 Doi: http://doi.org/10.33650/at-turas.v13i2.15105

Diah Triwijayanti[1], Imam Khusnudin[2]

DETERMINANTS OF PROFITABILITY IN AN INDONESIAN SHARIA INSURANCE COMPANY: The Role of RBC, Claim Ratio, and Tabarru' Fund Underwriting Surplus

[1,2]Universitas KH. Mukhtar Syafaat, Indonesia
Email: diaht1159@gmail.com[1*]

Received:
2026-04-21

Received in revised form:
2026-05-20

Accepted:
2026-05-30

Available online:
2026-06-12

Abstract: *The growth of the Islamic insurance industry in Indonesia has increased the importance of financial performance as an indicator of sustainability, participant protection, and institutional stability. However, despite the positive profitability trend within the Islamic insurance industry, Sun Life Financial Indonesia Sharia Unit recorded a negative average Return on Assets (ROA) during the observation period. This condition indicates the existence of internal financial management challenges that require further empirical investigation. Therefore, this study aims to analyze the effect of Risk-Based Capital (RBC), Claim Ratio, and Tabarru' Fund Underwriting Surplus on Return on Assets (ROA) at Sun Life Financial Indonesia Sharia Unit. This study employed a quantitative explanatory approach using monthly financial statement data from April 2023 to October 2025, resulting in 31 observations. The data were analyzed using multiple linear regression with a bootstrap method to address non-normal data distribution and enhance the robustness of parameter estimation. The findings reveal that partially, Risk-Based Capital and Tabarru' Fund Underwriting Surplus do not have a significant effect on ROA, while Claim Ratio has a significant positive effect on ROA. Simultaneously, all independent variables significantly affect ROA. These findings suggest that claim management plays a more dominant role in determining profitability compared to capital adequacy and underwriting surplus management. This study contributes to the literature on Islamic insurance financial performance by providing empirical evidence through the use of monthly financial data and bootstrap regression analysis. Practically, the findings emphasize the importance of effective claim management, prudent risk governance, and efficient tabarru' fund management in maintaining financial stability and improving profitability in Islamic insurance companies.*

Keywords: *Sharia Insurance; Return on Assets; Risk-Based Capital; Claim Ratio; Tabarru' Fund; Financial Performance; Indonesia.*

INTRODUCTION

The Islamic insurance industry in Indonesia has shown a dynamic growth trend in line with the increasing public demand for financial protection solutions that comply with sharia principles. Sharia insurance operates based on the principles of mutual assistance (ta'awun), justice, and prudence in managing participants' funds, requiring companies to maintain stability and sustainable financial performance ba (Azizah, 2025). The development of the Islamic insurance industry requires companies to maintain sound financial performance in order to ensure business sustainability and preserve stakeholders' trust. Weak financial performance in Islamic insurance institutions may reduce public trust and hinder corporate sustainability. This condition highlights the importance of effective risk management in maintaining the financial stability of insurance companies (Lam, 2014).

The capacity of a business entity to optimize resources in order to generate profits while fulfilling its financial obligations can be monitored through financial performance indicators (Widarjono et al., 2022). In the insurance industry, profitability is generally measured by *Return on Assets* (ROA), which shows how effectively a company uses all of its assets to generate profits (Hasibuan et al., 2020). Empirically, the profitability of the Islamic life insurance industry can be seen from data published by the supervisory authority. According to Financial Services Authority (OJK) data, although the total assets of the Islamic life insurance sector declined from IDR 9.10 trillion in 2022 to IDR 8.63 trillion in 2023, the industry's ROA remained positive and increased from 12.00% to 12.59% (OJK, 2023). This positive industry performance contrasts sharply with the situation at Sun Life Financial Indonesia Syariah Unit. Based on financial reports for the research period, Sun Life Syariah actually recorded a negative average ROA of -0.0094. This gap between positive industry profitability and negative company performance is the main reason for conducting this research.

This condition shows that financial performance in Islamic insurance is not solely influenced by general industry developments, but also by how companies manage the assets and funds entrusted to them by participants. The management of company assets and funds in the Islamic economy is not only oriented towards achieving economic goals. These activities also carry moral responsibility because they are regarded as a trust that must be accounted for. This principle is in line with the words of Allah SWT in QS. An-Nisa verse 58:

إِنَّ اللَّهَ يَأْمُرُكُمْ أَنْ تُؤَدُّوا الْأَمَانَاتِ إِلَىٰ أَهْلِهَا

"Indeed, Allah commands you to convey the trust to those who are entitled to receive it." (QS. An-Nisa: 58)

This perspective emphasizes that the management of sharia insurance participants' funds has inherent ethical and moral dimensions, so that financial performance is not only oriented towards profit optimization, but also reflects accountability and responsibility in the management of participants' funds.

In the operational practices of Islamic insurance companies, measurable risk and financial management are important aspects of maintaining the corporate health.

Therefore, the financial performance of Islamic insurance companies is influenced by various internal factors, particularly those related to risk management through *risk-based capital* and the company's capital structure (Lestari & Meldona, 2025). One of the main indicators that reflects a company's financial resilience is *Risk-Based Capital* (RBC), which shows the company's ability to absorb potential losses arising from operational risks and claims (Supriyono, 2019).

