International Journal of Social Science, Educational, Economics, Agriculture Research and Technology (IJSET) | ISSN (e) : 2827-766X
Volumes 4 No. 10 (2025)

FIRM VALUE OF ISLAMIC BANKING IN INDONESIA: THE EFFECT OF RISK PROFILE AND INVESTMENT RISK WITH EFFICIENCY AS A MODERATING VARIABLE

Ahmad Zubair[1], Husaini[2], Jummaini[3], Hijri Juliansyah[4]
Universitas Malikussaleh, Lhokseumawe
E-mail: ube.ekis@gmail.com[1], husaini@unimal.ac.id[2], jummaini@unimal.ac.id[3], hijri@unimal.ac.id[4]

Received	: 20 August 2025	Published	: 14 October 2025
Revised	: 10 September 2025	DOI	: https://doi.org/10.54443/ijset.v4i10.1187
Accepted	: 05 October 2025	Link Publish	: https://www.ijset.org/index.php/ijset/index

Abstract

Firm value is a fundamental aspect considered by investors when selecting investment targets. During 2024–2025, the firm value of Islamic banks in Indonesia experienced a decline, thereby motivating this study to examine the determinants of firm value in this sector. Specifically, the research investigates the influence of risk profile and investment risk on firm value, with efficiency serving as a moderating variable. This is a quantitative study based on secondary data obtained from the Indonesia Stock Exchange (IDX) and the Financial Services Authority (OJK). The sample consists of 204 observations covering the period 2021–2025. The findings reveal that the risk profile has no significant effect on firm value, while investment risk has a significant positive effect on the firm value of Islamic banks in Indonesia. Furthermore, efficiency functions as a moderating variable, categorized as a pure moderator, in the relationship between risk profile, investment risk, and firm value.

Keywords: ***Firm Value, Risk Profile, Investment Risk, Efficiency, Islamic Bank***

INTRODUCTION

The growth of the Islamic banking industry in the market is inseparable from firm value, which has shown positive growth annually. Firm value is the market's perception and projection of a company's future performance, expressed through specific indicators such as Tobin's Q.(Murwani & Taufiq, 2022)However, in mid-March 2025, the Jakarta Composite Index (JCI) fell by 9%. The financial sector was the second most affected sector, after the technology sector, with an average decline of 7%.(Putri, 2025)This will actually result in a lack of investor interest in investing in Islamic bank shares in Indonesia.(Sasongko, 2025).

According toJensen & Meckling (1976)Firm value is influenced by financial performance, non-financial performance, company policies, macroeconomic conditions, and good corporate governance. One approach to analyzing financial performance is the risk profile. Several previous studies have shown that risk profile has a negative and significant effect on firm value, such as research from(Murwani & Taufiq, 2022),(Bijak et al., 2024),(Astuti & Djajanti, 2024)And(Olalere et al., 2021)However, researchers also found several studies that showed that risk profile had no influence on firm value, such as the results of research from(Halawa et al., 2024)And(Nurfhadila & Lenap, 2025)In theory, the relationship between risk profile and firm value is negatively correlated. Based on this, researchers see a gap in research regarding the relationship between risk profile and firm value in Islamic banking in Indonesia.

Another factor that can influence firm value is investment risk. This risk is caused by investment uncertainty, so actual returns may be lower or higher than expected.(Jogiyanto, 2014)To measure a company's investment risk, look at the PER (Price Earning Ratio). Observations show that several previous studies have shown that investment risk has a positive and significant effect on firm value, such as research conducted by(Isnaeni et al., 2021),(Ningsih et al., 2023),(Salehi et al., 2022)And(Jagirani et al., 2023)However, there is also other previous research that shows that investment risk has no influence on firm value, such as research conducted by(Rosyid et al., 2022),(Sundari & Sugiyanto, 2023), And(Fitria & Irkhami, 2021). Based on this phenomenon, researchers want to examine the relationship between investment risk and the firm value of Islamic banking in Indonesia. Another important aspect that can influence firm value is a company's efficiency. Efficiency assessments serve not only as a productivity metric

but also as a basis for assessing a bank's stability and growth more efficiently.(Berger & Mester, 1997). The efficiency value in this study was measured using the DEA approach. In several previous studies, efficiency showed a positive and significant relationship with firm value, such as the study(Nikmah & Hung, 2024), And(Watson et al., 2024). Furthermore, the researcher also looked at previous research that placed Efficiency as a moderating variable and showed that efficiency succeeded in becoming a moderating variable in research conducted by(Pampurini et al., 2025)And(Agustin & Setiawan, 2021)In this study, efficiency will be used as a moderator of risk profile and investment risk on firm value.

