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THE EFFECT OF INSURANCE RISK AND RISK BASED CAPITAL ON PROFITABILITY OF PUBLICLY LISTED INSURANCE COMPANIES IN INDONESIA (2020-2024)

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Abstract: *The insurance industry constitutes a strategic pillar of the national financial system; however, operational efficiency and profitability remain persistent challenges within the sector. This study focuses on the effect of insurance risk indicators–comprising the loss ratio, retention ratio, premium growth ratio, and technical ratio–as well as Risk-Based Capital (RBC) on financial performance, proxied by Return on Assets (ROA), while controlling from firm size. Employing a quantitative causal design, the study utilizes a balanced panel dataset covering 15 insurance companies listed on the Indonesia Stock Exchange (IDX) within the 2020–2024 period, resulting in 75 firm-year observations. Model selection was conducted through a sequential procedure involving the Chow test (p = 0.0371), Hausman test (p = 0.6400), and Breusch–Pagan Lagrange Multiplier test (p = 0.0943), collectively indicating the Common Effect Model (CEM) with Pooled OLS as the most appropriate specification. The model as a whole is statistically significant (F = 7.54; p = 0.000), with an R^2 of 0.3995 and an Adjusted R^2 of 0.3465. The estimation results indicate that the loss ratio has a significant negative effect on ROA (β = −0.0234; p = 0.000), while the retention ratio (β = 0.0281; p = 0.026) and technical ratio (β = 0.0050; p = 0.038) demonstrate significant positive effects. In contrast, neither the premium growth ratio (β = 0.0009; p = 0.945) nor RBC (β = 0.0011; p = 0.108) shows a statistically significant relationship with ROA during the observed period. These findings suggest that insurance profitability is more closely determined by the effectiveness of underwriting risk management and reserve adequacy than by premium volume expansion or capital solvency levels alone*

Keywords: ***Loss Ratio; Retention Ratio; Premium Growth Ratio; Technical Reserves; Risk-Based Capital; Return On Assets; Indonesian Insurance.***

Abstrak: Industri asuransi memegang peranan strategis dalam sistem keuangan nasional, namun tantangan efisiensi operasional dan profitabilitas masih menjadi persoalan yang belum sepenuhnya terselesaikan. Fokus penelitian ini adalah menganalisis pengaruh indikator risiko asuransi–meliputi loss ratio, retention ratio, premium growth ratio, dan technical ratio–serta Risk-Based Capital (RBC) terhadap kinerja keuangan yang diproksikan melalui Return on Assets (ROA), dengan ukuran perusahaan sebagai variabel kontrol. Penelitian menggunakan desain kuantitatif kausal dengan data panel seimbang yang mencakup 15 perusahaan asuransi yang terdaftar di Bursa Efek Indonesia selama periode 2020–2024, menghasilkan 75 observasi. Pemilihan model dilakukan melalui serangkaian uji Chow (p = 0,0371), Hausman (p = 0,6400), dan Lagrange Multiplier (p = 0,0943), yang secara keseluruhan mengindikasikan Common Effect Model (CEM) dengan metode Pooled OLS sebagai spesifikasi terbaik. Model secara keseluruhan signifikan (F = 7,54; p = 0,000) dengan R^2 sebesar 0,3995 dan Adjusted R^2 sebesar 0,3465. Hasil estimasi menunjukkan bahwa loss ratio berpengaruh negatif dan signifikan terhadap ROA (β = −0,0234; p = 0,000), sementara retention ratio (β = 0,0281; p = 0,026) dan technical ratio (β = 0,0050; p = 0,038) berpengaruh positif dan signifikan. Sebaliknya, premium growth ratio (β = 0,0009; p = 0,945) dan RBC (β = 0,0011; p = 0,108) tidak menunjukkan pengaruh yang signifikan terhadap ROA dalam periode pengamatan. Terindikasi dalam temuan ini bahwa efektivitas manajemen risiko underwriting dan kecukupan cadangan teknis asuransi lebih menentukan profitabilitas perusahaan dibandingkan dengan ekspansi volume premi maupun tingkat solvabilitas modal semata.

Kata Kunci: Loss Ratio; Retention Ratio; Premium Growth Ratio; Cadangan Teknis,; Risk-Based Capital; Return On Assets; Asuransi Indonesia.

PENDAHULUAN

The insurance industry serves as a strategic component within the national financial system, functioning primarily as a mechanism for risk transfer and mitigation. Notwithstanding its importance, the penetration rate of commercial insurance in Indonesia was recorded at a mere 2.7 percent in 2022, falling significantly below the ASEAN regional average. Amidst these conditions, the total sum of premium income in the industry of commercial insurance reached IDR 336.65 trillion in December 2024, representing a year-on-year growth of 4.91 percent, while total industry assets were valued at IDR 1,133.87 trillion (Kompas.id, 2025). However, such nominal growth does not necessarily reflect the quality of individual corporate financial performance, as operational efficiency and profitability remain unresolved challenges within the sector.

