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JOSEM: Journal of Sustainable and Economic Management

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Determinants of Solvency: Evidence from Sharia Life Insurance in Indonesia

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Article History:

Received : 2026-02-13
Revised : 2026-04-16
Accepted : 2026-04-22
Published : 2026-05-01

Keywords:

Claim expense ratio, Retention ratio, Early warning system, Solvency, Sharia life insurance.

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Paper type:

Research

Abstract

Purpose – This study aims to examine the effect of early warning system ratios, specifically the claim expense ratio and retention ratio, on the solvency level of sharia life insurance companies in Indonesia during the period 2020–2024. Solvency is measured using the risk based capital approach.

Methodology – his study employs a quantitative approach using panel data analysis. The sample consists of 26 sharia life insurance companies registered with the Financial Services Authority (OJK). The data are analyzed using descriptive statistics, Chow test, Hausman test, and hypothesis testing through t-test and F-test.

Findings – The results indicate that the claim expense ratio has a negative and significant effect on solvency ($p = 0.0283$), while the retention ratio has a positive and significant effect ($p = 0.0246$). Simultaneously, both variables significantly influence solvency ($p = 0.011285$). However, the explanatory power of the model is relatively low, with an adjusted R^2 of approximately 15%, indicating that other factors also play an important role in determining solvency.

Implications – These findings suggest that insurance companies should improve claim management efficiency and implement optimal risk retention strategies to maintain financial stability.

Originality – This study provides empirical evidence on the relationship between early warning system ratios and solvency in the context of sharia life insurance in Indonesia using recent panel data.

Introduction

In line with the continuous development of economic activities, individuals are inevitably exposed to various uncertainties that may lead to financial losses. These risks, ranging from material losses to life-threatening events, require effective risk management mechanisms to minimize potential negative impacts. One of the most widely used instruments to manage such risks is insurance.

Insurance plays a significant role in the financial system, particularly as part of non-bank financial institutions. In Indonesia, the insurance industry holds the second-largest market share after banking and dominates the non-bank financial sector. However, despite its importance, the development of sharia insurance still lags behind conventional insurance.

The development of sharia insurance in Indonesia has progressed rapidly after the government issued a deregulation policy in the 1980s (Ramadhan et al., 2025). Sharia Life Insurance is a form of protection that not only prioritizes economic principles but also upholds Islamic values, such as mutual assistance (ta'awun), responsibility, and justice.

The development of sharia insurance in Indonesia can be observed from the number of companies operating under sharia principles, as presented in Table 1.

Table 1. Number of Insurance Companies with Sharia Principles in Indonesia

Type of Company	2020	2021	2022	2023	2024
Life Insurance Companies with Sharia Principles	7	7	8	9	9
General Insurance Companies with Sharia Principles	5	6	6	6	6
Sharia-based Reinsurance Companies	1	1	1	1	1
Life Insurance Companies with Sharia Units	23	23	21	21	20
General Insurance Companies with Sharia Units	21	20	19	19	19
Reinsurance companies with Sharia units	3	3	3	3	3
Total	60	60	58	59	58

Source: (www.ojk.go.id)

As shown in Table 1, the number of sharia based insurance companies tends to fluctuate during the period 2020–2024, with a relatively limited number compared to the overall insurance industry. This indicates that the growth of sharia insurance is still not optimal and requires stronger financial performance and increased public trust.

Compared to conventional insurance, Islamic insurance still lags far behind. According to a release by the Financial Services Authority (OJK) in 2017, Islamic insurance assets amounted to only Rp. 34.3 trillion, while conventional insurance assets reached 958.06 trillion. The market share of sharia insurance is still low, at only 3.45% of all insurance (Safira et al., 2022). However, in middle 2019, the growth of conventional life insurance in Indonesia tended to decline. Many factors contributed to this decline. One of the causes was the loss of public trust due to the failure of Jiwasraya and AJB Bumiputera to pay customer claims. According to CNBC Indonesia, as of September 2019, Jiwasraya is losses amounted to IDR 13.74 trillion, and its risk-based capital ratio as of September 2019 also plummeted to minus 805%. However, based on Financial Services Authority (OJK) Regulation No.7/POJK.O5/2015 concerning the Financial Health of Insurance and Reinsurance Companies, the minimum risk-based capital for insurance companies is 120%. Therefore, Jiwasraya is currently facing lawsuits from its customers (Desirella, 2022).

