The Moderating Role of Profitability in The Relationship Liquidity and Leverage on Financial Distress in Islamic Banking

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Abstract: The purpose of this study is to examine the role of profitability in moderating the relationship between liquidity and leverage on financial distress in Islamic banking. This study uses a quantitative descriptive approach, and the panel data analysis method is implemented using E-views 12. The sample Islamic banking companies listed on The Financial Services Authority (OJK) for a period of four years, namely the 2021-2024 period. The sampling technique employs purposive sampling to collect company data that matches the specified criteria. The results showed that the liquidity ratio does not have a significant effect on financial distress, while leverage has a significant effect on financial distress. Profitability is unable to moderate the relationship between the liquidity ratio and financial distress, but profitability is able to moderate the relationship between leverage and financial distress. The implications of this study help to understand the development and performance of the companies studied and can be used as input and consideration for companies in taking steps to prevent bankruptcy.

Introduction

The Islamic banking industry is growing rapidly as an alternative financial system based on Sharia principles, it prohibits *riba, gharar* (excessive uncertainty), and *masyir* (speculation). Nevertheless, Islamic banks still face serious challenges, including the potential for financial distress, which can undermine operational stability and public trust. Unlike conventional banks, financial distress in Islamic banks is more closely related to the quality of financing, which limits banks' flexibility in dealing with short-term financial pressures. Islamic banking plays a strategic role in supporting economic growth while providing an alternative financial system based on Sharia values. At the end of 2022, the total assets of the Islamic financial sector reached IDR 2,375.84 trillion, an increase of 15.87% compared to 2021, contributing approximately 33.77% of the total, with an asset growth rate of 15.63% (Otoritas Jasa Keuangan, 2022).The main challenges faced are Sharia compliance, limited Sharia financial

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instruments, and competition from conventional banks, which generally have advantages in scale, technology, and cost efficiency. Therefore, Islamic banks are required to remain competitive and innovative to compete in the global banking industry.

The bankruptcy of BPRS ASRI Madani Nusantara in Jember in 2021 is clear evidence that Islamic banking still faces serious challenges in managing risk. The Financial Services Authority (OJK)revoked its business license after discovering various violations that resulted in customers experiencing difficulties in disbursing their savings due to the bank's inability to operate healthily (OJK, 2022). This situation demonstrates that liquidity risk and weak internal supervision can be key factors in the bankruptcy of Islamic banks.

Bankruptcy itself can occur when a company experiences financial distress or financial difficulties. A company's financial distress can be seen through several indicators, namely a prolonged decline in selling volume which hurts short-term cash flow and liquidity, the frequent occurrence of short-term debt, interest payments, and loan principal instalments that fail to pay off, as well as prolonged negative profits and can have an impact on bankruptcy (Hidayah & Prasetiono, 2016; Sehgal et al., 2021) An indication of a company experiencing financial distress can be seen from the contents of the financial statements issued by the company. The financial statements issued by the company are a source of information regarding the company's financial position or company performance and are very supportive in making the right decisions (Hazami-Ammar & Gafsi, 2021; Uğurlu & Aksoy, 2006). Profitability plays a crucial role in maintaining the stability of Islamic banking, as generated profits reflect a bank's ability to cover operational costs while fulfilling its profit-sharing obligations to customers. High profits signal positive financial health and reduce the risk of financial distress. Therefore, profitability serves as a preventative measure in detecting potential financial difficulties in Islamic banking. The financial distress company needs to be known as early as possible. This is because financial distress will have an impact on decreasing company performance and also hurt stakeholders (Duong et al., 2025).