Financial Services Authority (OJK) data reveals that the RBC ratio for the national Islamic insurance industry stayed exceptionally robust at 466.20% in 2022 and 458.79% in 2023, despite experiencing a slight decline and remaining well above the minimum limit of 120% set by the regulator (OJK, 2023). An adequate RBC level reflects strong solvency and provides room for companies to carry out their operational activities in a sustainable manner, as sufficient capital allows companies to remain stable in the face of risk fluctuations and claim burdens (Fadilah & Zakaria, 2025). In the regulatory context, the Financial Services Authority requires sharia insurance companies to meet a minimum solvency level of 120% as an effort to maintain financial system stability and protect the interests of participants (OJK, 2016).

In addition to adequate capital, the way companies manage claims also plays a major role in determining their financial performance. The Claim Ratio describes the proportion of claims paid by companies to participants compared to income earned in a certain period (Suwarni et al., 2023). Based on OJK data, gross claims for tabarru' funds nationally increased from IDR 2.84 trillion in 2022 to IDR 3.45 trillion in 2023, indicating pressure on claims in the industry (OJK, 2023). This condition shows fluctuations in claims that must be managed carefully so as not to have a negative impact on the company's profitability. In line with the perspective of Kasmir (2019) regarding financial ratio analysis, this indicator serves as a crucial early warning system instrument to evaluate financial health and assess the extent to which management is effective in controlling the company's operational risks.

Beyond financial factors, a company's ability to manage risk also plays an important role in influencing the financial performance of Islamic insurance. From an Islamic perspective, risk management is carried out based on the principles *of ta'awun* (mutual assistance) and *takaful* (mutual support), so that the surplus formed is not solely oriented towards profit, but towards balance and fairness among participants. The Tabarru' Fund Underwriting Surplus reflects the results of risk management in maintaining a balance between participant contributions and claims paid in the tabarru' fund. This fund is a grant from participants for the common good and is managed in accordance with sharia principles by avoiding *gharar*, *maysir*, and *riba*. Proper underwriting allows companies to control participant risk, thereby maintaining fund stability and preventing excessive losses (Dzaki, 2020) . In practice, underwriting is used to measure the success rate of risk management and the ability of the tabarru' fund to bear existing risks (Martana & Karim, 2022). The more effective the risk management based on sharia principles, the greater the opportunity for the formation of a Tabarru' Fund Underwriting Surplus, which ultimately has the potential to increase the company's profitability.

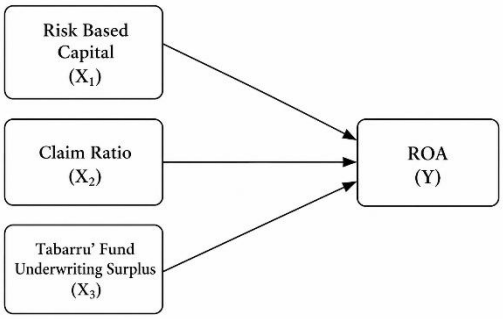
Effective risk management is an important factor in maintaining the financial stability of insurance companies. Risk management theory emphasizes the importance of identifying, measuring, and controlling risks in order to minimize potential losses that could disrupt the company's financial performance (Lam, 2014). In the context of Islamic insurance, risk control is reflected through capital adequacy (Risk-Based Capital), claims management, and the company's ability to generate underwriting surplus. Risk-Based Capital acts as an indicator for assessing the company's financial stability and its ability to meet commitments to participants (Martana & Karim, 2022). An adequate RBC level indicates a healthy financial condition, enabling the company to better bear the risks it faces and maintain profit stability. Thus, the tabarru' fund theseunderwriting results are an important indicator in assessing the company's success in managing risk as a whole.

In addition, signaling theory explains that the financial information disclosed by companies serves as a signal for stakeholders in assessing the condition and performance prospects of companies (Spence, 1973). Capital adequacy, claims ratio, and underwriting surplus are indicators that reflect the quality of a company's risk management. A positive underwriting surplus signals that the company is able to maintain financial balance and manage risk effectively, thereby potentially driving improved financial performance as measured by Return on Assets (ROA).

Although numerous studies have examined capital adequacy, claim ratios, and tabarru' fund underwriting surplus in relation to financial performance, previous research findings remain inconsistent. Several studies found that Risk-Based Capital positively affects profitability and financial performance, whereas other studies reported that RBC does not significantly affect Return on Assets (ROA). These inconsistencies may be influenced by differences in observation periods, analytical methods, company conditions, and governance quality.

Macroeconomic conditions and regulatory dynamics may also contribute to variations in financial performance. In addition, studies simultaneously examining Risk-Based Capital, Claim Ratio, and Tabarru' Fund Underwriting Surplus in Islamic insurance companies, particularly using monthly financial data, remain limited. Therefore, this study aims to analyze the effect of Risk-Based Capital, Claim Ratio, and Tabarru' Fund Underwriting Surplus on the financial performance of Sun Life Financial Indonesia Syariah Unit. This study is also expected to contribute theoretically to the development of literature on Islamic insurance financial performance, practically as a consideration for improving corporate risk governance, and methodologically through the use of monthly financial data and bootstrap regression analysis.

Figure 1. Shows the Conceptual Framework



RESEARCH METHOD

This research employs a quantitative approach featuring a causal design to investigate the cause-and-effect relationships among the examined variables. As stated by Noor (2016), quantitative research is a method rooted in positivist philosophy, applied to specific populations or samples to test pre-established hypotheses. Causal research seeks to identify the influence or causal links between two or more variables.

