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Islamic financing and firm performance: evidence from Indonesia

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Abstract

Purpose - This paper analyzes the impact of financing decisions on firm performance. In particular, the effect of Islamic financing on financial profitability.

Method - We use a sample of 87 non-financial firms from 2018 to 2022 listed on the Indonesia Stock Exchange and yields 434 observations after selected companies that use Islamic financing as a sample criteria. The data comes from audited annual report and the Osiris database. To analyze the data, this research employs a quantitative method with the random effect regression technique.

Result - Our findings shows that Islamic financing can affects firm performance. The firm can use Islamic financing as a strategic financial decision and as alternative source of financing that can improve firm performance.

Implication - This paper calls for policymakers, specifically top executive management, to pay more attention to and consider Islamic financing as an alternative to corporate financing in relation with the company's capital structure. Regulators also should encourage and improve regulations to support and facilitate the infrastructure of Islamic finance.

Originality - This study expands the empirical studies in finance particularly in the area capital structure.

Keywords: Islamic financing; firm performance; firm value; return on asset; tobinsQ

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Introduction

Amid the significant development of Islamic finance in recent decades, it has been shown that the growth of Islamic finance globally in 2022 have reached 17% (Dinar Standard, 2023). The past studies have conducted research in this field, including research about investment risk, better liquidity, and the principle of prudence in providing loans (Abdul Halim et al., 2019, 2020; Kayed & Hassan, 2011). Indonesia, which has a Muslim population of 248 million or around 87% of the total population, is one of the countries that has the potential to increase its Islamic financial market. In addition, Indonesia is a country that has a strong Islamic financial ecosystem and is ranked third based on the Global Islamic Economic Indicator (GIEI) after Malaysia and Saudi Arabia (Dinar Standard, 2023). Otoritas Jasa Keuangan (2024) showed that the national Islamic financial literacy index increased by 39.11% in 2023 from 9.14% in 2022, implying that the Islamic financial market share has the potential to continue to grow and can be utilized by Islamic financial institutions to improve the quality of their financing products. At the same time, Islamic financing offers loans with lower costs and risks than conventional (Abedifar et al., 2013). The financing system used is under Islamic or Shariah principles, which provides products free from charging interest and uncertainty and applies a profit-sharing system and sharing risks (Bananuka et al., 2020; Silvia et al., 2024).

However, the use of Islamic financing in practice has not been optimal, either at the community or the firm level. The Deputy Chairman of the Board of Commissioners of the Indonesia Financial Services Authority stated that only 8.7% of the Indonesian population uses Islamic financing. Although 62% of the Indonesian population knows about Islamic financing products, the low level of Islamic financial inclusion is still at 12% while Islamic financial literacy has only reached 39.11% in recent years1. This condition indicates a lack of public understanding in distinguishing between Islamic and conventional financing products and their use, including Islamic financial services that are less friendly and innovative and a lack of encouragement from religious leaders in educating and recommending to the public as well as attention from the government and regulators in supporting Islamic financing. Indonesia still produces several regulations resulting from non-Islamic legal mechanisms (Brahmana & You, 2022).

Capital structure is the most critical part of a company, especially in optimizing wealth and minimizing capital costs in carrying out company activities (Nazir et al., 2021). The company's financial structure consists of a combination of debt and equity,

[1] https://www.antaranews.com/berita/4392090/ojk-tantangan-sektoral-turunkan-ranking-keuangan-syariah-indonesia

resulting in strategic decisions to increase the firm's profitability (Jha & Kumar Mittal, 2024). Several studies argue that company performance and financial decisions have a reciprocal relationship, implying that the right and good decisions regarding capital structure will affect the improvement of performance and stability in the capital market. Conversely, the good firm performance will also facilitate firms to ease to choose debt or equity financing. The literature have examined the financial structure of companies, especially regarding capital structure, such as debt and equity, which is still an unsolved puzzle, and often called as the "capital structure puzzle" (Mundi, 2024). Deangelo (2022) highlights that a manager's inability to identify differences in capital structure choices is critical to solving this puzzle because top managers are unaware of the impact of their decisions on the capital structure, specifically the debt financing chosen.