LITERATURE REVIEW

Grand Theory

a. Signaling Theory

Signaling Theory was proposed by Spence in 1973. According to him, parties with information always provide information to users to capture the signals they want to convey. This theory explains that every company dealing with the public must always provide information containing signals, whether positive or negative, so that the public can process these signals into decisions that align with the signals provided.(Bijak et al., 2024)In the context of this research, the PER, NPF, and Efficiency values, using the DEA approach, serve as signals that investors can capture when deciding whether to buy a company's shares. This investor decision will ultimately influence firm value. With information from these variables, investors can assess whether the offered share price aligns with the company's performance, thereby determining whether the issuer's share price is undervalued or overvalued.

b. Efficiency Market Theory

The theory of market efficiency was first proposed by Eugene Fama (1970), who explained that market efficiency occurs when no one has access to information that can generate abnormal profits. This means that the market is said to be efficient if the circulating share price is derived purely from the company's financial information and is accessible to the public.(Gumanti & Utami, 2002)In the context of this research, the market efficiency theory used is Semi-Strong Form. This theory states that stock prices reflect a company's publicly accessible financial statements, such as the risk profile stated in the NPF as a reflection of the risk of non-performing financing, investment risk stated in the PER as a reflection of investment risk derived from net income and stock prices, and also the measurement of company efficiency through DEA. This market reaction will later affect firm value through the measurement of Tobin's Q.

Islamic Banking

According toPerwataatmadja et al (1992)AndSchaik (2001)provides a definition that Islamic banks are business entities in a modern form in accordance with Islamic principles. SpecificallyOJK (2008)explains that Islamic banking is everything that is included in Islamic banks, Islamic business units both institutionally, procedures and business activities carried out, and BPRS (Islamic People's Financing Banks).

a. Firm Value

Firm value is the market value of a company's finances and organizational management as a growing company. This value is reflected in the market perception created by the company's performance. This is generally expressed by the company's stock price on the capital market. According toBrigham & Houston, (2014)measuring company value using PBV (Price to Book Value) and Tobin's Q.

1. PBV (Price to Book Value)
   PBV is the ratio of a stock's market price to its book value per share. This relationship indicates the market value of a company's shares. The higher the PBV, the greater the market's perception of the company's ability to create value for shareholders.
   The PBV formula is:

$$\text{PBV} = \frac{\text{Harga Saham}}{\text{Book Value per Share (BV)}}$$

2. Tobin's Q
   This ratio compares a company's market value to the exchange value of its assets. A high Tobin's Q indicates that the company's market value exceeds the exchange value of its assets, thus attracting investor interest.
   Tobin's Q formula:

$$Q = \frac{\text{Nilai Pasar Ekuitas} + \text{Total Liabilitas}}{\text{Total Aset}}$$

b. Risk Profile

Risk Profile reflects the various types of risks to which business and investment activities are exposed.OJK (2016)has developed a number of quantitative metrics used to measure risk. Two key indicators are Non-Performing Financing (NPF) and the Financing-to-Deposit Ratio (FDR).

1. NPF (Non-Performing Financing)

The Non-Performing Loan (NPF) ratio (NPF) is a ratio used by banks to measure total distributed funds. NPF reflects the quality of a bank's funding and is an important indicator for assessing credit/financial risk in Islamic commercial banks.

NPF formula:

$$\textbf{NPF} = \left(\frac{\text{Total Pembiayaan Bermasalah}}{\text{Total Pembiayaan}}\right) \times 100\%$$

Interpretation of NPF results:

a. NPF ≤ 2%, very healthy
b. 2% < NPF ≤ 5%, quite healthy
c. 5% < NPF ≤ 8%, less healthy
d. NPF > 8%, unhealthy

2. FDR (Financing to Deposit Ratio)

The FDR is a relationship that indicates whether third-party funds (TPF) are successfully distributed in the form of funding. The FDR reflects bank liquidity and the aggressiveness of financial intermediaries.

