ABSTRACT: This study aimed to examine the impact of financial performance expressed in ROA and NPF on financial sustainability with institutional ownership as a moderating variable for Islamic banks in Indonesia. Quantitative research is used in this study using related methods. The research target is all Islamic commercial banks in Indonesia registered with the Financial Services Authority (OJK). Sampling used the purposive sampling method and resulted in nine Islamic commercial banks in Indonesia. The data in this study is secondary data in the form of annual financial reports from 2015 to 2019. Panel data regression analysis was used with SPSS version 25 software for data analysis. The results showed that ROA had a significant positive effect on financial sustainability. And, NPF has a significant negative impact on financial sustainability. Meanwhile, institutional ownership weakens the relationship between ROA and financial sustainability and does not have a moderating role in the relationship between NPF and financial sustainability. The coefficient of determination test shows that ROA, NPF, and the moderating role of institutional ownership can explain the 75.6% relationship on financial sustainability.


1. INTRODUCTION

Currently, Islamic banking has been recognized by the world and is seen as an alternative system that offers solutions in the banking sector. Islamic banking was developed to meet the needs of the Muslim community for sharia services. The concept of Islamic banking has been recognized and continues to grow along with the increasing Muslim population. Referring to the census data shown by Global Religious Future, it is estimated that the Muslim population in Indonesia will continue to increase. The Muslim population in Indonesia in 2020 will reach around 229.62 million, and in 2050 it is expected to continue to grow to 256.82 million people (Musaif & Adityawarman, 2020).

The rapid development of Islamic banks must be directly proportional to the performance of Islamic banks. The performance of Islamic banks can be measured using indicators of bank operational efficiency, bank portfolio quality, and sustainable performance (Andriyan, 2016). Financial sustainability measures disclose and calculate organizational performance to achieve sustainable development for internal and external stakeholders (Nasfi, at al. 2019). Meanwhile, Zabolotnyy & Wasilewski (2019) and (Fauziah et al., 2020) say that financial sustainability must be maintained or extended services within the organization while developing resilience to economic shocks in the short term. One of the benefits of financial sustainability is controlling the achievement of a company's work as a decision-making tool for investors and stakeholders. Financial sustainability is important to determine the possibility of going concerning Islamic banks (Uddin & Ahmmed, 2018).

Although many studies have been conducted to analyze the correlation between corporate performance and corporate sustainability, there is still a lack of research that focuses on evaluating financial sustainability at the corporate level (Diantimala, 2018). Moreover, the importance of corporate governance factors for this relationship is still under investigation (Peng & Yang, 2014). Studies related to the moderating role of corporate governance are still unclear (Harjoto & Jo, 2011). This study focuses on one aspect of corporate governance: the type of ownership in Institutional Ownership (IO). It investigates how institutional ownership as a moderator will affect the relationship between financial performance and financial sustainability.

2. LITERATURE REVIEW

2.1 Financial Sustainability

In their book, Brigham & Houston (2011) reveal that signaling theory is an action taken by company management to provide instructions to investors on how management views a company's prospects. The main purpose of corporate disclosure is
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to inform analysts and investors about the quality and value of the company (Hamrouni et al., 2015). In financial reporting, all policymakers want the company to be able to provide revenue targets to maintain its existence. The company’s high profit will increase the resulting equity to increase sustainable growth (Amouzesh, 2011). Financial sustainability is one of the important ratios to be considered by companies. Financial sustainability is used to predict and evaluate the company’s operations in maintaining its existence in the long term by increasing returns (Oktavianingsih, 2016); (Septi & Pangestutri, 2016). However, asymmetric information is often found in the company’s disclosure efforts. Asymmetric information creates debates that lead to disputes. This dispute will cause agency costs (Budiarti & Sulistyowati, 2016). Agency costs can arise because of the monitoring mechanism implemented to minimize agency conflicts (agency problems). If the agency problem in a company is large, then the budgeted agency cost is also large. However, these agency costs can be reduced by creating an ownership structure that will divide the boundaries of power and supervision, which is expected to reduce agency conflicts due to differences in interests and goals between managers and shareholders (Paulus, 2017).