In the insurance industry, knowledge about the financial condition of insurance companies can be very important. This is because insurance companies sell insurance products in the form of guarantees provided to insurance companies. This must be borne by the insurance company against risks that may arise from the principal burden guaranteed in the insurance contract. Therefore, one factor that can increase customer confidence in insurance companies is the financial health of the insurance company. Insurance companies are considered capable of fulfilling all their obligations through evidence that their financial condition exceeds their total obligations when managing their business through assets and capital strength (Simbolon et al., 2021).

Good governance according to Islam is based on Islamic Corporate Governance indicators. Corporate governance is one way for companies to demonstrate that their internal conditions meet corporate governance standards (Kurniawan et al., 2024). One of the main indicators for assessing a company is health is its solvency ratio. Solvency measures the extent to which a company is able to meet its financial obligations to insurance participants. According to PMK RI No.53/PMK.010/2012, insurance companies are required to have a minimum risk based capital level of 120%. Companies that fail to maintain an adequate level of solvency are at high risk of bankruptcy, loss of public trust, and revocation of their business licenses (Awrasya et al, 2021). One of the key indicators used to assess the financial health of insurance companies is solvency. Solvency reflects the company is ability to meet its financial obligations to policyholders and is commonly measured using the risk-based capital approach. According to regulatory standards, insurance companies are required to maintain a minimum risk-based capital level of 120%. Failure to maintain adequate solvency levels may lead to serious consequences, including loss of public trust, financial distress, and potential revocation of operating licenses.

To evaluate financial performance and detect potential financial problems at an early stage, the insurance industry adopts the early warning system, developed by the National Association of Insurance Commissioners (NAIC). This system utilizes several financial ratios as indicators of performance and risk. Among these, the claim expense ratio and retention ratio are particularly important. The claim expense ratio reflects the proportion of claims relative to premiums, indicating the efficiency of claim management, while the retention ratio measures the extent to which an insurance company retains risk rather than transferring it to reinsurers, reflecting its risk management strategy.

Several previous studies have examined the relationship between early warning system ratios and solvency. For example, [Lisdiyanti \(2021\)](#) found that the claim expense ratio has a significant effect on solvency, while [Ningsih et al. \(2021\)](#) reported that the retention ratio significantly influences solvency levels. In addition, [Emaras et al. \(2024\)](#) showed that early warning system ratios simultaneously affect the financial performance of insurance companies. However, other studies such as [Mawardani et al. \(2024\)](#) reported that the claim expense ratio does not have a significant effect on solvency. These mixed findings indicate that the relationship between early warning system ratios and solvency is still inconclusive.

From the perspective of signaling theory, financial ratios serve as signals of a company's financial condition to stakeholders. A higher claim expense ratio may signal inefficiency and increased risk exposure, potentially reducing solvency. In contrast, an optimal retention ratio may signal strong risk management and financial stability, thereby improving solvency. However, prior studies have not fully integrated this theoretical perspective in explaining empirical results.

Moreover, previous research has several limitations. First, most studies focus on conventional insurance companies, with limited attention given to sharia life insurance, which operates under different principles such as risk-sharing (ta'awun) and ethical considerations. Second, many studies rely on short observation periods or cross-sectional data, which may not adequately capture dynamic financial conditions. Third, differences in measurement and model specification may contribute to inconsistent findings.

Therefore, this study aims to fill these gaps by examining the effect of the claim expense ratio and retention ratio on the solvency level of sharia life insurance companies in Indonesia using panel data over the period 2020–2024. By focusing on a specific institutional context and employing a longer observation period, this study is expected to provide more robust and context-relevant empirical evidence.