Financing or funding decisions are a critical aspect that can affect firm performance. Islamic financing can be an alternative option for firms operating in Muslim countries such as Indonesia. Islamic financing use Islamic principles that constantly refer to the principles of justice and honesty in every transaction activity (Bananuka et al., 2020). In addition, it also provides a unique offer in managing different risks and finances compared to conventional financing. Islamic financing can mitigate the risk of a business and provide a solution to the financial crisis (Ahmed, 2010; Kayed & Hassan, 2011). Therefore, Islamic financing can be one of the company's financial decisions that offer a different approach because it use the principle of risk sharing and the prohibition of interest (Abedifar et al., 2013).

Previous studies indeed have investigated relationship between equity and debt financing and its impact on firm performance with various and different empirical results. Ghardallou (2022) argued that using equity financing significantly and positively affects company performance through the firms' profitability ratio. Meanwhile, other studies find that debt financing hurts the firms' financial performance (Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021). On the other hand, Weill (2008) argues that debt financing can have a positive or negative effect on the firms' financial performance since it depends on several factors such as macroeconomics conditions and global economics crisis. However, empirical research that see the impact of Islamic financing on firm performance is still muted. Existing empirical studies show that Islamic financing forms a significant part of the company's capital structure because some less profitable companies prefer debt financing to equity in their capital structure (Minhat & Dzolkarnaini, 2017). There is still a gap in previous research that only discusses the importance of Islamic financing in company structure, as seen from several factors, so we fill this gap by specifically investigating how the use of Islamic financing impacts company performance. Nevertheless, Islamic financing is preferable over conventional financing because of its distinctive features, namely various risks and Sharia compliance

as a screening tool to adjust Islamic-based financing (Silvia et al., 2024). Furthermore, this paper also looks the external side, such as whether the Covid-19 pandemic and economic policy uncertainty such as inflation significantly impact the performance of non-financial companies. We try to answer this phenomenon by using a sample of 88 non-financial companies listed on the Indonesian capital market or the Indonesia Stock Exchange (IDX) that have Islamic financing in their capital structure profile.

Several contributions can be made from this paper to the existing financial literature. First, this study expands the empirical studies about capital structure using Shariah financing and its impact on company profitability in Indonesia's context as a country with the largest Muslim population. It can add a new perspective to the Islamic finance literature. Second, although several studies have examined the relationship between debt and company performance (Ghardallou, 2022; Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021), but the literature rarely examine the relationship between Islamic financing and company profitability in non-financial companies that use Islamic financing as part of their capital structure. Islamic financing can be an alternative to debt financing for companies and is a vital part of the financial capital structure. It can expand the company's preferences regarding financial decisions in choosing appropriate external financing by considering the risks and costs in forming a capital structure as a strategic step. Third, this study contributes to the literature by finding empirical evidence of the impact of the COVID-19 pandemic on company performance and investigating the effect of economic policies in Indonesia and the global economy on financial performance.

Literature Review

Theories on financial decisions that influence a company's performance have different viewpoints and it often raises debates because of the different empirical evidence by different researchers. Modigliani and Miller (1958) stated that funding decisions do not affect the value of the firm. Myers (1984) argued that firms face difficulties and uncertainties in understanding and choosing their capital structure (still a puzzle). Trade-off theory states that the best debt financing source determines the optimal capital structure by looking at several other factors impacting the firms' value and Pecking Order Theory explains that there is no perfect capital structure (Myers, 1984). Jensen (1986) discussed the conflict of interest between shareholders and creditors so that agency costs arise; therefore, information asymmetry between the company and the bank allows agency conflicts to arise regarding financing. The theories above explain that factors can influence the use of debt financing, both internally and externally, which will impact a firm's performance. However, some top managers still need to understand the overall financing decision, especially using Islamic financing as a

company financing instrument in determining the capital structure. Theoretically, it refers to financing that adhere Islamic principles which prohibit interest-based debt financing (riba), transactions that have excessive uncertainty (gharar), and high speculation (maysir) (Abedifar et al., 2013).

In this context, Islamic financing provides a different approach to determining the capital structure and its impact on the company's profitability and financial stability. Companies can use profit-loss sharing schemes to enhance their funding sources without incurring debt costs that could increase their marginal profits. Minhat & Dzolkarnaini (2017) state that organizations employing Islamic financing in their capital structure can improve profitability. Moreover, Shariah screening and risk-sharing systems can reduce agency conflicts where this financing requires managers to share results and risks to prioritize the company's interests and avoid opportunistic actions. By emphasizing values and ethics, Islamic financing effectively minimizes conflicts of interest (Ahmed & Aassouli, 2022).