2.2 Financial Performance

Financial performance is related to financial ratios, which are company performance analysis instruments that explain various financial relationships and indicators in past conditions and help describe the trend of these changing patterns and then show the risks and opportunities inherent in the company concerned (Aisyah, 2015a). One of the financial ratios used is the profitability ratio with the ROA proxy. ROA is the proxy that gives the largest contribution to financial performance (Aisyah & Pratikto, 2022). Next is the NPF (Non-Performing Financing) ratio, which shows the collectability of financing included in the substandard, doubtful, and non-performing financing criteria. NPF is an indicator of the health of a bank’s asset quality in managing financing distribution. Non-Performing Financing (NPF), or non-performing financing, is one of the key indicators to assess bank performance. If non-performing financing increases, the risk of a decline in profitability is even greater. Suppose profitability decreases, the bank’s ability to expand financing decreases, and the rate of financing decreases (Aisyah, 2015a).

2.3 Hypothesis

2.3.1 ROA and Financial Sustainability

Return on assets (ROA) is a relevant indicator of profitability used by Islamic commercial banks because the total assets are mostly sourced from customers (third-party funds). ROA has a significant impact on financial sustainability in several previous studies such as research (Sholikah & Miranti, 2020); (Saputri, 2019); (Notoadmojo & Rahmawaty, 2017); Wahyuni & Fakhruddin, 2014; (Saputro & Purwanto, 2013); (Amouzesh, 2011). Meanwhile, research conducted by (Pham et al., 2021); (Puspitasari, 2019); (Wafu et al., 2016); (Oktavianingsih, 2016); (Sarwono, & Sunarko, 2015; Almilia et al., 2009) shows that ROA does not affect financial sustainability. ROA, which has a significant positive effect, indicates that the bank has made a profit and is more efficient in managing its assets. Banks can use this large profit to prepare for the sustainability of their companies in the future.

H1: ROA has significant effect on financial sustainability

2.3.2 NPF and Financial Sustainability

NPF is an indicator that can identify the risk of non-performing funds. Based on previous research, there are conflicting results regarding the impact of NPF on financial sustainability. Findings (Saputri, 2019; Notoadmojo & Rahmawaty, 2017; Almilia et al., 2009) indicate that a negative NPF significantly affects FS. The research conducted by (Sarwono & Sunarko, 2015; Wahyuni & Fakhruddin, 2014; Oktavianingsih, 2016) found that NPF did not affect FS. NPF has a negative effect, meaning that when the growth of non-performing loans is high, the number of loans is large, so the total losses of large banks impact the income of small companies. The company's low income also results in a decline in the company's sustainability level.

H2: NPF has significant effect on financial sustainability

2.3.3 The Moderating Role of Institutional Ownership

Institutional ownership is part of the ownership structure where the owner only serves as a monitor while the manager is the manager. This separation of powers is expected so that the manager is not arbitrary in managing the company because it is monitored by the owner so that the company's profit will increase. However, in institutional ownership, there are often differences in interests between managers and shareholders, which will lead to problems related to the agency (agency problems), namely issues that arise between the principal and the agent, which can result in unwanted and unnecessary costs. Exist in the functional activities of the company because it is regulated and controlled by the owner, which is called agency costs or expenses. Due to agency costs, the company’s profitability will automatically decrease, which will impact the company’s sustainability. This theory is approved by research conducted by Sarah Ahmed (2020), which shows that institutional ownership can have a negative impact on the company's financial sustainability. Therefore, from the theory that explained the previous results, the hypotheses formulated in this study are as follows:
H3: Institutional ownership moderates the relationship between ROA and financial sustainability.
H4: Institutional ownership moderates the relationship between NPF and financial sustainability.

3. METHOD
The research method used is quantitative research with a correlational approach. Islamic Commercial Banks registered with the OJK as the research population and then used purposive sampling to draw samples. The criteria for selecting the research sample are: (1) Sharia Commercial Banks (BUS) that are still operating in Indonesia during the 2016-2021 observation period, (2) There is no change in the form of business entity and conduct business consolidation (mergers, acquisitions or mergers) during the observation period 2016-2021, (3) There is complete information data to measure financial performance, financial sustainability, and institutional ownership based on the financial publication reports of Islamic banks during the 2015-2019 period. Based on these criteria, there are 9 samples of Islamic Commercial Banks that meet the criteria, namely Bank BTPN Syariah, Bank Panin Dubai Syariah, Bank Aladin Syariah, Bank Muamalat, Bank Bukopin Syariah, Bank Aceh Syariah, Bank NTB Syariah, Bank Banten Jabar Syariah, and Bank BCA Syariah.