Formula:

$$\text{FDR} = \frac{\text{Total Pembiayaan yang Disalurkan}}{\text{Total Dana Pihak Ketiga (DPK)}} \times 100\%$$

c. Investment Risk

Investment risk is the possibility that the results achieved from an investment will differ from the expected results.(Jogiyanto, 2014)According to him, there are three indicators of investment risk assessed in a company related to firm value, including:

1. PER (Price Earning Ratio)

The interpretation of the PER value is that the higher the PER value of a company indicates the value that investors are willing to pay for every Rp. 1 of profit generated by the company.(Brigham & Houston, 2014).

Formula:

$$\text{PER} = \frac{\text{Harga Saham}}{\text{Earnings Per Share (EPS)}}$$

2. Stock Return Volatility

This indicator measures stock price fluctuations over a specific period compared to the previous period, typically using the standard deviation of stock returns. High volatility indicates highly volatile stock returns, indicating high investment risk. Conversely, low volatility indicates stable stock returns, indicating low investment risk.

The formula for finding this indicator is:

$$\text{Volatilitas} = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(R_i - \bar{R})^2}$$

- R_i = return saham harian/bulanan ke-i
- $\bar{R}$ = rata-rata return selama periode
- n = jumlah periode pengamatan

3. Beta (β)

This indicator indicates the sensitivity of stock returns to changes in market returns. A value of (β) > 1 indicates high investment risk, while a value of (β) < 1 indicates low investment risk. A value of (β) = 1 indicates risk equal to the market, and a value of (β) < 0 indicates stock returns move in the opposite direction to the market.

The formula for finding this indicator is as follows:

$$\beta = \frac{\text{Cov}(R_i, R_m)}{\text{Var}(R_m)}$$

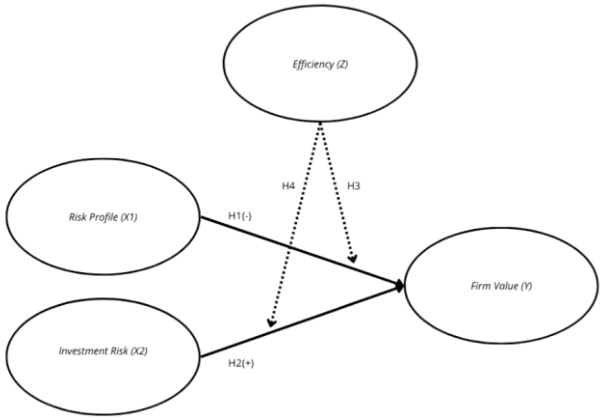
- R_i = return saham individu
- R_m = return pasar (misal: IHSG atau JII)
- Cov = kovarian return saham dan pasar
- Var = variansi return pasar

d. Efficiency

Efficiency is the ability of a device to maximize output from a given input. Efficiency is measured using Frontier's technical approaches, one of which is DEA (Data Envelopment Analysis).(Farrell, 1957). This approach requires an object to be viewed, in this approach the object whose efficiency level will be viewed is called DMU (Decision Making Units).Muharam & Purvitasari (2007)In his research, he stated that to generate efficiency values, each DMU would be assessed for input and output. The inputs in this study were operational expenses and total assets, while the output used was net income.

METHOD

Conceptual Framework



Hypothesis

1. The influence of risk profile on firm value.

The Risk Profile reflects the various types of risks to which business and investment activities are exposed. According toTandelilin (2010)These risks include corporate risk, financial risk, market risk, interest rate risk, inflation risk, liquidity risk, exchange rate risk, and country (political) risk.Olalere et al (2021)In his research, he stated that companies with a good risk profile can influence the increase in the company's firm value. This is also in line with research(Astuti & Djajanti, 2024),(Bijak et al., 2024), And(Murwani & Taufiq, 2022).

H1: Risk Profile has a negative and significant effect on Firm Value

2. The influence of investment risk on firm value.

Investment risk is the possibility that the results achieved from an investment will differ from the expected results. This risk is caused by the uncertainty of the investment, so the actual results may be lower or higher than expected.(Jogiyanto, 2014). In the research conducted bySalehi et al (2022)shows that investment risk has a positive and significant effect on firm value. This result is in line with research by(Jagirani et al., 2023),(Ningsih et al., 2023),(Fitria & Irkhami, 2021), And(Isnaeni et al., 2021).