The financial distress of a company can be influenced by financial ratios. Financial ratios are a financial analysis tool to assess the performance of a company by comparing the data in the financial statements. Researchers chose to use liquidity and leverage ratios in this study because these two ratios are considered the most significant for predicting financial distress (Aydin et al., 2022; Hassan et al., 2024; Shahwan, 2015a; Zaki et al., 2011). Liquidity and leverage are ratios related to the company's debt. Most of the companies experiencing financial distress are always related to their ability to pay debts. Much research has been done on the effect of liquidity and leverage on financial distress, but the results are inconsistent. Based on research conducted Luh et al., (2015) liquidity hurts financial distress while leverage does not affect financial distress. On the other hand, the research conducted (Andre, 2013;Ugur et al., 2022) states that liquidity does not affect financial distress, while leverage affects financial distress. Other studies have also been conducted Younas et al., (2021)and Lagasio et al., (2023) stating that liquidity has a positive effect on financial distress while the leverage ratio has a positive effect on financial distress.

The Islamic banking sector has unique characteristics compared to conventional banking. As a financial institution operating under Sharia principles, it prohibits *riba, gharar* (excessive uncertainty), and *masyir* (speculation). This uniqueness presents a different dynamic in the relationship between liquidity, leverage, and financial distress due to its unique characteristics: *riba*-free, profit-sharing-based, and founded on the principles of fairness and sustainability.

The purpose of this study is to examine the role of profitability moderating the relationship between liquidity and leverage on financial distress in Islamic banking companies listed on The Financial Services Authority (OJK) for the period 2021-2024. A high level of profitability provides a positive signal to stakeholders that the bank has healthy performance, so that the negative impact of low liquidity or high leverage on financial distress can be minimized. The importance of this research is that it can help understand the development and performance of the companies studied, can be input and consideration for companies in taking steps to prevent bankruptcy, and can be used as consideration in making investment decisions for investors. The results of this study are expected to contribute and be useful for the development of science as a source of reference and additional information for further research related to this study.

Literature Review and Hypothesis Development

Signaling Theory
Signaling theory is used in this study as a grand theory. The signal given by the company should be able to capture properly so that it can be interpreted correctly Kharouf et al., (2020). A lot of information from companies can be used as a signal. This information is contained in the annual report, which contains relevant accounting information and presents all useful information for report users. The financial condition of Islamic banks is reflected through liquidity, leverage, and profitability indicators, each of which provides signals to investors and customers. In the context of Islamic banks, signaling theory emphasizes the importance of transparency and quality financial information as a means of maintaining public trust and preventing bankruptcy.

Financial distress
According to Amoa-Gyarteng, (2021) is a situation when the company's finances are experiencing a decline before bankruptcy occurs. Financial distress in this study is proxied by the interest coverage ratio (ICR), the company's operating profitability to pay its annual interest. Since Islamic banks do not recognize interest, the interest expense component in the financial ratio is adjusted to reflect the sharia financial expense, namely the total share of profit sharing (*mudharabah, murabahah*, and *ijarah*) paid by the bank to third parties. Thus, the ratio used remains consistent in measuring the bank's ability to meet its financial obligations.

Liquidity
According to (Indriani & Mildawati, 2019) liquidity is a company's ability to generate cash in the short term to meet obligations and the reason for the widespread use of the current ratio. The use of this ratio is to determine the company's ability to finance its debts when billed. Liquidity in this study is proxied by the current ratio (CR) because when it has a high current ratio, the company has a great ability to meet its short-term debt. Liquidity management in Islamic banks is more complex because it must adhere to the principles of prohibition on *riba, gharar* (excessive uncertainty), and *masyir* (speculation). This makes Islamic banks vulnerable to the risk of sudden withdrawals by customers. Therefore, liquidity management in Islamic banks requires a balance between maintaining fund availability and optimizing financing based on Islamic contracts.

Leverage
According to Click or tap here to enter text.Lee et al., (2011) is a ratio that serves to show the company's ability to finance all short-term or long-term debt. Leverage arises due to the use of company funds from third parties in the form of debt; therefore, it requires the company to repay the loan on time. In this study, leverage is proxied by the debt ratio (DR). The selection of the debt ratio as a measuring tool is because the researchers assume that using this debt ratio can show how much the proportion of a company's debt is to total assets. The high or low debt ratio of the company will affect the size of the risk that will be borne by the company.