Previous research by Nazir et al. (2021) and Jha and Kumar Mittal (2024) provide empirical results that debt financing, both in the short and long term, has a negative and significant impact on firm performance especially their profitability. Meanwhile, other studies that provide contrasting results show that financing positively affects company performance (Ghardallou, 2022), and the level of leverage significantly and positively also impacts the performance (Weill, 2008). Minhat and Dzolkarnaini (2017) have proven that companies prefer Islamic financing to include in the capital structure compared to conventional funding while some other firms prefer debt financing. It explains that financial decisions in determining the capital structure, in the form of debt or equity financing, will also depend on many factors such as the risks and costs.

Islamic financing has unique features in its financing system, such as risk-sharing mechanisms and sharing of profits and losses between companies and banks (Silvia et al., 2024), and has a low risk (Abdul Halim et al., 2020). Minhat and Dzolkarnaini (2017) argue that Islamic financing can affect the proportion of capital structure as a financial decision the company takes. In addition, Islamic financing is reported not only to uphold justice and honesty, but also as financing with ethical and prudent principles (Ahmed, 2010; Bananuka et al., 2020). It means that Islamic financing can reduce agency costs for companies and banks. The presence of Islamic financing can add different preferences and perspectives for companies in making decisions and also as a financing diversification strategy to determine their capital structure, which can also improve company performance.

Hypotheses Development

Based on the arguments above, the implications of Islamic financing emphasize the principles of justice and transparency that can affect financing decisions and how companies manage costs and risks. Apart from that, Islamic financing has a unique financing scheme by implementing a system of profit-loss sharing and it also has a Shariah screening system. Theoretically, Islamic financing can reduce managerial opportunistic actions, implying that the firm will behave prudently. Therefore, Islamic financing is value-loaded and it offers alternative financing with low risks and costs. Islamic financing can also reduce conflicts of interest or agency problems between companies and Islamic financial institutions by financing schemes that prioritize values and ethics in increasing company value. Therefore, the hypothesis of this paper is as follows:

H. Islamic financing has a positive impact on firm performance

Research Methods

Data and Sample

This study uses samples of non-financial firms listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022. The sample collection method is purposive sampling, which determines the sample based on criteria as follows: (1) non-financial firms that listed on the Indonesian capital market or IDX, (2) firms that use Islamic and conventional financing as capital, and (3) financial reports that have been published and audited. We obtained the data from several sources, including the Osiris database, annual reports published on the company website, and IDX. Specifically, for Islamic financing, data is obtained from financial records reports on loan accounts in the audited annual report. Our final dataset consists of 87 non-financial firms for the period of 5 years and yielding 434 firm-year observations.

Variables

Firm performance is the dependent variable in this study. Following previous studies, return on assets (ROA) (Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021), and TobinsQ (Ghardallou, 2022; Mundi, 2024; Rahardjoputri et al., 2024) are used to measure company performance. ROA is the accounting-based performance measurements calculated by dividing net income to total assets while TobinsQ is market-based performance ratio measured by market value of a company plus the book value of its debt and divided by its total assets.

The independent variable in this study is the Islamic debt financing ratio as a proxy for Islamic financing. Following (Brahmana & You, 2022), we conduct a proxy for Islamic funding with total Islamic loans to total loans as follows:

$$\text{Islamic Financing ratio} = \frac{Islamic\ Financing}{Total\ Loan} \quad (1)$$

In this study, we also use several control variables that are specific to several companies (Ghardallou, 2022; Jha & Kumar Mittal, 2024; Mundi, 2022, 2024; Nazir et al., 2021; Orlova et al., 2020; Rahardjoputri et al., 2024) which states that several company-specific factors can determine capital structure and also have an impact on financial decisions. Then, this study uses several variables such as leverage (total liabilities divided by total assets), size (logarithm of total assets), tangibility (total fixed assets divided by total assets), and liquidity (total current assets divided by total liabilities) as controls.