H2: Investment Risk has a positive and significant effect on Firm Value

3. The influence of risk profile on firm value with efficiency as a moderating variable.

Efficiency is a company's ability to maximize output from a given input. Efficiency is measured using Frontier's technical approaches, one of which is DEA (Data Envelopment Analysis).(Farrell, 1957)This is supported by research(Nikmah & Hung, 2024)And(Watson et al., 2024)which shows a positive and significant impact on firm value. And in research conducted byPampurini et al (2025)efficiency acts as a moderator.

H3: Efficiency plays a moderating role in the influence of risk profile on firm value.

4. The effect of investment risk on firm value with efficiency as a moderating variable.

According to(Berger & Mester, 1997)Efficiency is a performance measure that compares a bank's output with the inputs used by the bank for the purpose of identifying good production units (best practices). This method

is used to analyze non-parametric and parametric frontier efficiency to assess the relative efficiency of banks across countries and periods. Research conducted by(Agustin & Setiawan, 2021)demonstrate efficiency as a moderator.
H4: Efficiency plays a moderating role in the influence of investment risk on firm value.

RESULTS AND DISCUSSION

DEA Test Results

This test uses the DEAP 2.1 application to assess the efficiency of Islamic banking in Indonesia on a scale of 0-1. The inputs are Operating Expenses and Total Assets, while the output is Net Income.

Table 1 Efficiency Value of Islamic Banking in Indonesia

No.	Bank Name	Efficiency Value
1.	Bank Syariah Indonesia	0.4486
2.	BTPN Syariah Bank	0.6567
3.	Panin Dubai Sharia Bank	0.1842
4.	BTN Syariah Bank	0.1776
5.	Danamon Syariah Bank	0.3514
6.	CIMB Niaga Sharia Bank	0.6505
7.	Maybank Syariah Bank	0.2118
8.	Permata Syariah Bank	0.1823
9.	Bank Central Asia Syariah	0.2417
10.	KB Bukopin Syariah Bank	0.2301
11.	Bank Victoria International Sharia	0.7458
12.	Bank Mega Syariah	0.4213

Source: Data processed by researchers, 2025

Table 5.1 above shows that, on average, during the 2021-2025 period, only three banks were moving towards efficiency: Bank BTPN Syariah, Bank CIMB Niaga Syariah, and Bank Victoria International Syariah, with scores approaching 1 or >0.5. Meanwhile, the other banks were inefficient, with efficiency scores approaching 0 or below 0.5 in their management, as determined by the input and output testing established in this study.

Descriptive Statistics

This test was conducted to explain the body of information related to the research sample without drawing any conclusions or explaining the relationships between variables. The results of the descriptive statistical test can be seen in the table.2 below:

Table 2 Descriptive Statistics Results

	Firm Value	**Risk Profile**	**Investment Risk**	**Efficiency**
Mean	0.9918	0.0335	6,2968	0.3752
Median	1.0035	0.0284	0.3296	0.2803
Maximum	2,1728	0.1062	366,2256	1,0000
Minimum	0.4225	0.0011	0.0032	0.0351
Observations	204	204	204	204

Source: Data processed by researchers, 2025

In table 5.2 above it can be seen that forThe average firm value is 0.9918, with a maximum value of 2.1728 and a minimum value of 0.4225. The risk profile variable has an average value of 0.0335, a minimum value of 0.0011, and a maximum value of 0.1062. The average investment risk value is 6.2968, with a maximum value of 366.2256. and a minimum value of 0.0032. The average efficiency value is 0.3752, with a maximum value of 1.0000 and a minimum value of 0.0351.

Best Model Selection

The selection of the best model to be applied to the panel data regression estimation model is carried out after conducting the Chow Test and the Hausman Test. From the results of the Chow Test in table 3 below, the p-value <0.05, namely 0.000. So the best model to be applied to the panel data regression estimation is the FEM model.

Furthermore, from the results of the Hausman Test in table 3 below, the p-value <0.05, namely 0.0329. So the best model to be applied to the results of the Hausman Test is FEM. Based on the results of the Chow Test and the Hausman Test, in this study the model applied to the panel data regression estimation is the FEM model.