Profitability
According to Ramadhani & dan Kuswantoro (2018) is the company's ability to generate profits in a certain period. Profitability ratios in this study are measured using return on assets (ROA). ROA was chosen as a measuring tool because researchers think that ROA can describe how much a company's assets are used to generate profits. This low ratio shows that the ability of the company's assets is less productive in generating profits, this condition will cause financial distress.

The Impact of Liquidity Ratio on Financial Distress
The liquidity ratio measures a company's ability to meet current debt using current assets. The higher the current assets owned by the company, the company can pay its debts on time. Conditions like this can prevent the company from the threat of financial distress. Previous research conducted (Rahman et al., 2023; Shahwan, 2015a; Younas et al., 2021) states that liquidity hurts financial distress. This opinion is also supported García & Herrero, (2021) who state that liquidity hurts financial distress. Because the

higher the current assets owned by the company, the greater the company's ability to pay current liabilities. The hypothesis formulated in this study is as follows:

H1: Liquidity ratio has a negative effect on financial distress

The Impact of Leverage on Financial Distress

Leverage shows how much the company's assets are financed by debt. Companies that have a large leverage ratio value, have a greater possibility of experiencing financial distress. Previous research was conducted (Andre, 2013; Mehmood & De Luca, 2023) that leverage affects financial distress. This opinion is supported (Al-Dhamari et al., 2023; Ugur et al., 2022) who states that leverage has a positive effect on financial distress. The greater the leverage, means that the company has many liabilities that are not supported by the company's total assets, so the probability of the company experiencing financial distress is also greater. The hypothesis formulated in this study is as follows:

H2: Leverage has a positive effect on financial distress.

Profitability moderates the relationship between liquidity ratio and financial distress

Profitability is used as moderation in this study because the company's profits serve as a source of internal funding that can strengthen its financial position. A high level of profitability provides Islamic banking with the capacity to meet its financial obligations without relying on external funding. Companies that do not earn profits will use their assets to fund operational activities to pay off the company's debts. If the company's assets are insufficient, debt payments will be delayed, and can experience financial distress. Based on research conducted (Putri & Naibaho, 2022) states that liquidity affects the prediction of financial distress and the value of the coefficient b is negative. And research from Shahwan, (2015b) profitability ratios have a negative effect on the possibility of financial distress. Based on this description, temporary assumptions can be made as follows:

**H3: Profitability can moderate the relationship between liquidity ratio on financial distress.**

P*rofitability moderates the relationship between Leverage and financial distress*

The inclusion of this moderating variable is also substantiated by the disparities in empirical research regarding the impact of liquidity ratio and leverage on the dependent variable, which is financial distress. So based on the contingency theory this study adds a combination of variables by adding a moderating variable. According to research Rahman et al., (2023) and Affiah, (2018) variable profitability can moderate the relationship between leverage and financial distress. The variable profitability can strengthen the effect of the variable liquidity and leverage on financial distress, a positive sign on the coefficient which states that the variable strengthens the effect of leverage on financial distress, this is caused by every profit the company gets to pay its obligations, the profit earned will be used for operations company so that the company's obligations are not paid on time, and there will be a condition of financial distress in the indicated company.

H4: Profitability can moderate the relationship between leverage and financial distress.

Research Framework

Based on the background, theoretical basis and hypotheses that have been compiled. The following will describe the theoretical framework of this research.
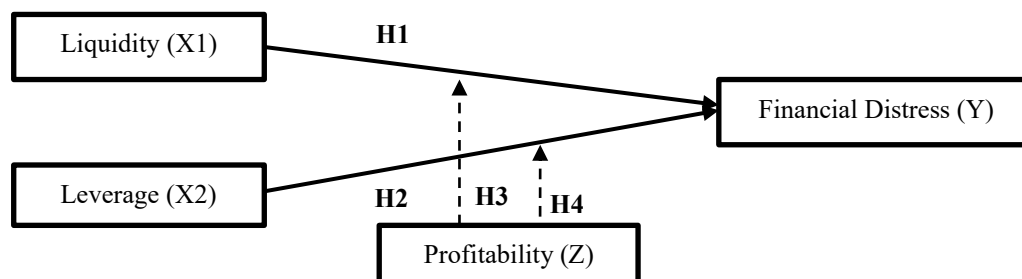
Figure 1. Research Framework