Based on the inconsistencies in previous findings and the limitations of prior studies, this study formulates the following research questions: 1) Does the claim expense ratio significantly affect the solvency level of sharia life insurance companies in Indonesia?, 2) Does the retention ratio significantly affect the solvency level of sharia life insurance companies in Indonesia?, 3) Do the claim expense ratio and retention ratio simultaneously affect the solvency level of sharia life insurance companies in Indonesia?

Literature Review

Signaling Theory

Signaling theory, introduced by [Spence \(1973\)](#), explains how information asymmetry between stakeholders can be reduced through signals conveyed by informed parties (Spence, 1973). In financial contexts, companies use financial indicators to communicate their performance and stability to external stakeholders. These signals are particularly important in industries characterized by uncertainty and long-term contractual obligations, such as insurance ([Simbolon et al., 2021](#)).

In the insurance sector, financial ratios function not only as performance indicators but also as mechanisms that shape stakeholder expectations regarding a company's risk exposure and financial resilience. Therefore, signaling theory provides a relevant analytical framework for understanding how financial performance indicators relate to solvency.

Sharia Insurance in a Global Context

Sharia insurance (takaful) operates based on the principles of mutual cooperation (ta'awun), risk sharing, and ethical financial management ([Sula, 2024](#)). Unlike conventional insurance, which emphasizes risk transfer, takaful redistributes risk among participants. This fundamental difference affects how financial risks are managed and how solvency is maintained. The implementation of sharia insurance in Indonesia is regulated under Law No. 40 of 2014 and Financial Services Authority regulations such as [POJK No. 72/POJK.05/2016](#) and [POJK No. 69/POJK.05/2016](#) (Financial Services Authority, 2016a; 2016b). These frameworks ensure that insurance companies maintain financial health and solvency.

However, previous studies show that most research still focuses on conventional insurance, while sharia insurance remains underexplored ([Safira et al., 2022](#)).

Early Warning System and Solvency

The early warning system is widely used to assess the financial condition of insurance companies and detect potential financial distress ([Fadrul et al., 2019](#)). This system utilizes financial ratios derived from financial statements to evaluate performance and risk.

Solvency is a key indicator of financial health, reflecting a company's ability to meet its long-term obligations ([Awasya et al., 2021](#)). In Indonesia, solvency is measured using the risk-based capital approach, with a minimum standard of 120% ([Ministry of Finance, 2012](#)).

Previous studies indicate that early warning system ratios play an important role in explaining solvency, although their effectiveness varies across contexts and industries ([Simbolon et al., 2021](#)).

Claim Expense Ratio in Insurance Studies

The claim expense ratio reflects the proportion of claims relative to premium income and serves as an indicator of underwriting performance and claim management efficiency ([Lisdiyanti et al., 2021](#)). Mechanistically, an increase in this ratio reduces underwriting surplus, which directly limits the company's ability to accumulate capital reserves.

Empirical studies show mixed results. Some studies find that the claim expense ratio significantly affects solvency ([Lisdiyanti et al., 2021](#); [Emaras et al., 2024](#)), while others report no significant effect ([Mawardani et al., 2024](#)). These differences suggest that the relationship depends on factors such as risk management practices, company size, and financial structure.

Retention Ratio in Insurance Studies

The retention ratio measures the extent to which an insurance company retains risk rather than transferring it to reinsurers. This ratio reflects the company's risk management strategy and capital utilization ([Ningsih et al., 2021](#)). Empirical findings also show inconsistent results. Some studies find that retention ratio has a significant effect on solvency ([Ningsih et al., 2021](#)), while others suggest that its effect depends on capital adequacy and reinsurance strategy ([Jamil et al., 2024](#)).

This indicates that the relationship between retention and solvency is conditional and influenced by firm-specific and external factors.

Hypotheses

The claim expense ratio reflects the proportion of claims relative to premium income and directly affects underwriting surplus ([Lisdiyanti et al., 2021](#)). Higher claim expenses reduce financial reserves and may weaken solvency ([Emaras et al., 2024](#)). Although some studies find a significant relationship, others report insignificant results ([Mawardani et al., 2024](#)), indicating that the effect may vary depending on company characteristics.