We also use another measurement with debt financing diversification as additional proxies. It is a variation of loans using two types of debt financing schemes: Islamic and conventional. It measures debt financing diversification using the Herfindahl-Hirschman Index (HHI). The calculation of the HHI index in the equation follows (Trinugroho et al., 2018), where loan diversification (LoanDiv) ranges from 0.0 to 0.5, meaning that a higher value indicates diversified debt financing.

This study also includes several other control variables, such as COVID-19 (Arhinful & Radmehr, 2023; Rahardjoputri et al., 2024). COVID-19 is a dummy variable that states that the value "1" in observations in 2020 and 2021 is the Covid year, and vice versa, the value "0". Then, we also used a dummy variable representing State-Owned Enterprises (SOE) as a control variable that refers to previous research (Trinugroho et al., 2023). In the robustness test, this paper added inflation as an additional variable to describe the effect of the macroeconomic factors on financing decisions (Tinoco Zermeño et al., 2018). Table 1 shows the definition of the variables.

Econometrics Strategy

In this paper we use panel data regression to investigate the impact of Islamic debt financing on company performance. Based on modeling from several previous studies (Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021), this paper differs to them by looking at market and accounting performance of the firms, namely TobinsQ and ROA. This research used the random effect estimation regression method for data analysis. The following is the regression model applied in the study:

$$TobinsQ_{it} = \alpha + \beta_1 IF\_Ratio_{it} + \beta_2 Loan\_Div_{it} + \beta_3 covid_{it} + \beta_4 size_{it} + \beta_5 lev_{it} + \beta_6 Tangibility_{it} + \beta_7 SOE\_Dummy_{it} + \varepsilon_{it} \quad (2)$$

$$ROA_{it} = \alpha + \beta_1 IF\_Ratio_{it} + \beta_2 Loan\_Div_{it} + \beta_3 covid_{it} + \beta_4 size_{it} + \beta_5 lev_{it} + \beta_6 Tangibility_{it} + \beta_7 SOE\_Dummy_{it} + \varepsilon_{it} \quad (3)$$

Table 1

Definitions of the Variables

Variable	Description	References
TobinsQ	The market capitalization of a company plus the book value of its debt and divided by its total assets	(Ghardallou, 2022; Mundi, 2024; Rahardjoputri et al., 2024)
ROA	The ratio of net income divided by total assets	(Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021; Rahardjoputri et al., 2024)
NPM	The ratio of net income after tax divided by the total outstanding share	(Nazir et al., 2021)
EPS	The ratio of net income after tax divided by the total outstanding share	(Arhinful & Radmehr, 2023)
Loan_Div	Loan diversification is calculated based on the amount (square) of each type of debt financing to total loans or HHI measurement.	(Trinugroho et al., 2018)
IF_Ratio	The ratio of Islamic financing (Islamic Financing) from the comparison of Islamic lending to total loans	(Brahmana & You, 2022)
Covid	Covid-19 pandemic dummy variable, “1” for observations in 2020 and 2021, and “0” for observations in years before 2020	(Arhinful & Radmehr, 2023; Rahardjoputri et al., 2024)
Liquid	Total current assets divided by total liabilities	(Davydov, 2016)
Size	Logarithm of total assets	(Jha & Kumar Mittal, 2024; Nazir et al., 2021)
Lev	The ratio of the comparison of total debt to total assets of the company	(Mundi, 2024; Rahardjoputri et al., 2024)
Tangibility	The ratio of net fixed assets divided by total assets	(Ghardallou, 2022; Mundi, 2024; Nazir et al., 2021)
Inflation	The average percentage change in prices of goods and services	(Tinoco Zermeño et al., 2018)
SOE	A dummy variable that states "1" if the observation is a state-owned company and otherwise "0."	(Trinugroho et al., 2023)

Source: Authors’ work

Results and Discussion

Descriptive Statistics

Table 2 represents a statistical description of all variables in this study. Among all company performance indicators, TobinsQ has the highest statistical average value of 0.821 compared to ROA, which has an average value of 0.024. It shows that the company has positive market potential and provides a large distribution for firm performance, where the company must pay attention and evaluate the efficiency and profit aspects, which are still relatively low in its operational activities and can be improved. It also illustrates the relatively low return on assets. The average value of Islamic financing (IF) is 12.2%, indicating that Islamic financing contributes to determining capital structure. Islamic loans are an attractive financing alternative for companies because they have ethical and fair financing. In addition, the mean of loan diversification (LoanDiv) reached 74.3%. Diversification loans are a financing system strategy that can apply to companies that do not rely only on one source of financing. High loan diversification can increase financial stability and potentially lower risks. Size, with an average value of 12.916, describes that company size is essential when choosing and accessing financing. The SOE dummy variable shows that the average value is 19% for the number of state-owned companies in our observations.