Method

Data and Sample

This research is a quantitative causal study, aiming to test the influence between theoretically determined variables. The data used is panel data, allowing for a more comprehensive analysis of the dynamics of Islamic banking performance over time, as well as differences between banks. in this study uses secondary data in the form of annual report results. The population used is all Islamic banking companies listed on The Financial Services Authority (OJK). The population to be sampled is selected intentionally based on certain characteristics according to the required criteria because the number of samples is relatively limited in order to produce representative samples and focus on appropriate units of analysis in the context of Islamic banking in Indonesia. The sample in this study is Islamic banking companies listed on The Financial Services Authority (OJK) for a period of four years, namely the period 2021-2024. The sample in this study was taken based on the following:

1. Islamic banking companies listed on The Financial Services Authority (OJK) during the 2021-2024 observation period.
2. Islamic banking companies present complete annual financial report data, especially for the 2021-2024 period.
3. Companies that have an ICR value>1.

Operational Definition and Measurement

1. **Financial Distress**. Financial distress measured using the interest coverage ratio (ICR), the ability of the company's operating income to pay its annual interest. Islamic banking does not charge interest but profit sharing, for interest charges it is adjusted to the total share of profit sharing (*mudharabah, murabahah,* and *ijarah*) paid by the bank to third parties. Companies with an ICR value below 1 are marked as experiencing financial distress (Younas et al., 2021)Interest coverage ratio (ICR) in this research will be measured using the formula formulated as follows:

$$Interest\ Coverage\ Ratio = \frac{EBIT}{Sharia\ financial\ expenses}$$

2. **Liquidity**. Liquidity measured using the current ratio. According to Andre, (2013), the current ratio is a ratio that shows a company's ability to finance its current debts using its current assets. When having a high current ratio value, the company has a greater ability to meet its short-term debts. The current ratio in this research will be measured using the formula formulated (Andre, 2013)as follows:

$$Current\ Ratio = \frac{Current\ Asset}{Current\ Liability}$$

3. **Leverage**. Leverage measured using the debt ratio. According to (Indriani & Mildawati, 2019)the debt ratio is the comparison between short-term and long-term debts with the total assets of the company. The debt ratio in this research will be measured using the formula formulated (Indriani & Mildawati, 2019),as follows:

$$Debt\ Ratio = \frac{Total\ debt}{Total\ Assets}$$

4. **Profitability**. Profitability measured using Return on Assets (ROA). ROA is chosen as a measurement tool because it can show how much a company uses its assets to generate profit. A low ratio indicates that the company's asset productivity in generating profit is low, which can lead to financial distress. ROA in this study will be measured using the formula formulated Affiah, (2018) as follows:

$$Return\ on\ Asset = \frac{Earning\ After\ Tax}{Total\ Asset}$$

Model Analysis

The data analysis technique in this study uses Moderated Regression Analysis (MRA). MRA can directly measure the effects of interactions between variables and the role of moderating variables in strengthening or weakening those relationships. Compared to conventional regression methods, MRA excels in identifying the contextual role of moderating variables without requiring overly complex analytical models. The application used to process research data is E-views version 12.