The object of this study was Sun Life Financial Indonesia Syariah Unit. This company was selected because, during the observation period, it recorded a negative average Return on Assets (ROA), despite the Islamic insurance industry in Indonesia generally experiencing positive profitability growth. Therefore, Sun Life Financial Indonesia Syariah Unit represents an interesting case for examining the determinants of financial performance in Islamic insurance institutions.

The data examined in this research consists of secondary quantitative information obtained from the monthly financial statements of Sun Life Financial Indonesia Syariah Unit. The research population includes all available financial reports from this unit. Samples were selected using purposive sampling, namely by using complete monthly financial reports for the observation period. The research period was set from April 2023 to October 2025. The observation period resulted in 31 monthly observations. Monthly financial data were selected because they provide a more detailed representation of short-term financial fluctuations and risk management dynamics compared to annual data. The data collection process was carried out through the documentation method, namely by compiling financial reports officially published by the company. The dependent variable in this study was financial performance, which was proxied using Return on Assets (ROA). ROA was used as a proxy for financial performance because it reflects the company's ability to generate profits from its total assets. The ROA calculation in this study was expressed using the following formula:

$$ROA = \frac{Net\ Income}{Total\ Assets}\ x\ 100\%$$

The variables Risk-Based Capital (RBC), Claim Ratio, and Tabarru' Fund Underwriting

Surplus were obtained directly from the company's monthly financial reports. Data were analyzed using multiple linear regression to examine the impact of Risk-Based Capital (RBC), Claim Ratio, and Tabarru' Fund Underwriting Surplus on financial performance. Prior to conducting the regression analysis, the model underwent classical assumption tests, such as normality, multicollinearity, heteroscedasticity, and autocorrelation. The data processing was executed using SPSS (Ghozali, 2018). The normality test results indicated that the residual data were not normally distributed. Therefore, this study employed the bootstrap method to obtain more robust parameter estimates without relying on normality assumptions. Bootstrap is a resampling technique performed by repeatedly drawing samples with replacement from the original data to estimate standard errors and confidence intervals (Efron & Tibshirani, 1994). This method is considered appropriate for studies with relatively small sample sizes and non-normal data distributions because it can improve the stability of regression estimation results. This study applied 5,000 bootstrap resamplings at a significance level of 5% to strengthen statistical inference and reduce estimation bias.

Despite its contributions, this study has several limitations. First, this study only focused on one Islamic insurance company, which may limit the generalizability of the findings to the broader Islamic insurance industry. Second, the use of secondary financial data depends on the accuracy and completeness of company reports. Third, financial performance may also be influenced by other internal and external factors beyond the variables examined in this study, such as operational efficiency, investment returns, macroeconomic conditions, governance quality, and regulatory dynamics.

RESULTS AND DISCUSSION

Descriptive Analysis

The descriptive analysis results for the variables Return on Assets (ROA), Risk-Based Capital (RBC), Claim Ratio, and Underwriting Surplus of Tabarru' Funds are presented in Table 1 below:

Table 1. Descriptive Analysis Results

	N	Min	Maximum	Mean	Std. Deviation
RBC	31	1.77	2.82	2.2865	.29051
Claim Ratio	31	.32	.62	.5110	.06510
S_Underwriting	31	5.53	10.23	9.1138	1.08141
ROA	31	-.13	.02	-.0100	.03744

Based on Table 1, the average Risk-Based Capital (RBC) value is 2.2865**,** the Claim Ratio is 0.5110, the Tabarru' Fund Underwriting Surplus is 9.1138, and the Return on Assets (ROA) is -0.0100. Specifically, the RBC variable has a minimum value of 1.77 (177%) and a maximum value of 2.82 (282%) with a standard deviation of 0.29051. The mean RBC value of 228.65% indicates that the company's capital adequacy consistently remained

above the minimum solvency threshold of 120% established by the Financial Services Authority (OJK), although the company still recorded a negative average ROA during the observation period. This finding suggests that high solvency levels do not necessarily correspond with positive profitability. For the Claim Ratio variable, the values range from a minimum of 0.32 to a maximum of 0.62 with a standard deviation of 0.06510, where the mean value of 0.5110 demonstrates that the paid claim expense ratio accounts for 51.10% of the contribution income. The Tabarru' Fund Underwriting Surplus variable records a minimum value of 5.53 and a maximum value of 10.23 with a standard deviation of 1.08141. Meanwhile, the ROA variable shows a minimum value of -0.13 and a maximum value of 0.02 with a standard deviation of 0.03744, where the negative mean value (-0.0100) reflects that the Sharia Business Unit generally experienced a profitability contraction during the observation period from April 2023 to October 2025.

Normality Test

The normality test assesses whether the regression model's residuals conform to a normal distribution. In this research, the evaluation was performed via the Kolmogorov–Smirnov test at a 5% significance level. The residuals are considered to meet the normality assumption if the significance value exceeds 0.05.

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test	
	Unstandardized Residual
Asymp. Sig. (2-tailed)	.000[c]

Based on the test results in Table 2, the Asymp. Sig. (2-tailed) value is 0.000 < 0.05. This finding indicates that the residual data are not normally distributed. Therefore, subsequent regression analysis was conducted using the bootstrap method to obtain more robust parameter estimates. The non-normal distribution of residuals may be attributed to the characteristics of monthly time-series data, which tend to exhibit short-term fluctuations with a relatively limited sample size (N = 31). To address this issue, this study employed a bootstrap resampling procedure with 5,000 iterations. This approach generates empirical standard errors and confidence intervals directly from the observed data, thereby providing more reliable statistical inference despite violations of the normality assumption.