Table 2

Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
ROA	434	0.024	0.072	-0.160	0.177
TobinsQ	434	0.821	1.081	0.068	4.465
NPM	434	0.028	0.170	-0.433	0.297
EPS	434	0.005	0.020	-0.161	0.157
IF	434	0.122	0.167	0.000	0.623
Loan_Div	434	0.743	0.199	0.358	0.994
SOE	434	0.196	0.397	0	1
size	434	12.916	1.779	8.802	15.752
lev	434	0.607	0.317	0.045	2.900
Tangibility	434	0.578	0.226	0.122	0.897
Liquid	434	0.910	1.014	0.021	11.269
Covid	434	0.412	0.493	0	1
Inflation	434	0.030	0.014	0.017	0.055

Source: Authors' work

Table 3

Correlations Matrix

	ROA	TobinsQ	NPM	EPS	IF	Loan_Div	SOE	size	lev	Tangibil~	Liquid	Covid	Infla~
ROA	1												
TobinsQ	0.015	1											
NPM	0.759	-0.048	1										
EPS	0.517	-0.024	0.387	1									
IF	-0.070	0.130	-0.041	-0.036	1								
Loan_Div	0.057	0.042	0.053	0.055	0.235	1							
SOE	0.060	-0.159	0.121	-0.013	-0.036	0.233	1						
size	0.190	-0.310	0.297	0.238	-0.238	0.106	0.463	1					
lev	-0.417	-0.193	-0.264	-0.277	0.033	0.139	0.132	0.048	1				
Tangibil~	-0.157	0.019	-0.047	-0.043	-0.014	-0.011	-0.080	0.202	0.092	1			
Liquid	0.237	0.122	0.128	0.109	0.117	-0.037	-0.083	-0.258	-0.406	-0.559	1		
Covid	-0.099	-0.022	-0.088	-0.084	-0.011	0.037	-0.013	-0.020	0.026	0.021	-0.002	1	
Infla~	0.068	-0.011	0.054	0.086	0.051	0.021	-0.013	-0.033	-0.030	-0.023	0.046	-0.731	1

Source: Authors' work

The correlation matrix is the relationship between variables. As presented in Table 3, leverage has an inverse relationship with several company performance values , such as TobinsQ and ROA. Islamic financing has a positive correlation with market performance (TobinsQ) and a negative correlation with accounting performance (ROA). Islamic financing will increase the firm's market value compared to its profitability (ROA). It shows that investors have a positive perspective on companies that use it because they have Sharia principles, are more transparent, and uphold ethics. Then, Islamic financing only sometimes produces high profits from asset management, indicating a trade-off between ethics and profitability.

Interestingly, the financing diversification variable (LoanDiv) has a positive correlation value with several company performance indicators, especially ROA (0.057) and TobinsQ (0.042). Interpreting financing diversification using external financing instruments from various sources will significantly improve company performance. Explained that diversification loans allow companies to access multiple sources of funding that are cheaper and more flexible and can recognize the company's position in the market and increase its attractiveness to investors. On the other hand, the correlation value for all variables shows results below 0.8, thus confirming that the research carried out is free from multicollinearity.

Regression Results

Table 4 presents the results of the regression test between Islamic financing and company performance proxied by TobinsQ and ROA using Random Effect (RE) as the best model. Our findings prove that Islamic financing positively and significantly affects company performance (TobinsQ and ROA), particularly for TobinsQ. It shows that Islamic financing is more profitable for firms in terms of market value, although it does not significantly impact financially (accounting). As in the prior paper (Rahardjoputri et al., 2024; Trinugroho et al., 2023), due to the differences between market and accounting proxies. Market value responds more positively to Islamic financing and impacts increasing company value rather than its financial value.