The panel data regression model equation is as follows:

$$Yit = α + β1X1it + β2X2it + β3X3it + β1X1itZ + β2X2itZ + β3X3itZ + Ɛit$$

Where:

Y	= Financial distress
α	= constant (intercept)
$β_1$, $β_2$	= regression coefficients
X_1	= liquidity ratio
X_2	= leverage
$X_{1it}Z$	= interaction between liquidity ratio and profitability
$X_{2it}Z$	= interaction between leverage and profitability
Z	= profitability
Ɛ	= errors

Analysis and Discussion

Descriptive Analysis

The following are the results of the descriptive statistical to provide a description of the sample being tested:

Table 1. Description Statistics Result

	CR	DR	ROA	FD
Mean	2.824	0.387	10.772	-48.814
Median	2.205	0.395	9.645	-44.685
Maximum	8.640	0.630	42.380	-5.460
Minimum	0.780	0.140	0.780	-151.620
Std. Dev.	2.101	0.150	8.480	33.385
Observations	52	52	52	52

Source: E-views 12 output processed

Table 1 shows the descriptive statistics of the sample tested. The number of samples tested was 52 samples according to the population and research sample criteria. The liquidity variable (CR) has a maximum value of 8.640, a minimum value of 0.780, and a mean value of 2.824. These results show that in general the Islamic banks in the sample have quite good liquidity capabilities. Then the leverage variable (DR) has a maximum value of 0.630, a minimum value of 0.140, and a mean value of 0.387 which shows that most Islamic banks are relatively conservative in their use of debt. The financial distress variable (FD) has a maximum value of -5.460, a minimum value of -151.620, and a mean value of -48.814 which shows that there are Islamic banks in the sample that are in a state of quite serious financial difficulties, although some others are relatively more stable. The profitability variable (ROA) as a moderating variable has a maximum value of 42.380, a minimum value of 0.780, and a mean value of 10.772 which indicates that there are significant differences in the level of profitability between banks in the sample.

Panel Data Regression Model Selection

Panel data regression uses three approaches, namely common effect, fixed effect, and random effect. The choice of the approaching model depends on the assumptions used by the researcher and the fulfillment of the correct statistical data processing requirements so that they can be statistically accounted for. Therefore, the first step in testing panel data regression is to choose a model from the three approach models. After the results of the common effect and fixed effect models were obtained,

the chow test was then carried out. The chow test is needed to choose the most appropriate model between the common effect and fixed effect models.

The chow test hypothesis is:

H0: *common effect model* (pooled OLS)

H1: *fixed effect model* (LSDV)

If the probability value for the cross-section F > 0.05 then the null hypothesis is accepted, meaning that the right model for panel data regression is the common effect and otherwise.
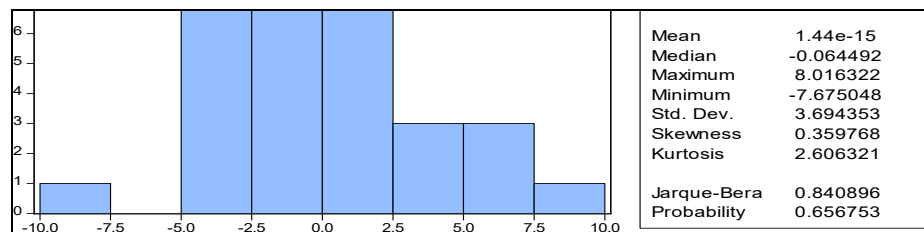
Table 2. Panel Data Regression Results with the CEM and FEM Approaches

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.656003	(2,24)	0.2120
Cross-section Chi-square	3.878176	2	0.1438

Source: E-views 12 output processed

From the results of the Chow test in Table 2, it can be concluded that the appropriate approach used in panel data regression is the Common Effect Model (CEM).

Normality Test Result

Mean	1.44e-15
Median	-0.064492
Maximum	8.016322
Minimum	-7.675048
Std. Dev.	3.694353
Skewness	0.359768
Kurtosis	2.606321
Jarque-Bera	0.840896
Probability	0.656753

Source: Eviews 12 output processed

Figure 2. Normality Test Result with the Jarque-Bera Test

Figure 2 shows the results of the normality test using the Jarque-Bera test method with a Jarque-Bera value of 0.840896. From these results, it can be concluded that if the Jarque-Bera Probability value is 0.656753 > 0.05, then H0 is accepted and means that the residuals are normally distributed.