Multicollinearity Test

Multicollinearity testing was performed to check for high correlations among the independent variables within the regression model. Multicollinearity was detected using the Tolerance and Variance Inflation Factor (VIF) indicators. The regression model is deemed free from multicollinearity when the Tolerance value exceeds 0.10 and the VIF value is below 10.

Table 3. Multicollinearity Test Results

Model	Collinearity Statistics

		Tolerance	VIF
1	(Constant)		
	RBC	.832	1.202
	Claim_Ratio	.858	1.165
	S_Underwriting	.966	1.035

Based on the test results presented in Table 3, All independent variables exhibit Tolerance values exceeding 0.10 and VIF values below 10. Therefore, it can be concluded that the regression model in this study is free from multicollinearity issues. This indicates that each independent variable provides different information within the regression model, meaning that no excessively strong linear relationship exists among the independent variables. This condition is important because it results in more stable and reliable regression coefficient estimates. Conceptually, Risk-Based Capital (RBC) reflects the company's solvency and capital adequacy, the Claim Ratio represents claims management efficiency, while the Tabarru' Fund Underwriting Surplusreflects the effectiveness of tabarru' fund management and risk-sharing mechanisms in Islamic insurance operations. Therefore, although these variables are related to the financial management activities of Islamic insurance companies, each variable captures different dimensions of risk management and financial performance. The relatively low VIF values also indicate that each independent variable contributes independently to explaining variations in Return on Assets (ROA). This condition strengthens the validity of the causal analysis in this study because the effect of each independent variable can be identified more clearly without distortion caused by excessive correlations among the independent variables.

Heteroscedasticity Test

The heteroscedasticity test evaluates whether the variance of residuals in the regression model remains constant or varies. In this research, the assessment was performed using the Glejser method. The regression model is considered free from heteroscedasticity if the significance value for each variable exceeds 0.05.

Table 4. Heteroscedasticity Test Results

Model		Sig.
1	(Constant)	.190
	RBC	.924
	Claim Ratio	.581
	S_Underwriting	.214

Based on the test results presented in Table 4, all independent variables have a significance value above 0.05. Thus, the regression model shows no indication of heteroscedasticity. This indicates that the residual variance tends to remain constant, so the regression estimates can be considered relatively stable and reliable. The absence of

heteroscedasticity strengthens the credibility of the estimated effects of Risk-Based Capital (RBC), Claim Ratio, and the Tabarru' Fund Underwriting Surplus on Return on Assets (ROA), because the relationships among variables can be interpreted more consistently. In the context of Islamic insurance, this finding also indicates that fluctuations in the company's financial indicators during the observation period remained relatively manageable despite the use of monthly data. Nevertheless, the relatively limited sample size (N = 31) may reduce the sensitivity of the Glejser test in detecting heteroscedasticity. Therefore, the bootstrap approach was additionally employed to support the robustness of the regression analysis and provide more reliable statistical inference.

Autocorrelation Test

The autocorrelation test checks for correlations between residuals from one period and those from the prior period within the regression model. In this research, the test was conducted using the Run Test method to evaluate residual randomness. The regression model is deemed free of autocorrelation if the significance value (Asymp. Sig.) exceeds 0.05.

Table 5. Autocorrelation Test Results

Run Test	
	Unstandardized Residual
Asymp. Sig. (2-tailed)	.468

The test results show an Asymp. Sig. (2-tailed) value of 0.468 > 0.05. This indicates that the residuals are randomly distributed and there is no particular pattern between observation periods. Therefore, it can be concluded that the regression model does not contain autocorrelation and is suitable for hypothesis testing. The absence of autocorrelation indicates that fluctuations in the company's financial performance are not influenced by residual errors from previous periods, thereby supporting more consistent regression estimates over time. This study employed the Run Test because it is considered more flexible for data that do not fully satisfy classical assumptions, particularly normality, compared to the more commonly used Durbin–Watson test for time-series data. Nevertheless, the relatively limited number of observations (N = 31) remains a limitation of this study. Therefore, the bootstrap approach was additionally applied to strengthen the robustness of the regression analysis.

Simultaneous Test (F Test)

The simultaneous test (F-test) is used to assess whether the regression model as a whole is valid for use, namely by seeing whether the independent variables collectively influence the dependent variable. The test outcomes are evaluated by comparing the computed F value with the F-table value, while considering the significance level at 5%. The model is considered significant if the computed F value surpasses the F-table value and the significance level is less than 0.05.

Table 6. Simultaneous Test Results (F)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.024	3	.008	12.259	.000[b]
	Residual	.018	27	.001		
	Total	.042	30			

Based on the test results presented in the table above, the significance value in the F test was 0.000 < 0.05, indicating that the independent variables simultaneously affect the dependent variable. These findings suggest that the regression model is capable of explaining variations in Return on Assets (ROA) through the combined influence of Risk-Based Capital (RBC), Claim Ratio, and Tabarru' Fund Underwriting Surplus. Simultaneously, these three variables reflect the aspects of solvency, claims management, and the effectiveness of tabarru' fund management, which play important roles in maintaining the financial sustainability of Islamic insurance companies. This finding is consistent with risk management theory, which emphasizes the importance of risk control and financial stability in improving company performance. In addition, signaling theory explains that a company's ability to maintain capital adequacy, control claim expenses, and effectively manage tabarru' funds may provide positive signals regarding the company's financial condition to stakeholders. Nevertheless, the contribution of each independent variable to ROA is not always identical in terms of both the direction of influence and the level of significance. These differences may be influenced by the company's operational conditions, fluctuations in claim burdens, and the effectiveness of tabarru' fund management during the observation period.