Furthermore, there are four independent variables (X) in this study, namely:

1) Financial Sustainability (Y)
Financial sustainability is measured using the Higgins model formula using a combination of ROE ratio and Dividend Payout Ratio (Rahim, 2017). Therefore, the procedure for the calculation is as follows:

\[
SGR = ROE (1 - DPR) \\
ROE = \text{Return on equity}, \quad DPR = \text{Dividend payout ratio}
\]

2) ROA (X\textsubscript{1})
Return on assets (ROA) is the company's ability to use its assets to generate profits (Kurniasari, 2017). This ratio measures the return on investment made with all funds (assets) owned by the company. To calculate the ROA ratio using the following formula (Rani, 2017):

\[
ROA = \frac{\text{Profit Before Tax}}{\text{Total Assets}} \times 100\%
\]

3) NPF (X\textsubscript{2})
Financing risk reflects the funding problem of Islamic banks. Non-Performing Financing (NPF) is often used as a parameter of financing risk by comparing the ratio of total non-performing financing to financing allocation. Based on OJK Circular Letter Number 10 of 2014, the calculation of Non-Performing Financing uses the following formula:

\[
NPF = \frac{\text{Total Non-performing Financing}}{\text{Total Financing}} \times 100\%
\]

4) Institutional Ownership (Z)
Institutional ownership is the total number of company shares owned by mutual funds or pension funds, insurance companies, investment companies, private institutions, waqf, or other large companies (Sarah Ahmed, 2020). The calculation formula is:

\[
I_{O} = \frac{\text{Total Shares Owned by Institution}}{\text{Total Outstanding Shares}} \times 100\%
\]

This study uses secondary data from the 2015-2019 Islamic Commercial Bank Annual Report with documentation techniques for data collection. The data analysis technique used panel data regression analysis using SPSS software with the following regression equation:

\[
Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 * Z + \beta_4 X_2 * Z + \epsilon
\]

Description:

- **Y** = Financial Sustainability
- **\alpha** = constant
- **\beta_1, \beta_2** = Regression coefficient
- **X_1** = ROA
- **X_2** = NPF
- **Z** = Institutional Ownership (IO)
- **\epsilon** = Standard Error
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4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The sample in this study used a purposive sampling technique from a total population of 14 Islamic commercial banks. There are nine research samples selected. This data was obtained from the website of each Islamic bank.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>45</td>
<td>0.00</td>
<td>2.12</td>
<td>1.5176</td>
<td>0.32080</td>
</tr>
<tr>
<td>X1</td>
<td>45</td>
<td>0.00</td>
<td>1.54</td>
<td>1.0779</td>
<td>0.26816</td>
</tr>
<tr>
<td>X2</td>
<td>45</td>
<td>0.00</td>
<td>2.36</td>
<td>2.2757</td>
<td>0.35398</td>
</tr>
<tr>
<td>X1Z</td>
<td>45</td>
<td>0.00</td>
<td>3.53</td>
<td>2.9909</td>
<td>0.52058</td>
</tr>
<tr>
<td>X2Z</td>
<td>45</td>
<td>0.00</td>
<td>3.64</td>
<td>3.5080</td>
<td>0.54665</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

4.2 Normality Test

According to Ghozali (2018), the normality test tests whether the independent and dependent variables are normally distributed in the regression model. The Kolmogorov-Smirnov test has criteria for data to be normally distributed if the probability value (sig) > 0.05, but if the probability value (sig) < 0.05, then the data is not normally distributed. If the Kolmogorov-Smirnov test fails, then the Monte Carlo method is transferred as an alternative to the normality test with systematic development using random numbers. The purpose of Monte Carlo is to test research data with random or extreme samples to determine the normality of the data.