Multicollinearity Test Result

**Table 3.** Multicollinearity Test Result with Pair Correlation

Variable	Financial distress	Liquidity	Leverage
Financial distress	1.000000	0.519990	0.414761
Liquidity	0.519990	1.000000	0.550221
Leverage	0.414761	0.550221	1.000000

Source: E-views 12 output processed

Table 3 shows the results of the multicollinearity test using the pairwise correlation method, where the pairwise correlation value of each independent variable is <0.85, so H0 is Accepted, and this means that there is no multicollinearity problem.

Heteroscedasticity Test Result

In Figure 3 it can be seen that the points spread randomly, so it can be concluded that there were no symptoms of heteroscedasticity in the regression model in this study.
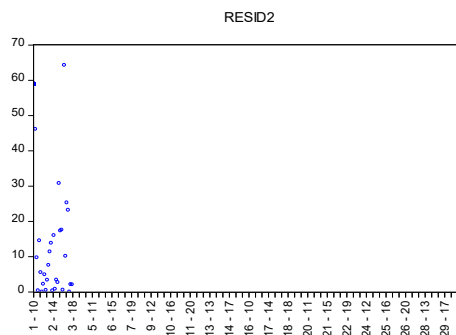
Source: Eviews 12 output processed

Figure 3. Heteroscedasticity Test Result with Scatterplot Graph Test

Autocorrelation Test Result

Table 4. Autocorrelation Test Result with the Durbin-Watson Method

Log-likelihood	-81.26380	Hannan-Quinn criter.	5.744021
F-statistic	699.0815	Durbin-Watson stat	2.549552
Prob(F-statistic)	0.000000		

Source: E-views 12 output processed

Table 4 shows the results of the autocorrelation test using the Durbin-Watson (D-W) method obtained a value of 2.549. Value of the Durbin-Watson statistic lies between 1 and 3, sure $1 < 2.549 < 3$, the non-autocorrelation assumption is fulfilled. That is, there is no high autocorrelation in the residuals.

Hypotesis Result

Table 5. Individual Parameter Test Result

Variable	*Coefficient*	Std. Error	t-Statistic	Prob.
C	-14.05176	5.256282	-2.673327	0.0128
Liquidity	-0.854150	0.692222	-1.233925	0.2283
Leverage	19.09770	9.208501	2.073921	0.0481

Source: E-views 12 output processed

Table 5 shows the results of the Individual Parameter Test (Statistical T-Test), so it can be known as follows:
a. Liquidity (CR) has a coefficient of -0.8541 and a probability t-statistic of $0.2283 > 0.05$, so H0 is accepted and means that the liquidity variable (CR) is partially proven to not affect financial distress.
b. Leverage (DR) has a coefficient of 19.0977 and a probability t-statistic of $0.0481 < 0.05$, so H0 is rejected and means that leverage (DR) is partially proven to have a positive and significant effect on financial distress (ICR).

Table 6. Simultaneous Significance Test Result

R-squared	0.487755	Mean dependent var	-28.81433
Adjusted R-squared	0.486342	S.D. dependent var	13.38503
S.E. of regression	3.901672	Akaike info criterion	5.684253
Sum squared resid	395.7992	Schwarz criterion	5.871080
Log-likelihood	-81.26380	Hannan-Quinn criter.	5.744021
F-statistic	699.0815	Durbin-Watson stat	2.549552
Prob(F-statistic)	0.000000		

Source: E-views 12 output processed

Table 6 shows the results of the Eviews output above, the probability value is 0.00000 which is smaller than the significance level of 0.05 so H0 is rejected. This shows that the variables Liquidity (CR), Leverage (DR), and Profitability (ROA) simultaneously (simultaneously) have a significant

influence on financial distress so that the regression model can be used to predict the dependent variable. The hypothesis in the coefficient of determination test (R2 test) is as follows:

Table 7. Coefficient of determination

Appropriate	Value R-squared ≤ 1 Determination Coefficient Test value (R^2 test) closes to a value of 1
Not Appropriate	Value R-squared ≥ 0 Determination Coefficient Test value (R^2 test) closes to a value of 0

Table 7 shows the results of the test for the coefficient of determination (R^2 test) and it can be seen that the R-squared value is 0.4877 or 48.77%. From the test results of the coefficient of determination (R^2 test) it can be interpreted that the independent variables, namely liquidity (CR), leverage (DR), and profitability (ROA) can explain or be able to describe the dependent variable, namely financial distress (ICR) of 48.77%. And 51.23% is explained or described by other variables not included in this study.

Moderated Regression Analysis (MRA)

Table 8. Moderated Regression Analysis Result

Variable	*Coefficient*	Std. Error	t-Statistic	Prob.
Z_X1	0.077391	0.037929	2.040395	0.0516
Z_X2	2.928647	0.566786	5.167113	0.0000

Source: E-views 12 output processed

Based on Table 8, it shows that the interaction of ROA and liquidity ratio is not able to moderate the relationship between liquidity ratio and financial distress, with a coefficient value of 0.077391 and a probability value of 0.0516 > 0.05, so H0 is accepted. While the interaction of ROA and leverage is able to moderate leverage on financial distress with a coefficient value of 2.928647 and a probability value of 0.000 < 0.05, so H0 is rejected.

The panel data regression equation model obtained in this study is as follows:

$$Y_{it} = -14.05176 + (-0.854150) X_{1it} + 19.09770 X_{2it} + 0.077391 X_{1it}Z + 2.928647 X_{2it}Z + \varepsilon_{it}$$

Discussion

Effect of Liquidity on financial distress

The test results in this study indicate that liquidity has no significant effect on financial distress, where it has a coefficient value of -0.8541 and a Probability t-statistic value greater than its significance of 5% (0.2283 > 0.05), so Hypothesis 1 is rejected. These results indicate that the level of liquidity in Islamic banking, which reflects the Company's short-term ability to meet its current obligations, is not sufficient to explain the potential for financial distress as a whole. This finding is in line with the signaling theory which shows that liquidity only provides a partial signal regarding financial health conditions, but is unable to fully describe the risk of distress if it is not supported by other factors. In the Islamic banking system, the principle of fund management is different from conventional banks because it avoids elements of usury and speculation. With these characteristics, the risks faced by Islamic banking are more related to the quality of financing than the ability to maintain the liquidity ratio. In the context of Islamic banking in Indonesia, financial distress is more influenced by the quality of the financing portfolio, the accuracy of business strategies, and the efficiency of cost management, not just the liquidity ratio alone. The results of this study are in line with research conducted by (Indriani & Mildawati, 2019; Putri & Naibaho, 2022) which found no influence between liquidity and financial distress.

Leverage effect on financial distress

The test results in this study indicate that leverage has a positive and significant effect on financial distress, which has a coefficient value of 19.0977 and a Probability t-statistic value smaller than its significance (0.0481 < 0.05). Hypothesis 2 is accepted. These results provide an understanding that the

higher the debt-to-equity or asset ratio, the greater the likelihood that Islamic banking will experience financial difficulties. High levels of leverage can reflect an aggressive growth strategy by increasing financing through external sources. This finding strengthens the argument that leveraging risk management is a crucial factor in maintaining the sustainability and financial health of Islamic banks. Failure to maintain a healthy leverage ratio can worsen financial conditions and reduce the trust of stakeholders, including investors. The results of this study support research conducted by (Affiah, 2018; Amoa-Gyarteng, 2021; Luh et al., 2015) which found that leverage has an effect on financial distress.

