained significance value is 0.000, which is smaller than 0.05, and the regression coefficient for BOPO
is -0.114. Thus, it can be interpreted that an increase in BOPO contributes negatively to financial performance. As the BOPO level increases, the financial performance tends to decline.

In the projection of financial performance, BOPO plays a crucial role in ROA. However, during the research period, many banks did not comply with the BI standards regarding BOPO. BI has set a limit of 90% for BOPO in Islamic banks. If the BOPO level approaches or exceeds 100%, the bank is considered inefficient in its operations. During the period of 2014-2019, the average BOPO level remained above 90%, even exceeding 100%. However, in the period of 2020-2021, the average BOPO level showed increased efficiency, with many banks successfully reducing the BOPO level below 90%. Therefore, Islamic banks need to increase their operational income and reduce operational costs to avoid losses due to inefficient business management.

LIMITATIONS

The financial ratios used to estimate the financial performance of banks only involve a limited number of factors, including CAR, NPF, FDR, BOPO, and Qardhul Hasan Financing.

FUTURE RESEARCH AGENDA

1. Based on the obtained analysis results, it is recommended for management to enhance ROA by increasing operational income, improving cost efficiency, and appropriately reducing NPF levels. These findings provide additional information and important considerations for Islamic banking companies in Indonesia when making decisions regarding their financing policies.
2. For future research, it is suggested to include additional variables such as ROE, EPS, PER, CR, and QR. This will provide a more comprehensive understanding of other factors that influence the financial performance of Islamic banks in Indonesia from an academic perspective.

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