Table 3 Chow Test and Hausman Test Results

Effects Test	**Statistics**	**df**	**Prob.**
Cross-section F	26,6307	(11,190)	0.0000
Cross-section Chi-square	190,3045	11	0.0000
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. df**	**Prob.**
Random cross-section	6,0422	2	0.0487

Source: Data processed by researchers, 2025

Classical Assumption Test Results

Testing the classical assumptions in panel data research using the FEM model in regression estimation according to Kuncoro (2013)is the Heteroscedasticity Test and Multicollinearity Test for research with more than 1 independent variable.

a. Heteroscedasticity Test Results

Table 4 Heteroscedasticity Test Results

Heteroskedasticity Test: Glejser		
F-statistic 2,8310	Prob. F(2,201)	0.0613

Source: Data processed by researchers, 2025

Based on the results of the heteroscedasticity test in Table 4, it can be seen that the p-value of the F-statistic > 0.05, namely 0.0613. Therefore, it can be concluded that H1 is rejected and H0 is accepted, meaning the data is free from heteroscedasticity.

b. Multicollinearity Test Results

Table 5 Multicollinearity Test Results

	NPF	**PER**
NPF	1,0000	0.2864
PER	0.2864	1,0000

Source: Data processed by researchers, 2025

Based on the results of the multicollinearity test in Table 5 above, it can be seen that the value between independent variables is <0.9, namely 0.286. From the results above, it can be concluded that H0 is rejected.$_1$and accept H0, namely the independent variable data does not indicate multicollinearity.

Hypothesis Testing

Based on the estimation results of model 1 in table 6, the constant value of Q (firm value) is -0.0113, it can be assumed that if NPF and PER = 0, then the firm value of Islamic banking in Indonesia will be constant at -0.0113. The NPF coefficient value is -0.4563, based on this value, when the NPF measured by NPF decreases by 1%, it will increase the firm value of Islamic banking in Indonesia by 0.45%, if PER is assumed to be constant. Furthermore, the PER coefficient value is 0.0310. Based on this value, when the PER measured by PER increases by 1%, it will increase the firm value of Islamic banking in Indonesia by 0.03%, if NPF is assumed to be constant. Next, estimation model 2 was tested to determine the direct effect of efficiency on firm value. The coefficient of efficiency on firm value was 0.0185, with a p-value of 0.4101 > 0.1. Therefore, a 1% increase in efficiency would increase firm value by 0.0185%, assuming other variables remain constant. However, the direct effect of efficiency on firm value was not significant because the probability value from the test was > 0.1, namely 0.0185.

Model 3 was estimated to examine the relationship between the moderating interaction variables and the independent variables and the dependent variable. The coefficient value of the interaction variable NPF*efficiency on firm value is 3.5971, with a p-value of 0.000 <0.01. This means that a 1% increase in NPF*efficiency will increase firm value by 3.6%, assuming other variables remain constant. The coefficient value of the interaction variable PER*efficiency on firm value is 0.1920. with a p-value of 0.0005 < 0.01. So every 1% increase in PER*efficiency will increase firm value by 0.19% assuming other variables are constant.

Table 6 MRA (Moderated Regression Analysis) Test Results

Variables	Model 1		Model 2		Model 3	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
C	-0.0113	-0.9956	-0.0192	-1.2927	0.0309	1.8920*
NPF	-0.4563	-1.3346				-
			-0.4487	-1.3108	-1.9784	3.9569***
PER	0.0310	2.4259**	0.0336	2.5502**	0.0062	0.4030
EF						-
			0.0185	0.8255	-0.1301	4,3803***
NPF_EF					3.5971	4,3380***
PER_EF					0.1920	3,5556***

Source: Data processed by researchers, 2025
Note: Significance levels of 1%, 5%, and 10% are marked with (***), (**), (*).

Risk Profile to Firm Value

The findings of this study indicate that NPF has a negative and insignificant effect on the firm value of Islamic banking in Indonesia. The insignificant p-value indicates that the level of bank health, as measured by NPF, is not a significant determinant of changes in firm value, although the coefficient value is consistent with the theory, indicating a negative direction. Through the signaling theory approach, public information provided should be directly responded to by the market. However, the findings suggest the possibility that the market does not consider NPF as a primary signal for selecting a company because it is not directly reflected in stock prices. The results of this study are in line with research conducted by (Nurfhadila & Lenap, 2025)And(Halawa et al., 2024)which states that risk profile does not have a significant effect on firm value.