Table 2. Normality Test

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Statistic</td>
<td>0.196</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.001c</td>
</tr>
<tr>
<td>Monte Carlo Sig. (2-tailed)</td>
<td>0.086d</td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
</tr>
<tr>
<td>99% Confidence Interval</td>
<td></td>
</tr>
<tr>
<td>Lower Bound</td>
<td>0.078</td>
</tr>
<tr>
<td>Upper Bound</td>
<td>0.093</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

From the results of the table above, it is known that the value of asymp.sig (2-tailed) shows 0.001 < 0.05, so the data is not normally distributed. This research was transferred by using the Monte Carlo method. After the normality test using Monte Carlo, the sig value is 0.086 > 0.05, so it can be concluded that the research data is normally distributed.

4.3 Multicollinearity Test

The multicollinearity test tests whether there is a relationship between the independent variables (Aisyah, 2015). According to Ghozali (2018), the multicollinearity test helps try whether the regression model correlates with the independent variables. A good regression model is a model that does not correlate with independent variables. The multicollinearity test proved the tolerance and Variance Inflation Factor (VIF) values. If the VIF value is < 10, then the data does not occur multicollinearity (Ghozali, 2018).

Table 3. Multicollinearity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
</tr>
<tr>
<td></td>
<td>X1</td>
</tr>
<tr>
<td></td>
<td>X2</td>
</tr>
<tr>
<td></td>
<td>X1Z</td>
</tr>
<tr>
<td></td>
<td>X2Z</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022
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The results of the data above show that the VIF value of each independent variable is less than 10 (VIF <10). Therefore, it can be concluded that there is no multicollinearity.

4.4 Autocorrelation Test

The linear regression model was tested using the autocorrelation test, which tests whether the regression model has a correlation error in period t with a mistake in period t-1 (previous). A good regression model is an autocorrelation-free regression (Ghozali, 2018). The autocorrelation test was carried out with Durbin Watson with the following results:

Table 4. Autocorrelation Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.150</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

The Durbin-Watson value based on the table above is 2150. Based on the table DW %, it is known that the value of dU = 1.66618. This shows that the data does not have autocorrelation because of the value of Durbin-Watson dU (1.66618) < DW (2.150) < 4-dU (2.33382).

4.5 Heteroscedasticity Test

The heteroscedasticity test tests whether there is an inequality of variance between one observer and the residuals of another observer. A good regression model does not show symptoms of constant variance (Ghozali, 2018). The Glejser test consists of regression of the absolute value of the independent residual variable. If the significance value is > 0.05, the regression model is considered not to have heteroscedasticity.

Table 5. Heteroscedasticity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>0.056</td>
</tr>
<tr>
<td>X1</td>
<td>0.077</td>
</tr>
<tr>
<td>X2</td>
<td>0.962</td>
</tr>
<tr>
<td>X1Z</td>
<td>0.072</td>
</tr>
<tr>
<td>X2Z</td>
<td>0.721</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

Based on the table above results, the data does not occur heteroscedasticity because the value of Sig. of all independent variables is above 0.05. Therefore, it can be concluded that there is no heteroscedasticity.

4.6 Hypothesis Test (F-test)

The results of the simultaneous test of this study are as follows:

Table 6. Simultaneous Test

<table>
<thead>
<tr>
<th>Model</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression Total</td>
<td>31.053</td>
<td>0.000b</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

Ferdinand (2014) stated that he used the F-test to see the feasibility of the regression model. The feasibility of the regression model is used as a reference that the model can explain the effect of the independent variable on the dependent variable. Determination of the feasibility of the model is seen through the ANOVA table on the value of Sig. which states that the regression model is feasible if the value is less than 0.05.

Based on the table above, it is known that the value of Sig. 0.000<0.005. So that all independent variables in the form of ROA (X1), NPF (X2), ROA*Institutional Ownership (X1Z), and NPF*Institutional Ownership (X2Z) simultaneously affect financial sustainability.
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4.7 Tes Hipotests (t-test)