H1: The claim expense ratio has a negative and significant effect on the solvency level of sharia life insurance companies.

The retention ratio reflects the extent to which an insurance company retains risk and influences both premium income and risk exposure ([Ningsih et al., 2021](#)). Higher retention may improve solvency through increased capital accumulation, but it may also increase financial risk. Empirical findings suggest that the effect of retention depends on capital adequacy and risk management strategy ([Jamil et al., 2024](#)).

H2: The retention ratio has a positive and significant effect on the solvency level of sharia life insurance companies.

Financial ratios collectively provide a more comprehensive explanation of solvency compared to individual indicators ([Fadrul et al., 2019](#)). Previous studies also show that early warning system ratios simultaneously influence financial performance ([Emaras et al., 2024](#)).

H3: The claim expense ratio and retention ratio simultaneously have a significant effect on the solvency level of sharia life insurance companies.

Research Methods

This study employs a quantitative research approach using panel data analysis. Quantitative research is used because the variables examined can be measured numerically and analyzed statistically to determine the effect of early warning system ratios on the solvency level of sharia life insurance companies in Indonesia. The data used in this study are secondary data obtained from the annual financial statements of sharia life insurance companies registered with the Financial Services Authority (OJK) during the period 2020–2024 ([Rusli, 2024](#)).

The population of this study consists of sharia insurance companies registered in the OJK Sharia Non-Bank Financial Industry directory during 2020–2024. The population includes full-fledged sharia life insurance companies and conventional life insurance companies that operate sharia business units. Based on OJK data, the total population comprises 29 companies.

This study uses purposive sampling, which is a sampling technique based on specific criteria relevant to the research objectives ([Rusli, 2024](#)). The criteria used in this study are as follows:

- Sharia life insurance companies registered with the Financial Services Authority in 2020–2024.
- Sharia life insurance companies that published annual financial reports during the period 2020–2024.

Table 2. Number of Sharia Life Insurance Companies in the Sample

No	Company Name
1	PT Asuransi Takaful Keluarga
2	PT Asuransi Jiwa Syariah Al-Amin
3	PT Asuransi Jiwa Syariah Amanahjiwa Giri Artha
4	PT Asuransi Jiwa Syariah Jasa Mitra Abadi
5	PT Asuransi Syariah Keluarga Indonesia
6	PT Asuransi Jiwa Syariah Bumiputera
7	PT Capital Life Syariah
8	PT AIA Financial
9	PT Asuransi Allianz Life Indonesia
10	PT Asuransi BRI Life
11	PT Asuransi Jiwa Central Asia Raya
12	PT Asuransi Jiwa Manulife Indonesia
13	PT Asuransi Simas Jiwa
14	PT Asuransi Jiwa Sinar Mas MSIG
15	PT Avrist Assurance
16	PT Axa Mandiri Financial Services
17	PT BNI Life Insurance
18	PT Great Eastern Life Indonesia
19	PT Panin Daichi Life
20	PT Sun Life Financial Indonesia
21	PT Tokio Marine Life Insurance Indonesia
22	PT Chubb Life Assurance
23	PT PFI Mega Life Insurance
24	PT Asuransi Jiwa Reliance Indonesia
25	PT Asuransi Jiwa Generali Indonesia
26	PT Prudential Sharia Life Assurance

Source: (IKNB Syariah Directory Data)

Based on these criteria, 26 companies were selected as the research sample. Therefore, this study uses a balanced panel dataset consisting of 26 cross-sectional units and 5 years of observation (2020–2024). Panel data combines cross-sectional and time-series data, enabling more comprehensive analysis of variations across companies and over time ([Rusli, 2024](#)).