Determination Coefficient Test

The coefficient of determination is used to see how much the independent variables can explain the changes in the dependent variables in the regression model. This measure is shown through the R Square value, which is the percentage of variation in the dependent variable that can be explained by the independent variables used. Meanwhile, the part of the variation that cannot be explained by the model is influenced by other factors outside the study.

Table 7. Results of the Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.759[a]	.577	.530	.02568

The analysis results indicate an R Square value of 0.577, meaning that 57.7% of the variation in the dependent variable is accounted for by the independent variables included in the model. The remaining 42.3% is affected by other factors beyond the study's variables. These findings indicate that the regression model possesses moderately strong explanatory power in explaining variations in financial performance. In the context of Islamic insurance, this explanatory level suggests that solvency, claims management, and tabarru' fund management play substantial roles in influencing company profitability and

financial sustainability. Therefore, the model can be considered sufficiently reliable to describe the relationship between the selected financial indicators and ROA. Nevertheless, the unexplained variation indicates that financial performance in Islamic insurance companies is also affected by other internal and external factors, such as operational efficiency, investment returns, corporate governance, macroeconomic conditions, regulatory policies, and participant growth. These factors may contribute to variations in ROA beyond the scope of the variables examined in this study and provide opportunities for future research development.

Partial Test (t-test) with the Bootstrap Method

The partial test (t-test) examines the individual impact of each independent variable on the dependent variable, enabling the identification of each variable's contribution within the regression model. In this study, testing was performed using the bootstrap method because the research data did not fully meet the assumption of normality. The bootstrap method is a resampling technique used to estimate parameters and standard errors without relying on the assumption of normal distribution (Efron & Tibshirani, 1994) . Bootstrap is performed by repeatedly resampling the original data with replacement, resulting in an empirical distribution of regression coefficients. This approach is considered more robust and capable of providing more reliable estimation results, especially for limited sample sizes or data that are not normally distributed (Rachman et al., 2018).

This study utilized a bootstrap procedure with 5,000 resamplings conducted at a 5% significance level. Partial test conclusions are based on the significance values obtained from bootstrapping, whereby an independent variable is considered to exert a partial influence if its significance value falls below 0.05. Results of the t-test employing the bootstrap approach are displayed in the table that follows.

Table 8. Partial Test Results (t-test) using the Bootstrap Method

			Bootstrap[a]				
						95% Confidence Interval	
Model		B	Bias	Std. Error	Sig. (2-tailed)	Lower	Upper
1	(Constant)	-.253	.002	.049	.003	-.355	-.165
	RBC	-.015	.001	.015	.323	-.045	.009
	Claim Ratio	.451	-.021	.086	.002	.251	.572
	S_Underwriting	.005	.001	.006	.224	-.002	.023

The table above presents the results of the parameter significance test (t-test) using the bootstrap method with 5,000 repetitions. The decision is based on the bootstrap significance value (Sig. 2-tailed) at a significance level of 5%. The results of the partial testing of each variable are as follows:

a. *Risk-Based Capital* has a significance value of 0.323 > 0.05, which indicates that Risk-Based Capital does not partially affect financial performance.

b. *Claim Ratio* has a significance value of 0.002 < 0.05. This result indicates that Claim Ratio has a partial effect on financial performance.

c. *Tabarru' Fund Underwriting Surplus* has a significance value of 0.224 > 0.05, indicating that the Tabarru' Fund Underwriting Surplus has no partial effect on financial performance.

The insignificant effects of Risk-Based Capital (RBC) and Tabarru' Fund Underwriting Surplus indicate that capital adequacy and underwriting performance were not the primary determinants of profitability during the observation period. In contrast, Claim Ratio significantly affected financial performance, suggesting that claims management played a more dominant role in influencing profitability in Islamic insurance companies. In addition, the bootstrap confidence intervals indicate relatively stable coefficient estimates, thereby supporting the robustness of the regression results despite the limited sample size and non-normal data distribution.

The Effect of Risk-Based Capital (RBC) on Financial Performance (ROA).

The results of this research indicate that the Risk-Based Capital (RBC) variable does not serve as a primary influencer of financial performance variations among the studied entities. This is an interesting finding because, conceptually, strong capital should provide flexibility for companies to expand. However, the bootstrap regression results show a significance value of 0.323 > 0.05, indicating that the contribution of RBC to ROA variation is minimal. This phenomenon is explained through the lens of Risk Management Theory, wherein RBC's primary role is highlighted as a preventive measure. The focus is on maintaining a healthy level of capital to remain solvent in order to protect customer funds, not merely to drive short-term profitability (Suwarni et al., 2023).