Investment Risk on Firm Value

The findings of this study indicate that PER has a positive and significant effect on the firm value of Islamic banking in Indonesia. The significant p-value indicates that PER is a determining factor in changes in the firm value of Islamic banking in Indonesia. The approach taken through signaling theory, which states that public information should influence the market, aligns with the findings of this study. Investors consider a company's PER value to be the primary signal in determining which shares to purchase. These results align with research conducted by(Isnaeni et al., 2021),(Fitria & Irkhami, 2021),(Salehi et al., 2022),(Jagirani et al., 2023), And(Ningsih et al., 2023)that risk investment has a significant positive effect on firm value.

The Moderating Role of Efficiency on Risk Profile and Firm Value

The findings of this study indicate that efficiency does not have a direct significant effect on firm value, but when interacting with NPF, it has a positive and significant effect on firm value. This indicates that efficiency, through the DEA approach, acts as a pure moderator and successfully moderates the relationship between NPF and firm value. The presence of efficiency as a moderator weakens the relationship between variables, as evidenced by the NPF*efficiency coefficient of 3.5971. This is because Islamic banking is inefficient based on the DEA test results. This finding aligns with the efficiency market theory in semi-strong form, which states that the more efficient a market is, the quicker it will respond to any changes in public information provided. The results of this study align with research conducted by(Pampurini et al., 2025)And(Agustin & Setiawan, 2021). Both studies stated that Efficiency as measured by DEA plays a moderating role in the relationship between independent and dependent variables.

The Moderating Role of Efficiency on Investment Risk and Firm Value

The findings of this study indicate that efficiency does not have a direct significant effect on firm value, but when interacting with PER, it has a positive and significant effect on firm value. This indicates that efficiency, through the DEA approach, acts as a pure moderator and successfully moderates the relationship between PER and firm value. The presence of efficiency as a moderator strengthens the relationship, as evidenced by the PER*efficiency coefficient of 0.1920. This finding aligns with the semi-strong form of efficiency market theory, which states that an efficient market will respond quickly to changes in public information. The results of this study align with research conducted by(Pampurini et al., 2025)And(Agustin & Setiawan, 2021). Both studies stated that

Efficiency as measured by DEA plays a moderating role in the relationship between independent and dependent variables.

Table 7 Hypothesis Conclusion

Hypothesis	Hypothesis Statement	Conclusion
H1	Risk Profile has a negative and significant effect on Firm Value.	Hypothesis Rejected
H2	Investment Risk has a positive and significant effect on Firm Value.	Hypothesis Accepted
H3	Efficiency as a moderator of the relationship between Risk Profile and Firm Value.	Hypothesis Accepted (Pure Moderator)
H4	Efficiency as a moderator of the relationship between Investment Risk and Firm Value.	Hypothesis Accepted (Pure Moderator)

CONCLUSION

Conclusion

1. The risk profile, as measured by the NPF, has a negative and insignificant effect. This means that, despite its negative effect, NPF is not a significant factor in the rise or fall of Islamic banking firm value in Indonesia.
2. Investment risk, as measured by PER, has a positive and significant effect. This means that the better a company's PER, the higher the firm value of Islamic banking in Indonesia.
3. The results of the Efficiency moderation test using the DEA approach act as a pure moderator of the relationship between risk profile and firm value. This means that Efficiency in this study is weak when directly linked to firm value, but it is able to strengthen the previously insignificant relationship between risk profile and firm value in Islamic banking in Indonesia.
4. The results of the DEA moderation test showed that efficiency acts as a pure moderator of the relationship between investment risk and firm value. This means that efficiency in this study is weak when directly linked to firm value, but it is able to strengthen the previously significant relationship between investment risk and firm value in Islamic banking in Indonesia.

Suggestion

1. Although the risk profile measured through the NPF in this study is not a factor that can influence the rise or fall of firm value, it should still be considered to maintain an NPF value below 5%. This not only demonstrates the bank's commitment to the Financial Services Authority (OJK), but also demonstrates the health of Islamic banking to customers and investors.
2. The investment risk value, measured by the PER (Per Share Price Index), must be increased to enhance firm value. However, management should maintain the PER within normal limits, taking into account the EPS (Earnings Per Share) value. This is to prevent investors from perceiving the company as overvalued or with high investment risk, which could discourage them from investing in Islamic banking.
3. Based on research findings, efficiency plays a moderating role in strengthening the relationship between risk profile and investment risk and firm value. This makes it imperative for Islamic banking management to streamline banking operations in an effort to increase firm value.