The results of the partial test of this study are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.907</td>
<td>0.285</td>
<td>6.693</td>
<td>0.000</td>
</tr>
<tr>
<td>X1</td>
<td>2.489</td>
<td>0.261</td>
<td>9.548</td>
<td>0.000</td>
</tr>
<tr>
<td>X2</td>
<td>-0.281</td>
<td>0.077</td>
<td>-3.642</td>
<td>0.001</td>
</tr>
<tr>
<td>X1Z</td>
<td>-0.872</td>
<td>0.127</td>
<td>-6.844</td>
<td>0.000</td>
</tr>
<tr>
<td>1 X2Z</td>
<td>0.050</td>
<td>0.049</td>
<td>1.020</td>
<td>0.314</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

T-test has been used to determine each independent variable from the dependent variable. If t count > t table or significant value of t-test < 0.05, the independent variable significantly affects the dependent variable (Ghozali, 2018). Based on the data above shows that the value of sig. ROA (X1) is 0.000 <0.005, which means ROA has a significant positive effect on financial sustainability. At the same time, the NPF (X2) t-test value is 0.001, which means that the NPF has a significant negative impact on financial sustainability. The moderating variables in the form of institutional ownership (X1Z) and (X2Z) have t-test values of 0.000 and 0.314, respectively, which means that institutional ownership (X1Z) significantly weakens the relationship between ROA (X1) and financial sustainability (Y). Meanwhile, institutional ownership (X2Z) does not significantly moderate the relationship between NPF (X2) and financial sustainability (Y).

4.8 Determination Test

The results of the determination test of this study are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.870*</td>
<td>0.756</td>
<td>0.732</td>
</tr>
</tbody>
</table>

Source: SPSS25 output, 2022

The coefficient of determination test aims to see how well a model can explain the dependent variable. The coefficient of determination is the R-Squared value (Ghozali, 2018). The R-Squared value in the table above is 0.756. The conclusion is that the independent variables ROA (X1) and NPF (X2) can explain the financial sustainability variable of 75.6%.

4.9 Interpretation Model

\[ Y = 1.907 + 2.489 \times X_1 - 0.281 \times X_2 - 0.872 \times X_1Z + 0.050 \times X_2Z + 0.166 \]

The ROA ratio (X2) positively affects financial sustainability with a regression coefficient of 2.489. When the ROA variable increases by 1%, financial sustainability will increase by 2,489%. The effect of this positive relationship shows that ROA determines the level of the company's sustainable ability. The size of the ROA value has an impact on financial sustainability. If the ROA value is small, it shows that the bank is not good at managing its assets in generating profits, resulting in a decrease in the company's sustainability capability (Saputri, 2019).

The NPF ratio (X2) has a regression coefficient of -0.281, which significantly negatively affects financial sustainability. If the NPF variable increases by 1%, then financial sustainability decreases by 0.281%. This negative relationship shows that the lower the NPF score, the higher the company's sustainability, or the higher the NPF score, the lower the company's sustainability. When the growth of non-performing loans is high and the number of loans is large, the total losses borne by large banks, the company's profits decline, which results in the company's sustainability which will also be decreasing (Saputri, 2019).

The moderating variable in the form of institutional ownership (X1Z) is significantly negative, moderating the relationship between ROA (X1) and financial sustainability (Y) with a regression coefficient of -0.872. This result is different from the ROA test on financial sustainability before being given a moderating variable. The ROA variable (X1), moderated by institutional ownership, significantly negatively affects financial sustainability. Because institutional ownership raises agency costs, the company's profitability will automatically decrease, which will impact the company's sustainability (Sarah Ahmed, 2020).
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The moderating variable in the form of institutional ownership (X2Z) does not significantly moderate the relationship between NPF (X2) and financial sustainability (Y) with a regression coefficient of 0.050. That institutional ownership cannot weaken or strengthen the relationship between NPF and financial sustainability.

5. CONCLUSION

This research concludes that ROA and NPF variables simultaneously affect financial sustainability. ROA has a significant positive effect on financial sustainability partially. And NPF partially has a significant negative impact on financial sustainability.

Institutional Ownership (X1Z) negatively moderates the relationship between ROA and financial sustainability. Institutional Ownership (X2Z) does not moderate the relationship between NPF and financial sustainability.

This study has limitations in the number of objects and independent variables used. Further research is recommended to add wider research objects such as Islamic People's Financing Banks and Sharia Business Units and use a more extended research period to obtain more accurate results. In addition, add other internal or external company variables related to financial sustainability to provide more diverse information.

REFERENCES

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