From a risk management theory perspective, capital adequacy serves as a buffer against potential unexpected losses. This is in line with the concept in Risk Management and Insurance, which explains that insurance company capital acts as *a safety cushion* to maintain solvency and ensure the ability to meet long-term obligations (Rejda et al., 2020). Furthermore, Risk Management emphasizes that the main objective of risk management is to maintain the stability and sustainability of the business in the long term, not merely to pursue short-term profits (Fahmi, 2018).

There is a research gap when these findings are compared with those of Tresnawati et al. (2022), which found a positive contribution of RBC to financial performance. This finding may indicate that Islamic insurance companies tend to prioritize solvency stability and regulatory compliance over aggressive profit-oriented capital allocation. As a result, capital adequacy may not directly translate into higher profitability during the observation period. This interpretation is consistent with Supriyono (2019), who emphasizes the importance of prudence and sharia compliance in the management of Islamic financial institution assets.

In addition, the company's RBC position during the observation period remained above the minimum standard established by the OJK (120%), indicating that capital adequacy was primarily maintained to fulfill regulatory requirements and preserve financial stability. This finding is consistent with previous studies suggesting that capital adequacy in insurance institutions primarily functions as a solvency protection mechanism aimed at maintaining long-term financial stability rather than maximizing short-term profitability (Cummins & Weiss, 2014). This condition may explain why fluctuations in RBC did not significantly contribute to changes in ROA. Furthermore, financial performance may also be influenced by other factors beyond RBC, such as investment returns, operational efficiency, claim management, and macroeconomic conditions. The uniqueness of this analysis lies in the use of monthly data, which shows that capital fluctuations are more focused on meeting OJK regulations (minimum 120%) than on short-term profit-enhancing strategies (Siswanto & Hasanah, 2019).

The Effect of Claim Ratio on Financial Performance (ROA)

Empirical data show that the claim ratio plays the most crucial role in influencing company profits, as evidenced by a significance value of 0.002, which is below the threshold of 0.05. Unlike other variables, the Claim Ratio can clearly explain the ups and downs of a company's ROA because claim expenses are a major cost component in insurance operations (Azizah & Sari, 2025). Effective claim management is essential in maintaining the financial sustainability of insurance institutions because inefficient claim handling may increase operational risk and reduce profitability (Yusuf & Babalola, 2009). Theoretically, this reinforces Signaling Theory, where claims management signals to the market the quality of underwriting and the efficiency of a company's risk management (Rashid & Jabeen, 2016).

In insurance management theory, it is explained that the balance between premium income and claim payments is a major factor in determining a company's profit level. This is in line with the explanation in Insurance Management, which states that the stability of an insurance company's profits is greatly influenced by its ability to manage the ratio of premiums to claims (Darmawi, 2006). In addition, Signaling Theory also states that management can send signals to the market through published information to reduce information asymmetry (Spence, 1973).

Uniquely, this study found a positive effect indicating that an increase in claims actually coincided with an increase in ROA. This finding may indicate that premium income growth and operational efficiency were still able to offset the increase in claim expenses during the observation period. As a result, increasing claims did not necessarily suppress profitability, but instead reflected increased business activity accompanied by growth in premium income. The claim ratio during the research period also remained within manageable limits, allowing the company to maintain financial stability despite rising claim obligations.

Nevertheless, continuous increases in claim expenses may potentially threaten profitability if premium growth slows or operational efficiency declines. Therefore,

effective claims management remains an important factor in maintaining the long-term financial sustainability of Islamic insurance companies.

This finding also addresses the research gap regarding the debate on whether technical reserves can absorb the impact of claims without affecting the profitability (Azizah & Sari, 2025) . While several previous studies reported a negative relationship between Claim Ratio and financial performance, this study demonstrates that the impact of claims may vary depending on the company's ability to manage premium income, operational efficiency, and tabarru' funds effectively. In the context of Sun Life Unit Syariah, the findings indicate that claim expenses remain the most sensitive variable, but are still in line with profit growth due to premium efficiency. This confirms that in Islamic insurance, the management of tabarru' funds is not only a matter of ethics, but is also at the heart of the company's financial stability (IFSB, 2009).

The Effect of Tabarru' Fund Underwriting Surplus on Financial Performance (ROA)

The bootstrap analysis results show that the Tabarru' Fund Underwriting Surplus is not a significant determinant of ROA, with a significance value of 0.224 > 0.05 and a low standard beta. This finding provides perspective in Risk Management Theory, because classically, risk management through the underwriting process is expected to maintain a balance between contributions and claims and improve the financial performance of the company (Lam, 2014). Risk management theory explains that the process of identifying, measuring, and controlling risk is carried out to minimize potential losses and maintain the company's financial stability. This is in line with the concept in corporate theory which emphasizes the importance of risk control mechanisms to maintain business sustainability (Jensen & Meckling, 1976) . Furthermore, in the practice of Islamic insurance, the underwriting surplus of tabarru' funds reflects the difference in the results of tabarru' fund management after deducting claims and related expenses, thus becoming an indicator of successful risk management (Dzaki, 2020).