Furthermore, referring to the results of this study, theoretically the researcher suggests the following:

1. For further researchers, other variables that are related can be used to influence firm value, such as dividend policy, earnings quality, financial performance, GCG, and investment policy.
2. Further researchers can also expand the research object, such as looking at Islamic banking in ASEAN or Islamic shares on the IDX, to produce more complex understanding and research results.
3. Future researchers can also observe investor behavior when faced with financial reports, stock price movements, and company valuations, especially sharia stocks.

REFERENCES

Agustin, R., & Setiawan, R. (2021). Diversifikasi Internasional Dan Kinerja Perusahaan Manufaktur Di Indonesia Dengan Efisiensi Sebagai Variabel Moderasi. Jurnal Muara Ilmu Ekonomi Dan Bisnis, 5(2), 373–383.

Astuti, I. P., & Djajanti, A. (2024). Pengaruh Risk Profile, Good Corporate Governance, Earning, dan Capital (RGEC) Terhadap Nilai Perusahaan pada Industri Perbankan di Indonesia Tahun 2016-2022. Jurnal Ilmiah Ekonomi Bisnis, 29(3), 442–459. http://e-journal.uajy.ac.id/30501/%0Ahttp://e-journal.uajy.ac.id/30501/2/1903 24946 1.pdf

Berger, A. N., & Mester, L. J. (1997). Inside the black box: What explains differences in the efficiencies of financial institutions? Journal of Banking and Finance, 21(7), 895–947. https://doi.org/10.1016/S0378-4266(97)00010-1

Bijak, A., Soemantri, R., & Soenaria, S. R. (2024). Pengaruh Tingkat Kesehatan Bank Terhadap Firm Value Dengan CSR Expenditure Sebagai Variabel Moderasi. Owner, 8(2), 1528–1538. https://doi.org/10.33395/owner.v8i2.2063

Brigham, E. F., & Houston, J. F. (2014). Dasar-dasar Manajemen Keuangan (11th ed.). Salemba Empat.

Farrel, M. (1957). The Measurement Of Production Efficiency. Journal of the Royal Statistical Society, 120(3), 253–290.

Fitria, D., & Irkhami, N. (2021). Ukuran Perusahaan Sebagai Pemoderasi Pengaruh Struktur Modal, Profitabilitas, dan Islamic Social Reporting Terhadap Nilai Perusahaan Pada Bank Umum Syariah. Jurnal Ilmiah Ekonomi Islam, 7(03), 1629–1643.

Gumanti, T. A., & Utami, E. S. (2002). Bentuk Pasar Efisiensi Dan Pengujiannya. Jurnal Akuntansi Dan Keuangan, 4(1), 54–68.

Halawa, J., Nasution, F. N., & Fachrudin, K. A. (2024). Analysis the Effect of Company Size, Profitability, Capital Structure and Risk Profile on Firm Value with Dividend Policy as a Moderating in Banking on the Indonesia Stock Exchange (2013-2022). International Journal of Current Science Research and Review, 07(04), 2230–2244. https://doi.org/10.47191/ijcsrr/v7-i4-27

Isnaeni, W. A., Santoso, S. B., Rachmawati, E., & Santoso, S. E. B. (2021). Pengaruh Profitabilitas, Pertumbuhan Perusahaan, Ukuran Perusahaan Dan Struktur Modal Terhadap Nilai Perusahaan. Review of Applied Accounting Research (RAAR), 1(1), 1–11.

Jagirani, T. S., Chee, L. C., & Kosim, Z. B. (2023). Relationship between financial risks and firm value: A moderating role of capital adequacy. Investment Management and Financial Innovations, 20(1), 293–303. https://doi.org/10.21511/imfi.20(1).2023.25

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3(4), 305–360.

Jogiyanto. (2014). Teori Portofolio dan Analisis Investasi (8th ed.). BPFE.

Kuncoro, M. (2013). Metode Riset Untuk Bisnis dan Ekonomi: Bagaimana Meneliti dan Menulis Tesis (1st ed.). Erlangga.

Muharam, H., & Purvitasari, R. (2007). Analisis Perbandingan Efisiensi Bank Syariah dengan Metode Data Envelopment Analysis (periode tahun 2005). Jurnal Ekonomi Dan Bisnis Islam, 2(3).