Larger companies depend more on equity financing and smaller companies prefer debt financing; this statement is in line with previous study (Minhat & Dzolkarnaini, 2017). From an investor perspective, they are interested in firms using Islamic financing because it's a financing instrument that has more values, ethics, and fairness. It also has a unique financing system like profit-loss sharing (PLS), risk sharing, and funding screening (Shariah compliance). This argument confirms Abdul Halim et al. (2019), who addressed that Islamic financing has a low level of risk for business investment. Market value always reflects long-term expectations and significantly impacts company performance. Islamic financing can promote sustainable growth and financial stability by

offering lower risk and cost advantages on investments. On the other hand, Islamic financing provides a debt financing scheme that emphasizes the value of real assets, ensuring that tangible resources back investments.

Besides, companies that utilize Islamic financing to generate profits from managing their assets do not always provide large profits to the company in improving performance. Several factors can cause it, such as higher costs, lower marginal profit, and Islamic financial regulation and infrastructure impacts. Regulations in several developing countries, especially Indonesia, need to be fixed ideally or fully support Islamic financial policies. Our results also support the Agency Cost Theory (Jensen, 1986), which means that companies that adopt *Shariah* financing provide better alternatives with lower risks and costs than conventional financing. Islamic financing can also help companies reduce conflicts of interest and costs of financing institutions because every financing activity always involves Islamic principles that prioritize ethics and transparency through *Shariah* compliance mechanisms (Ahmed & Aassouli, 2022). Islamic financing provides a loan mechanism without interest charges that apply a profit and risk-sharing system accompanied by *Shariah* compliance that monitors financing activities. It also minimizes deviant actions that prioritize personal interests.

Islamic financing plays a vital role in increasing the company's market value, illustrating that the Islamic financing approach applies a fair and honest financing system (Bananuka et al., 2020) and a low business investment risk value (Abdul Halim et al., 2019). Investors are more interested in companies with diverse funding sources, particularly those with openness and credibility, looking to increase the firm's growth and stability. Islamic financing contributes to expanding the firm's effectiveness in market value, reducing operating costs, and increasing its profitability margin. One of the reasons is using the principle of sharing profits and losses (Minhat & Dzolkarnaini, 2017), having a unique screening process with a *Shariah* compliance system (Silvia et al., 2024), and sharing risks (Bananuka et al., 2020).

The LoanDiv variable (Financing Diversification) significantly affects TobinsQ and ROA performances at the 1% and 5% significance levels. Increasing debt financing diversification will improve firm performance, specifically by making Islamic financing one of the alternative financing instruments for companies. Our results consistent with Minhat & Dzolkarnaini (2017) and Ghardallou (2022), who prove that debt financing, including Islamic financing instruments, has a significant effect on the proportion of the company's capital structure, and the decision to use Islamic financing is related to profitability.

Table 4

Baseline Regression: Islamic Financing and Firm Performance

	(1) RE TobinsQ	(2) RE ROA
IF	0.498**	0.003
	(1.98)	(0.12)
Loan_Div	0.660***	0.047**
	(2.75)	(2.51)
SOE	-0.126	-0.006
	(-0.44)	(-0.46)
lev	-1.130***	-0.166***
	(-4.33)	(-8.35)
size	-0.157***	0.013***
	(-2.75)	(4.44)
Tangibility	-0.018	-0.075***
	(-0.06)	(-3.48)
Liquid	-0.050	-0.003
	(-0.96)	(-0.66)
covid	-0.248***	-0.006
	(-3.28)	(-0.79)
Dummy Year	Yes	Yes
Constant	3.269***	-0.032
	(4.30)	(-0.75)
Observations	434	434
N Firms	87	87
R^2 (Overall)	0.146	0.330

Notes: This table presents the estimation result using Random-Effect Estimation regression with a dummy year. Please see Table 1 for variable definition: *** t <0.01, ** t <0.05, * t <0.1 denote significance in 1%, 5%, and 10% respectively.

The COVID-19 factor negatively and significantly impacts market and accounting performance. Our results confirm previous studies (Arhinful & Radmehr, 2023; Rahardjoputri et al., 2024), implying that the COVID pandemic can significantly reduce financial performance for several non-financial companies. This factor must receive attention from management executives to anticipate and strengthen control over the uncertainty of events and global economic crises in the future. The Size variable has a positive and significant effect on ROA performance. Our results confirm Nazir et al. (2021), who report that company size is one of the crucial aspects in determining debt financing decisions because it positively affects company profitability, especially in terms of asset management. However, companies should pay attention to the level of leverage and tangible assets, which will negatively impact profitability and increase operating costs. Then, it represents a low company value. Our argument concurs with previous empirical evidence (Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021).