In this context, the author emphasizes that in the short term, fluctuations in claims, contribution dynamics, and the dominance of investment income can cause underwriting surpluses not to be directly reflected in ROA. Furthermore, in the sharia insurance mechanism, the Tabarru' Fund Underwriting Surplus does not entirely become company profit because it can be reallocated to participants or retained as reserves, so its contribution to company profitability is not always direct. There is a clear research gap between these findings and the studies Dzaki (2020) and Rodiyah et al, (2025) which state that underwriting results have a positive impact on profitability. The author argues that this difference arises because underwriting surplus in the entities studied plays more of a role as an instrument for stabilizing tabarru' funds and maintaining risk balance, rather than as a mechanical determinant for boosting short-term profitability. This finding may indicate that underwriting surplus in the observed entity functioned more as an instrument for maintaining fund stability and balancing risk rather than as a direct determinant of short-term profitability. Previous studies on takaful institutions also indicate that efficient

underwriting and fund management contribute to better financial sustainability and operational performance (Saad et al., 2006).

In addition, the insignificant effect may also be influenced by methodological limitations, such as the relatively short observation period, the limited number of observations, and the use of a single company as the research object. These conditions may limit the model's ability to capture the long-term contribution of underwriting surplus to financial performance. Furthermore, underwriting surplus may influence profitability indirectly through financial stability, reserve adequacy, or investment performance rather than directly through ROA. Operational efficiency and investment return volatility may also contribute to weakening the statistical relationship between underwriting surplus and financial performance during the observation period.

From a sharia perspective, managing the underwriting surplus of tabarru' funds is a form of fulfilling the mandate to manage participants' collective funds. This is in line with Allah's words in Surah An-Nisa' verse 58, which commands that the mandate be conveyed to those who are entitled to it and determined fairly. In the context of Sharia insurance, the company acts as a fund manager that must maintain balance and fairness among participants through careful risk control.

Conceptually, risk management oriented towards business stability and sustainability is part of good risk management practices in financial institutions (Lam, 2014). Thus, the underwriting surplus of tabarru' funds not only reflects financial performance, but also represents the implementation of the principles of trust and prudence in maintaining the stability of participant funds.

CONCLUSION

Based on the objectives and results of the study, it can be concluded that the financial performance of Sun Life Financial Indonesia Sharia Unit is influenced by internal factors related to risk management and operations. Risk-Based Capital has not become a major determining factor in improving financial performance because capital adequacy functions more as a mechanism for protecting solvency and meeting regulatory requirements than as a driver of short-term profitability. In contrast, the Claim Ratio has been shown to significantly influence the company's financial performance, as claims represent a key element in Sharia insurance activities that directly impact the stability of company funds and profitability. Meanwhile, the Tabarru' Fund Underwriting Surplus has not shown a significant contribution to financial performance because underwriting surplus plays a greater role as an indicator of the effectiveness of risk management and fund balance than as a direct determinant of short-term Return on Assets (ROA) improvement. In addition, the underwriting surplus of tabarru' funds does not entirely become company profit because it can be reallocated to participants or retained as reserves, so its impact on profitability is not always directly reflected in ROA. Overall, the combination of capital adequacy, claims management, and the ability to generate underwriting surpluses remains an important foundation in maintaining the stability and sustainability of the financial

performance of Islamic insurance companies. Based on the results of this study, sharia insurance companies are expected to focus more attention on effective and efficient claims management as a key effort to improve financial performance, without neglecting the principle of prudence in managing participant risks. In addition, capital adequacy and selective management of tabarru' underwriting surplus funds need to be maintained and strengthened as instruments for protecting solvency and maintaining long-term fund stability. For further research, it is recommended that the scope of the research be expanded, the observation period be extended, and other relevant variables such as premium growth, investment returns, and operational efficiency be considered in order to provide a more comprehensive picture of the determinants of Islamic insurance financial performance.

This study has several limitations that should be acknowledged. First, the research is conducted using a single-company case study, namely Sun Life Financial Indonesia Sharia Unit, which may limit the generalizability of the findings to other Islamic insurance companies. Second, the observation period is relatively limited, which may not fully capture long-term financial performance dynamics. Third, the number of explanatory variables is still restricted, so other important determinants of financial performance may not be fully represented in the model. Therefore, the interpretation of the results should be made with caution, particularly when extending the findings to a broader Islamic insurance context. In addition, this study contributes to the literature on Islamic insurance and risk management by empirically examining the relationship between risk-based capital, claim ratio, and tabarru' fund underwriting surplus on financial performance. The study also provides methodological contributions by employing monthly financial data, which allows for a more detailed observation of financial dynamics, as well as the use of bootstrap analysis techniques that provide more robust and reliable estimation results compared to conventional approaches.

REFERENCES

Azizah, N. (2025). Literature review pengaruh risk-based capital terhadap kinerja keuangan perusahaan asuransi. *Seminar Nasional Pariwisata dan Kewirausahaan (SNPK)*, *4*, 863–868.

Azizah, N., & Sari, R. P. (2025). The effect of risk-based capital and claim ratio on the financial performance of insurance companies. *Indonesian Interdisciplinary Journal of Sharia Economics (Iijse)*, *8*(2), 6589–6599.

Cummins, J. D., & Weiss, M. A. (2014). Systemic risk and the U.S. insurance sector. *Journal of Risk and Insurance*, *81*(3), 489–528. https://doi.org/10.1111/jori.12039.

Darmawi, H. (2006). *Manajemen asuransi*. Bumi Aksara.

Dzaki, N. A. (2020). Pengaruh premi, investasi, klaim dan underwriting terhadap profitabilitas perusahaan asuransi jiwa syariah di indonesia tahun 2014-2018.

Jurnal Ilmiah Mahasiswa FEB, *9*(01).