Murwani, J., & Taufiq, A. R. (2022). Tingkat Kesehatan Bank : Pendekatan Risk Based Bank Rating terhadap Nilai Perusahaan. Jurnal Riset Dan Akuntansi, 6, 4272–4283. https://doi.org/10.33395/owner.v6i4.1215

Nikmah, C., & Hung, R. J. (2024). The impact of ASEAN economic community, firm characteristics and macroeconomics on firm performance and firm value: An investigation of Shariah-compliant firms in Indonesia. Heliyon, 10(11), e32740. https://doi.org/10.1016/j.heliyon.2024.e32740

Ningsih, M. S., Nurcholisah, K., & Pramono, I. P. (2023). Pengaruh Kualitas Laba terhadap Nilai Perusahaan Perbankan Syariah di Jakarta Islamic Index. Jurnal Riset Akuntansi, 31–38. https://doi.org/10.29313/jra.v3i1.1769

Nurfhadila, N., & Lenap, I. P. (2025). The Effect of Islamic Social Reporting (ISR), Bank Risk , and Capital Structure on Firm Value. 4(3), 1019–1030.

OJK. (2008). UU No. 21 Tahun 2008. In OJK. https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/MT_Globalization_Report_2018.pdf%0Ahttp://eprints.lse.ac.uk/43447/1/India_globalisation, society and inequalities(lsero).pdf%0Ahttps://www.quora.com/What-is-the

OJK. (2016). PENILAIAN TINGKAT KESEHATAN BANK UMUM. In Otoritas Jasa Keuangan (4/POJK.03/).

OJK.

Olalere, O. E., Islam, M. A., Yusof, W. S., Ariffin, K. H. K., & Kamruzzaman, M. (2021). The moderating role of financial innovation on financial risks, business risk and firm value nexus: Empirical evidence from Nigeria. AIP Conference Proceedings, 2339(May). https://doi.org/10.1063/5.0045082

Pampurini, F., Quaranta, A. G., & Onorato, G. (2025). Does efficiency matter in M&A of FinTech firms? Research in International Business and Finance, 78, 1–11. https://doi.org/10.1016/j.ribaf.2025.103027

Perwataatmadja, A., Karnaen, & Antonio, S. (1992). Apa dan Bagaimana Bank Syariah,. Dana Bhakti Wakaf.

Putri, K. A. (2025). Begini Gerak Saham Perbankan usai IHSG Anjlok dan Trading Halt. Infobanknews.Com, April. https://infobanknews.com/begini-gerak-saham-perbankan-usai-ihsg-ambles-dan-trading-halt/

Rosyid, M. F., Saraswati, E., & Ghofar, A. (2022). Firm Value: CSR Disclosure, Risk Management And Good Corporate Governance Dimensions. Jurnal Reviu Akuntansi Dan Keuangan, 12(1), 186–209. https://doi.org/10.22219/jrak.v12i1.18731

Salehi, M., Zimon, G., Arianpoor, A., & Gholezoo, F. E. (2022). The Impact of Investment Efficiency on Firm Value and Moderating Role of Institutional Ownership and Board Independence. Journal of Risk and Financial Management, 15(4). https://doi.org/10.3390/jrfm15040170

Sasongko, A. (2025). Dampak terhadap Kepercayaan Investor dan Stabilitas Ekonomi. Kemenkeu. https://djpb.kemenkeu.go.id/kppn/jakarta6/id/data-publikasi/berita-terbaru/2912-dampak-penurunan-ihsg-terhadap-pendapatan-dan-pengeluaran-pemerintah.html

Schaik. (2001). Islamic Banking. The Arab Bank Review, 3(1).

Sundari, F., & Sugiyanto. (2023). Peranan Kepemilikan Manajerial sebagai pemoderasi Risk Investment Dan Kebijakan Utang Terhadap Nilai Perusahaan. Jurnal Ilmiah Wahana Pendidikan, 9(25), 360–376.

Tandelilin, E. (2010). Portofolio dan Investasi: Teori dan Aplikasi (Pert). Penerbit Kanisius.

Watson, J., How, J., & Verhoeven, P. (2024). Hedge fund activism, R&D efficiency and firm value. Research in International Business and Finance, 71, 1–20. https://doi.org/10.1016/j.ribaf.2024.102494