Profitability moderates the relationship between liquidity ratio and financial distress
The results of the Moderated Regression Analysis (MRA) test in this study indicate that profitability is unable to moderate the effect of liquidity on financial distress, where the Probability value is greater than its significance value (0.0516> 0.05), Hypothesis 3 is rejected. The results of this study indicate that Islamic banks with a relatively good level of profitability, this condition is not strong enough to weaken or strengthen the relationship between liquidity and financial distress. This is influenced by several factors. First, the income structure of Islamic banking which is based on profit sharing and non-riba makes the resulting profit more long-term oriented. Second, high profitability is not necessarily liquid, because the resulting profit is still in the form of receivables or long-term investments. These results confirm that profitability does not directly become a protective factor when liquidity pressure occurs. Islamic banking needs to develop a stronger liquidity management strategy and not only rely on profitability. The results of this study support research from Lee et al., (2011).

Profitability moderates the relationship between leverage and financial distress
The results of the hypothesis test show that profitability is able to moderate the relationship between leverage and financial distress. where the Probability value is smaller than the significance value (0.0000 <0.05), so Hypothesis 4 is accepted. These results provide a positive signal that profitability acts as a financial reserve that can balance leverage risk and Islamic banks still have a strong capacity to meet their financial obligations. In high profit conditions, Islamic banking can generate sufficient income to cover the financial burden caused by leverage. This shows that profitable Islamic banking has better financial resilience, even in high leverage conditions. Therefore, profitability acts as a protective factor that reduces the negative impact of leverage on the possibility of financial distress. According to Idawati, (2020a) profitability measures the company's ability to generate maximum profit by using its assets and capital, so the higher the profitability, the better the turnover of funds in the company to generate profit. This research is in line with research conducted (Noviati et al., 2021; Sudaryanti & Dinar, 2019).

Conclusion

This study finds that the moderating role of profitability in the context of Islamic banking in Indonesia (2021–2024) is limited, specifically only effective on the relationship between leverage and financial distress. Based on the results of the analysis, the test results show that liquidity has no effect on financial distress. These results indicate that the level of liquidity in Islamic banking, which reflects the Company's short-term ability to meet its current obligations, is not sufficient to explain the potential for financial distress as a whole. Leverage has a positive and significant effect on financial distress. These results provide an understanding that the higher the debt-to-equity or asset ratio, the greater the likelihood that Islamic banking will experience financial difficulties. Then from the results of the hypothesis testing it can be found that profitability is unable to moderate the relationship between liquidity and financial distress, while the relationship between leverage and financial distress can be moderated by profitability. Profitable Islamic banking has better financial resilience, even in high leverage conditions. Therefore, profitability acts as a protective factor that reduces the negative impact of leverage on the possibility of financial distress.

Islamic banks do not use interest charges, so they adjust them to sharia financial expense, which are deemed relevant because they have the same substance, representing fixed payment obligations to third parties. This is an important finding in measuring financial distress in Islamic banking. It can provide a conceptual and methodological basis for developing indicators that align with the characteristics of

Islamic banking, thus maintaining relevance for further research and remaining comparable with conventional banks.

The limitation of this study is that researchers only use one financial distress measure, namely the interest coverage ratio (ICR), so the research results may be different if using other financial distress proxies, such as negative earnings per share (EPS), the Z-Score method, and negative operating profit two years in a row. The results of the analysis carried out in this study to predict bankruptcy are not entirely accurate, but the results of this research analysis are still important in providing early warnings regarding predictions of financial difficulties in a company so that the company can make improvements or policies to improve its performance. Suggestions for future researchers making profitability a buffer in facing potential financial difficulties and also presenting the efficiency of managing Islamic banking business assets, so it is relevant to be tested as a moderating or mediating variable in the relationship between financial variables, consider the object and year of research to obtain a more sufficient number of samples, use other financial distress proxies such as earnings per share (EPS), Altman Z-Score method, two-year negative operating profit, and add other variables so that it is more obtain an overview of the company's financial distress condition. Companies should consider more steps in maintaining business continuity by predicting the possible causes of financial distress so that they can take corrective action early if it is predicted to experience financial distress.

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