Efron, B., & Tibshirani, R. J. (1994). *An introduction to the bootstrap*. Chapman & Hall/CRC. https://doi.org/10.1201/9780429246593

Fadilah, A., & Zakaria, M. A. (2025). Pengaruh risk based capital terhadap profitabilitas pada perusahaan asuransi jiwa syariah. *Wadiah: Jurnal Perbankan Syariah*, *9*(2), 258–286. https://doi.org/10.30762/wadiah.v9i2.2431.

Fahmi, I. (2018). *Manajemen risiko: teori, kasus dan solusi*. Alfabeta.

Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25* (9th ed.). Badan Penerbit Universitas Diponegoro.

Hasibuan, A. F. P., Sadalia, I., & Muda, I. (2020). The effect of claim ratio, operational ratio and retention ratio on profitability performance of insurance companies in Indonesia Stock Exchange. *International Journal of Research and Review*, *7*(3), 223–231.

Islamic Financial Services Board. (2009). *Guiding principles on governance for takaful (islamic insurance) undertakings (IFSB-8)*. Islamic Financial Services Board.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Kasmir. (2019). *Analisis laporan keuangan*. PT Rajagrafindo Persada.

Lam, J. (2014). *Enterprise risk management: From incentives to controls* (2nd ed.). Wiley.

Lestari, N. D., & Meldona. (2025). Risk-based capital and takaful insurance performance: The moderating role of firm size. *Online Journal of Islamic Management and Finance*, *5*(2), 129–144.

Martana, I. N. A., & Karim, N. K. (2022). Pengaruh underwriting ratio , premium stability ratio dan risk based capital terhadap kinerja keuangan pada perusahaan asuransi yang terdaftar di BEI periode 2018-2022. *Jurnal RISMA*, *4*(1), 144–158. https://doi.org/10.29303/risma.v4i1.1017.

Noor, J. (2016). *Metodologi penelitian: skripsi, tesis, disertasi dan karya ilmiah*. Kencana Prenada Media Group.

Otoritas Jasa Keuangan. (2016). *Peraturan otoritas jasa keuangan nomor 55/POJK.03/2016 tentang penerapan tata kelola bagi bank umum syariah dan unit usaha syariah*.

Otoritas Jasa Keuangan. (2023). *Statistik perasuransian 2023*.

Rachman, F. P. A. P., Goejantoro, R., & Hayati, M. N. (2018). Penentuan jumlah replikasi bootstrap menggunakan metode pretest pada independent sampel t test. *Jurnal Eksponensial*, *9*(1), 35–40.

Rashid, A., & Jabeen, S. (2016). Analyzing performance determinants: Conventional versus Islamic banks in Pakistan. *Borsa Istanbul Review*, *16*(2), 92–107.

https://doi.org/10.1016/j.bir.2016.03.002

Rejda, G. E., McNamara, M. J., & Rabel, W. H. (2020). *Principles of risk management and insurance* (14th ed.). Pearson Education.

Rodiyah, S., Fatoni, A., Sultan, U., & Tirtayasa, A. (2025). Determinan profitabilitas asuransi umum syariah. *Jurnal Masharif Al-Syariah: Jurnal Ekonomi dan Perbankan Syariah*, *10*(3), 2027–2049. https://doi.org/10.30651/jms.v10i3.26865.

Saad, N. M., Majid, M. S. A., Yusof, R. M., Duasa, J., & Rahman, A. R. A. (2006). Measuring efficiency of insurance and takaful companies in Malaysia using data envelopment analysis (DEA). *Review of Islamic Economics*, *10*(2), 5–26.

Siswanto, E., & Hasanah, R. M. (2019). Kinerja keuangan perusahaan asuransi jiwa konvensional di Indonesia. *Jurnal Ekonomi Modernisasi*, *15*(1), 43–57. https://doi.org/10.21067/jem.v15i1.3055.

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, *87*(3), 355–374. https://doi.org/10.2307/1882010

Supriyono, A. E. (2019). Pengaruh risk based terhadap profitabilitas pada perusahaan asuransi syariah. *Jurnal Aktiva: Riset Akuntansi dan Keuangan*, *1*(1), 26–37. https://doi.org/10.52005/aktiva.v1i1.17.

Suwarni, K., Ulupui, I. G. K. A., & Khairunnisa, H. (2023). Pengaruh rasio ews dan rbc terhadap kinerja keuangan perusahaan asuransi yang terdaftar di BEI tahun 2015-2019. *Jurnal Akuntansi, Perpajakan dan Auditing*, *4*(1), 15–32. https://doi.org/10.21009/japa.0401.02.

Tresnawati, Yudhy, & Nur'aeni. (2022). Pengaruh premi, hasil underwriting dan rbc terhadap roa pada asuransi syariah yang terdaftar di OJK periode 2016-2020. *Jurnal Dimamu*, *1*(2), 215–219. https://doi.org/10.32627/dimamu.v1i2.480.

Widarjono, A., Salandra, A., Susantun, I., & Ruchba, S. M. (2022). Determinants of Indonesian Islamic bank profitability: Lessons from the BRI Syariah case. *Jurnal Ilmiah Ekonomi Islam*, *8*(03), 3127–3135.

Yusuf, T., & Babalola, A. (2009). Control of insurance fraud in Nigeria: an exploratory study. *Journal of Financial Crime*, *16*(4), 418–435. https://doi.org/10.1108/13590790910993677