Solvency level reflects the company's ability to meet its long-term obligations and is measured using the Risk-Based Capital (RBC) approach. In Indonesia, the minimum solvency standard is 120% ([Ministry of Finance, 2012](#)).

$$\text{Risk Based Capital (RBC)} = \frac{\text{Actual Solvency Level}}{\text{Minimum Required Solvency Level}} \times 100\% \quad (1)$$

Solvency is a key indicator of financial health, indicating whether an insurance company has sufficient capital to cover risks ([Awrasya & Kusumaningtias, 2021](#)).

$$\text{Claim Expense Ratio} = \frac{\text{Claim Expenses}}{\text{Net Premium Income}} \times 100\% \quad (2)$$

The claim expense ratio measures the proportion of claims relative to premium income and reflects the efficiency of claim management ([Lisdiyanti et al., 2021](#)). A higher claim expense ratio indicates that a larger portion of premium income is used to cover claims, which may reduce underwriting surplus and affect financial stability ([Emaras et al., 2024](#)).

$$\text{Retention Ratio} = \frac{\text{Net Premium}}{\text{Gross Premium}} \times 100\% \quad (3)$$

The retention ratio measures the proportion of risk retained by the company compared to the total risk accepted and reflects risk management strategy ([Ningsih et al., 2021](#)). A higher retention ratio indicates greater risk retention, which may strengthen solvency if supported by adequate capital but may increase financial risk if not properly managed ([Jamil et al., 2024](#)).

To analyze the effect of the claim expense ratio and retention ratio on solvency, this study uses a panel data regression model as follows

$$Y_{it} = \alpha + \beta_1 X1_{it} + \beta_2 X2_{it} + \epsilon_{it} \quad (4)$$

In this model, Y_{it} represents the solvency level (risk-based capital) of company i in year t . The term α denotes the constant, while β_1 and β_2 represent the regression coefficients of the independent variables. The variable $X1_{it}$ refers to the claim expense ratio of company i in year t , and $X2_{it}$ represents the retention ratio of company i in year t . The term ϵ_{it} is the error term capturing other factors not included in the model. In addition, i denotes the cross sectional unit (company), and t indicates the time period of observation, which spans from 2020 to 2024.

The data analysis in this study consists of several stages. First, descriptive statistical analysis is conducted to describe the characteristics of the data, including mean, median, maximum, minimum, and standard deviation. Second, panel data estimation model selection is carried out using the Chow test and Hausman test. The Chow test is used to determine whether the Common Effect Model (CEM) or Fixed Effect Model (FEM) is more appropriate. If the probability value is less than 0.05, FEM is selected. The Hausman test is then used to determine whether FEM or Random Effect Model (REM) is more appropriate. If the probability value is less than 0.05, FEM is chosen ([Rusli, 2024](#)). Third, classical assumption tests are conducted, including the multicollinearity test and heteroscedasticity test. Multicollinearity is indicated when the correlation between independent variables exceeds 0.80, while heteroscedasticity is identified when the probability value is less than 0.05 ([Rusli, 2024](#)). Fourth, hypothesis testing is conducted using: 1) t-test to examine the partial effect of each independent variable; 2) F-test to examine the simultaneous effect of independent variables.

Finally, the coefficient of determination (Adjusted R^2) is used to measure how much variation in solvency can be explained by the independent variables ([Fadrul et al., 2019](#)).

Results and Discussion

Results

Table 3. Descriptive Statistical Test Results

Variable	Mean	Median	Maximum	Minimum	Std. Dev
XI	43.83192	40.60000	96.38000	10.0000	23.79900
X2	38.59000	35.69500	88.16000	10.00	18.63361
Y	68.25531	67.76000	98.33000	25.83	18.78309

Source: (Processed Eviews 13 output)

Based on Table 3, the solvency level (RBC) has an average value of 68.25%, indicating that, on average, sharia life insurance companies operate below the regulatory benchmark of 120%. This suggests that the financial strength of the sampled companies is relatively moderate and may require improvement in capital adequacy.

The claim expense ratio has a mean value of 43.83%, with a relatively high standard deviation (23.79), indicating substantial variation in claim management efficiency across companies. This variation reflects differences in underwriting quality and risk exposure. Meanwhile, the retention ratio shows an average value of 38.59%, suggesting that companies tend to transfer a significant portion of risk to reinsurers rather than retaining it internally. This indicates a relatively conservative risk management strategy.