Robustness Check

In this section, we want to see the consistency of the main results by conducting various robustness tests. Tables 5, 6, and 7 present the results. We start from Table 5, where the estimating technique was changed using fixed effect following prior studies (Jha & Kumar Mittal, 2024; Mundi, 2024; Nazir et al., 2021). Our results confirm the previous findings, prove that Islamic financing positively affects TobinsQ, and diversification loans are significant and positive for TobisnQ and ROA performances.

The existing literature emphasizes that financing can also affect other financial performance firms. We follow Nazir et al. (2021) and Arhinful and Radmehr (2023) in the second stage of this study. The company's earnings per share (EPS) and net profit margin (NPM) performances were included as a dependent variable, and the effect of Islamic financing on EPS and NPM accounting performances was also examined in the context of the firm's profitability. Our findings are presented in Table 6, using a fixed effect (FE) approach, and it proves that the results have not changed. It explains that increasing access to Islamic financing will raise the profit margin obtained by the company.

In the third stage, this study adds the control variable by using the inflation rate at the province level as one of the macroeconomic factors, measuring the average percentage change in prices of goods and services following previous studies (Tinoco Zermeño et al., 2018). Table 7 presents the results where models 1 and 2 use the random effect (RE) method, and models 3 and 4 use the fixed effect (FE) regression method to compare the results found. Once again, our results prove that Islamic financing positively and significantly impacts market performance (TobinsQ) and not significant accounting performance (ROA). Loan diversification also positively and significantly impact market value (TobinsQ) and accounting performance (ROA). Inflation has a negative and significant effect, particularly on market financial performance. High inflation can reduce the company's market value. It shows that the market responds to economic uncertainty caused by inflation, which affects the company's profitability. This analysis confirms the previous empirical evidence (Tinoco Zermeño et al., 2018) that Islamic financing is an integral part of and influences the capital structure proportion (Minhat & Dzolkarnaini, 2017).

Conclusion

This study aims to analyze the impact of Islamic debt financing on company performance using a sample of 88 non-financial companies listed on the Indonesian capital market, especially those using Islamic financing in their capital structure, resulting in 434 observations from 2018 to 2022. After conducting a regression analysis, the findings indicate that diversification of Islamic financing has a positive and significant

effect on accounting performance and market performance. This finding agrees with the Agency Cost Theory (Jensen, 1986), which shows that high Islamic financing will improve a company's accounting performance and market performance, especially non-financial companies that adopt Islamic financing into their capital structure. Islamic financing applies Shariah and financing mechanisms using a risk-sharing system and sharing profits and losses. Shariah compliance plays a vital role in controlling debt financing in every transaction activity, thus making financing more ethical and transparent, which can minimize agency problems and mitigate risks. Trust is key to Islamic financing (Ahmed & Aassouli, 2022). Loan diversification positively and significantly affects company performance, implying that it would be better for companies to access their financing from various sources and not just focus on one source to determine the chosen instrument. These findings prove that financing instruments have a significant impact on firm performance.

Table 5

Robustness Check: Fixed Effect Estimation

	(1) RE TobinsQ	(2) RE ROA
IF	0.482*	0.036
	(1.78)	(1.34)
Loan_Div	0.633**	0.084***
	(2.36)	(3.20)
lev	-1.036***	-0.166***
	(-3.43)	(-5.59)
size	-0.051	0.055***
	(-0.34)	(3.78)
Tangibility	-0.173	-0.115***
	(-0.41)	(-2.77)
Liquid	-0.075	-0.001
	(-1.33)	(-0.18)
Covid	-0.263***	-0.013*
	(-3.30)	(-1.69)
Dummy Year	Yes	Yes
Constant	1.917	-0.575***
	(0.96)	(-2.93)
Observations	434	434
N Firms	87	87
R^2 (within)	0.137	0.240

Notes: This table presents the estimation result using different regression methods, namely fixed effect. We use a dummy year in this estimation. Please see Table 1 for variable definition: *** t <0.01, ** t <0.05, * t <0.1 denote significance in 1%, 5%, and 10% respectively.