Table 4. Chow Test Estimation

Effect test	Statistic	d.f.	Prob.
Cross-section	1.867809	(25,102)	0.0156
Chi-square	49.000371	25	0.0028

Source: (Eviews 13 output processed)

Based on Table 4 (Chow Test), the probability value is 0.0028 (< 0.05), indicating that the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model. Furthermore, Table 5 (Hausman Test) shows a probability value of 0.0258 (< 0.05), confirming that the Fixed Effect Model is preferred over the Random Effect Model. Therefore, the regression analysis uses the Fixed Effect Model (FEM).

Hausman Test

Table 5. Hausman Test Estimation

Effect test	Chi-sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.315917	2	0.0258

Source: (Eviews 13 output processed)

The Eviews 13 output shows that the cross-section random probability value of 0.0258 is smaller than the significance level of 0.05. Thus, the appropriate method used in panel data estimation is *the fixed effect model* (FEM).

Table 6. Multicollinearity Test Results

	X1	X2
X1	1.0000	0.179798
X2	0.179798	1.00000

Source: (Processed Eviews 13 output)

Based on the output results from the multicollinearity test above, the multicollinearity test results show that the correlation value between the independent variables tested is less than 0.80, namely 0.179798, which means that there is no multicollinearity.

Table 7. Heteroscedasticity Test Results

Variable	Prob.
C	0.0000
X1	0.8521
X2	0.1052
Cross-section fixed (dummy variables)	
Prob(F-Statistic)	0.222310

Source: (Processed Eviews 13 output)

Based on the regression results using the White method, all probability values above variable X1 are 0.8521 and variable X2 are 0.1052, and the F value is 0.222310, which is greater than the significance level of 0.05. This indicates that the *fixed effect* model avoids the problem of heteroscedasticity.

Table 8. Fixed Effect Model (FEM) Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	65.03957	6.719008	9.679937	0.0000
X1	-0.203435	0.091459	-2.224330	0.0283
X2	0.314400	0.137759	2.282244	0.0246

Source: (Processed Eviews 13 output)

Based on the regression results, the claim expense ratio (X1) is found to have a negative and statistically significant effect on solvency, as indicated by a probability value of 0.0283, which is below the 0.05 significance level. This result implies that an increase in claim expenses relative to premium income reduces the company's underwriting surplus, thereby weakening its capital position and overall solvency. On the other hand, the retention ratio (X2) shows a positive and statistically significant effect on solvency, with a probability value of 0.0246, also below 0.05. This finding suggests that higher risk retention enables companies to retain a greater portion of premium income, which can enhance capital accumulation and improve financial stability. Therefore, both variables play a significant role in explaining the solvency level of sharia life insurance companies, albeit through different financial mechanisms.

Table 9. Coefficient of Determination

R-squared	0.335296
Adjusted R-squared	0.159345

Source: (Eviews 13 output processed)

Based on Table 9, the Adjusted R^2 value is 0.159345, indicating that approximately **15% of the variation in solvency** can be explained by the claim expense ratio and retention ratio. The remaining 85% is influenced by other variables outside the model.

Table 10. Results of Simultaneous Significance Test (F-Test)

F-statistic	1.905620
Probability (p-value)	0.011285

Source: (Eviews 13 output processed)

Based on Table 10, the probability value of the F-statistic is **0.011285 (< 0.05)**, indicating that the independent variables simultaneously have a significant effect on solvency. The decision is based on the probability value (Prob > F), where a value less than 0.05 indicates statistical significance.

Discussion

The Effect of The Claim Expense Ratio on Solvency Level

The results indicate that the claim expense ratio has a negative and significant effect on solvency. This finding suggests that higher claim expenses reduce underwriting surplus, which directly weakens the company's capital position (Lisdiyanti et al., 2021). From a causal perspective, claim payments represent a major operational cost in insurance companies. When claim expenses increase, the portion of premium income available for capital accumulation decreases, thereby reducing the company's ability to maintain adequate solvency levels (Emaras et al., 2024).

However, the magnitude of this effect depends on firm-specific conditions. Companies with strong investment income or diversified risk portfolios may be able to absorb higher claim expenses without significantly affecting solvency. This explains why previous studies report mixed findings (Mawardani & Pohan, 2024). From the perspective of signaling theory, a high claim expense ratio sends a negative signal regarding inefficiency and increased risk exposure, which may reduce stakeholder confidence (Spence, 1973; Simbolon et al., 2021).

From an Islamic perspective, claim payments are a form of *tabarru'* contract, which is the foundation of sharia insurance. Every valid claim must be paid on time because it is the right of the participant. This is in accordance with the words of Allah SWT:

إِنَّ اللَّهَ يَأْمُرُكُمْ أَنْ تُؤَدُّوا الْأَمَانَاتِ إِلَىٰ أَهْلِهَا وَإِذَا حَكَمْتُمْ بَيْنَ النَّاسِ أَنْ تَحْكُمُوا بِالْعَدْلِ إِنَّ اللَّهَ نِعِمَّا يَعِظُكُمْ بِهِ إِنَّ اللَّهَ كَانَ سَمِيعًا بَصِيرًا

٥٨

Meaning: Indeed, Allah commands you to convey the trust to its owner. When you judge between people, judge with justice. Indeed, Allah gives you the best instruction. Indeed, Allah is All-Hearing, All-Seeing.

This shows that every claim arising from a risk event is a trust that must be fulfilled by the company as a form of sharia moral responsibility.

The Effect of The Retention Ratio on the Solvency Level

The retention ratio has a positive and significant effect on solvency, indicating that higher risk retention is associated with stronger financial performance. This finding suggests that companies retaining a larger portion of premium income can enhance capital accumulation and improve solvency (Ningsih et al., 2021). From a financial perspective, retention reflects the company's confidence in its internal risk management capabilities. Higher retention allows companies to benefit from underwriting profits without relying heavily on reinsurance (Jamil et al., 2024).

However, this relationship is conditional. Excessive retention without adequate capital support may increase exposure to large claims, which could weaken financial stability. Therefore, the positive effect observed in this study indicates that companies maintain a relatively optimal balance between risk retention and capital adequacy.

This finding supports previous studies that highlight the importance of retention strategy in determining solvency (Ningsih et al., 2021; Jamil et al., 2024). Islam teaches the principle of *wasathiyah* (balance), which is to make decisions that are neither excessive nor deficient. With balanced retention management, companies can maintain financial stability while protecting the rights of participants in a sustainable manner. This is in accordance with the words of Allah SWT:

وَكَذَٰلِكَ جَعَلْنَاكُمْ أُمَّةً وَسَطًا لِتَكُونُوا شُهَدَاءَ عَلَى النَّاسِ وَيَكُونَ الرَّسُولُ عَلَيْكُمْ شَهِيدًا وَمَا جَعَلْنَا الْقِبْلَةَ الَّتِي كُنْتَ عَلَيْهَا إِلَّا لِنَعْلَمَ مَنْ يَتَّبِعِ الرَّسُولَ مِمَّنْ يَنْقَلِبُ عَلَىٰ عَقِبَيْهِ وَإِنْ كَانَتْ لَكَبِيرَةً إِلَّا عَلَى الَّذِينَ هَدَى اللَّهُ وَمَا كَانَ اللَّهُ لِيُضِلَّ إِيْمَانَكُمْ إِنَّ اللَّهَ بِالنَّاسِ لَرَّءُوفٌ رَحِيمٌ

١٤٢

Meaning: Likewise, We have made you (Muslims) a middle nation so that you may be witnesses over mankind and so that the Messenger (Prophet Muhammad) may be a witness over you. We did not establish the qiblah (Baitulmaqdis) that you used to face, except so that We might know (in reality) who follows the Messenger and who turns back. Indeed, (the change of qiblah) is very difficult, except for those whom Allah has guided. Allah will not waste your faith. Indeed, Allah is truly Most Merciful and Most Compassionate to mankind.