Table 6

Robustness Check: Alternative Dependent Variable

	(1) RE NPM	(2) RE EPS
IF	0.172**	0.009
	(2.42)	(1.31)
Loan_Div	0.009*	0.001*
	(1.92)	(1.97)
size	0.082***	0.003
	(2.64)	(0.32)
lev	0.012	-0.018
	(0.35)	(-0.91)
Tangibility	-0.007	-0.028
	(-0.06)	(-0.85)
Liquid	0.186***	0.003
	(4.53)	(0.22)
Covid	-0.027**	0.000
	(-2.41)	(0.09)
Dummy Year	NO	Yes
Constant	-1.200***	-0.006
	(-2.89)	(-0.05)
Observations	434	434
N Firms	87	87
R^2 (Within)	0.125	0.109

Notes: This table presents the robustness check estimation result using different model firm performance, namely NPM (net profit margin) and EPS (earning per share) with fixed effect regression. Please see Table 1 for variable definition: * t <0.01, ** t <0.05, *** t <0.1 denote significance in 1%, 5%, and 10% respectively.

Apart from the significant regression results, this study still has many limitations, primarily since our sample used only one country (Indonesia). Therefore, the results cannot be generalized in a broader context. Also, this study did not include social behavior variables such as CEO social capital and religiosity as factors that can expand in studying financing preferences as decision making. This study also does not include other variables such as Shariah supervisory board or Shariah compliance to test the interaction between Islamic loans and company performance. Further research could provide data from several countries and see whether the results are the same as what we obtained in this study. Furthermore, Islamic and conventional financing should be compared for more comprehensive results. It can significantly contribute to expanding the context of the relationship between the impact of financing literature and company performance.

Table 7

Robustness Check: Additional Control Variable

	(1) RE TobinsQ Random Effect	(2) RE ROA Random Effect	(3) FE TobinsQ Fixed Effect	(4) FE ROA Fixed Effect
IF	0.500**	0.003	0.487*	0.034
	(1.98)	(0.14)	(1.80)	(1.28)
Loan_Div	0.660***	0.048**	0.620**	0.089***
	(2.75)	(2.52)	(2.30)	(3.37)
SOE	-0.115	-0.006	-	-
	(-0.40)	(-0.45)		
size	-0.163***	0.013***	-0.097	0.059***
	(-2.78)	(4.31)	(-0.65)	(4.11)
lev	-1.181***	-0.168***	-1.170***	-0.113***
	(-3.43)	(-6.36)	(-2.96)	(-2.93)
Tangibility	-0.092	-0.078**	-0.378	-0.041
	(-0.21)	(-2.53)	(-0.68)	(-0.75)
Liquid	-0.101	-0.006	-0.188	0.042**
	(-0.56)	(-0.42)	(-0.87)	(1.98)
Covid	-0.434***	-0.009	-0.451***	-0.021*
	(-4.17)	(-0.86)	(-4.07)	(-1.91)
Inflation	-14.58***	-0.214	-15.27***	-0.430
	(-4.60)	(-0.69)	(-4.61)	(-1.33)
Dummy Year	Yes	Yes	Yes	Yes
Constant	3.911***	-0.019	3.289	-0.740***
	(3.99)	(-0.33)	(1.51)	(-3.48)
Observations	434	434	434	434
N Firms	87	87	87	87
R-Square	0.149	0.329	0.134	0.249

Notes: This table presents the robustness check using additional proxies from control variables, such as inflation as a macroeconomic factor at the province level. We estimate with random effect regression in 1 and 2 models and fixed effect regression in 3 and 4 models. Please see Table 1 for variable definition: *** t<0.01, ** t<0.05, * t <0.1 denote significance in 1%, 5%, and 10% respectively.

The results of this study recommend that policymakers or top executive management of companies consider using Islamic financing as alternative financing and the right decision in determining the capital structure. The more firms get funding sources, the more alternatives and choices for financing. Islamic financing can be a solution to a company's external financing because it has a system that has ethics and transparency. Regulators also continue to evaluate and improve Islamic financial infrastructure to strengthen the stability of Islamic capital markets, especially related to Islamic debt financing and investment. Among them, they can collaborate with several financial institutions and produce regulations that better support the progress of Islamic finance so that they can contribute more to Indonesia.

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