The Influence of Claim to Asset Ratio and Retention Ratio on Solvency Levels

The claim expense ratio and retention simultaneously affect the solvency level of insurance companies, which is jointly influenced by the amount of claims paid and the portion of risk borne by the company itself. Managing these two variables is key to maintaining the company's long-term financial balance. This research hypothesis is supported by previous research conducted by [Emaras et al. \(2024\)](#) on the Effect of Early Warning System, Return on Assets, and Return on Equity on the Financial Performance of Conventional Life Insurance Companies and Sharia Life Insurance Companies, which showed that the claim expense ratio, and retention ratio simultaneously affect the solvency level.

From an Islamic perspective, these two indicators must be managed in line with the objectives of *maqashid syariah*, namely preserving wealth (*hifdzul mal*) and preserving the public interest (*maslahah*). A solvent company will be better able to fulfill the principle of mutual assistance (*ta'awun*) among participants, because it is able to pay claims on time and maintain the continuity of the protection program. In other words, solvency is not only a financial measure, but also a reflection of the company's integrity, trustworthiness, and social responsibility to the community. Allah says in Surah Al-Maidah verse 2:

وَتَعَاوَنُوا عَلَى الْبِرِّ وَالتَّقْوَىٰ وَلَا تَعَاوَنُوا عَلَى الْإِثْمِ وَالْعُدْوَانِ ۚ وَاتَّقُوا اللَّهَ إِنَّ اللَّهَ شَدِيدُ الْعِقَابِ ﴿٢﴾

Meaning: *And help one another in righteousness and piety, and do not help one another in sin and aggression. Fear Allah, for Allah is severe in punishment.*

Simultaneous Effect of Variables

The simultaneous test results indicate that the claim expense ratio and retention ratio jointly influence solvency. This finding suggests that solvency is determined by the interaction between operational efficiency and risk management strategy ([Fadrul et al., 2019](#)). Companies that are able to control claim expenses while maintaining optimal retention levels tend to achieve better financial stability. This supports the argument that financial performance in insurance companies cannot be explained by a single variable but requires a combination of indicators.

Explanation of Low Adjusted R²

The Adjusted R² value of approximately 15% indicates that the model explains only a limited portion of the variation in solvency. This result reflects the complexity of solvency as a financial indicator. Several factors may explain this finding.

First, solvency is influenced by various variables not included in the model, such as profitability, company size, investment returns, and capital structure ([Simbolon et al., 2021](#)). Second, regulatory requirements, such as the minimum RBC standard of 120%, may reduce variability across companies ([Ministry of Finance, 2012](#)). Third, the characteristics of sharia insurance, which emphasize risk-sharing (*ta'awun*) and ethical constraints, may lead to more stable but less variable financial performance ([Safira et al., 2022](#)). Finally, the relatively short observation period may not fully capture long-term financial dynamics.

Thus, the low explanatory power highlights the need for future research to include additional variables to better explain solvency.

Practical Implications

From a practical perspective, the findings suggest that insurance companies should prioritize efficient claim management and optimal retention strategies to maintain solvency. In addition, companies should strengthen capital management and diversify income sources to mitigate financial risk. For regulators, the results indicate that monitoring solvency should not rely solely on early warning system ratios but should also consider broader financial indicators to ensure financial stability ([Fadrul et al., 2019](#)).

Conclusion

This study concludes that the claim expense ratio has a negative and significant effect on the solvency of sharia life insurance companies, while the retention ratio has a positive and significant effect. Simultaneously,

both variables significantly influence solvency. These findings highlight the importance of efficient claim management and optimal risk retention in maintaining financial stability.

Acknowledgements

Based on the results of the research conducted, the researchers hope that this research will be useful for certain parties in accordance with its objectives. Therefore, the researchers offer the following suggestions: For Sharia Life Insurance Companies, it is hoped that they will improve efficiency in claim management so that the claim ratio remains within optimal limits and pay attention to appropriate risk retention strategies, taking into account the company's capital and reserve funds. For regulators (such as OJK and DSN-MUI), it is recommended to continue promoting the implementation of the Early Warning System. For future researchers, it is recommended to add other variables that may also affect solvency.

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