Within the supervisory framework, OJK (the Financial Services Authority) has established financial soundness indicators through POJK No. 71/POJK.05/2016. These regulations mandate a 120% minimum of Risk-Based Capital (RBC), the establishment of adequate technical reserves, and the prudential management of underwriting risks. Theoretically, technical ratios comprising the loss ratio (X1), retention ratio (X2), premium growth (X3), the ratio of technical reserves to net premiums (X4), RBC (X5), and are intrinsically linked to profitability, as measured by RoA. Furthermore, firm size, will act as a control variable to account for economies of scale across different entities, consistent with established literature (Sasidharan et al., 2023 and Worku et al., 2024)

While several prior papers have examined the relationship between risk indicators and insurance profitability, the empirical results remain substantially inconsistent. A study by Sasidharan et al. (2023) established a significant relationship amid the loss ratio and the return of general insurance providers in India; conversely, Worku et al. (2024) reported inconsistent findings within the context of emerging African economies. Regarding RBC, Agustin et al. (2022) and Martana (2024) identified a significant positive influence on RoA among insurance firms listed on the IDX. However, findings by Abdeljawad & Farhood (2024) across a broader sample of developing nations suggest that high solvency does not invariably correlate with superior profitability, thereby creating a notable 'conflict gap' that remains unresolved. Furthermore, studies specifically analyzing Indonesian insurance companies while simultaneously incorporating all five technical variables remain limited. Existing research, such as Azmi et al. (2020) and Martana (2024), only addresses a subset of these variables and focuses on the pre-pandemic era. Consequently, these studies fail to capture the shifts in financial behavior during the 2020–2024 period, characterized by the simultaneous pressures of heightened claims, capital market volatility, and OJK's regulatory tightening.

To address the existing 'conflict gap' and the limited availability of contextual research in Indonesia's post-pandemic landscape, this investigation explores how five technical metrics influence the profitability levels of insurers traded on the Indonesia Stock Exchange for the 2020–2024 period, while accounting for the scale of operations to maintain statistical consistency. The research subjects consist of IDX-listed insurance firms, analyzed via panel data to bridge existing gaps in the Indonesian market context. This investigation provides a robust empirical contribution by investigating the interplay between risk management indicators (loss ratio, retention ratio, technical reserve-to-net premium ratio, and RBC) and financial performance, specifically operationalized through Return on Assets (RoA), while accounting for firm size. This endeavor ultimately offers practical implications for corporate management, investors, and regulators in evaluating the stability and sustainability of the Indonesian insurance industry.

Insurance risk constitutes a critical factor that may hinder insurance companies from achieving their objectives if not properly managed. In the insurance sector, risks such as credit risk, reinsurance risk, and insurance risk itself can significantly influence company performance. Based on Otoritas Jasa Keuangan Regulation Number 8/SEOJK.05/2021, insurance risk refers to the potential inability of a company to fulfill its obligations to policyholders due to weaknesses in underwriting, pricing, reinsurance management, or claims handling (OJK, 2021). This risk is commonly measured using indicators such as net premiums on equity, claim ratios, lapse ratios, retention ratios, and loss ratios, among others.

Financial performance reflects how effectively a company manages its operations and risks, with Return on Assets (ROA) commonly used as a key indicator. ROA measures management efficiency in utilizing assets to generate profit (Sante et al., 2021). A higher ROA indicates stronger financial performance, while a lower ratio reflects inefficiencies in asset utilization (Hasanah & Siswanto, 2019). In insurance companies, profitability is closely influenced by risk-related factors such as claims levels, reinsurance policies, and the adequacy of technical reserves.

One important measure of insurance risk is the loss ratio, which represents the proportion of claims relative to earned premiums. A higher loss ratio indicates greater claim expenses, which negatively impacts profitability, whereas a lower ratio suggests better financial performance (Kindangen et al., 2021; Hasanah & Siswanto, 2019). Empirical studies consistently show that an increase in the loss ratio reduces ROA, as higher claim costs directly diminish net income (Sasidharan & Ranjith, 2024; Abdeljawad & Farhood, 2024; Worku et al., 2024; Azmi et al., 2020).

Another key variable is the retention ratio, which reflects the proportion of risk retained by an insurance company after reinsurance. A higher retention ratio indicates greater independence in risk-bearing and the potential for higher profitability, as more premiums are retained (Wulandari & Alfifto, 2025; Sasidharan & Ranjith, 2024). However, it also increases exposure to underwriting risk and loss volatility due to reduced risk transfer to reinsurers (Yao & Zhu, 2024).

Premium Growth Ratio (PGR) measures the growth of premiums over time and serves as an indicator of public trust and company expansion. Strong premium growth can enhance profitability, as it reflects increased business volume and investment capacity (Ramdhani et al., 2025; Sari et al., 2024). While several studies find a positive relationship between premium growth and ROA (Sasidharan & Ranjith, 2024; Worku et al., 2024; Azmi et al., 2020), others report no significant effect (Martana, 2024), indicating inconsistent findings.

Technical reserves represent liabilities that must be maintained to meet future claims obligations. A higher technical reserve ratio implies that a larger portion of premiums is allocated for future claims, which may reduce current profitability (Stephanie & Ruslim, 2021; Azmi et al., 2020). Similarly, Risk-Based Capital (RBC) reflects a company's solvency level and its ability to absorb risks. According to POJK No. 71/POJK.05/2016, insurance companies must maintain a minimum RBC of 120% to ensure financial stability and policyholder protection. A higher RBC generally indicates stronger financial health and profitability (Anita & Kusumaningtias, 2024; Rahayu & Mubarok, 2017), although some studies find no significant relationship with ROA (Agustin et al., 2022; Martana, 2024).

Firm size is also considered an important factor influencing financial performance, as larger firms typically have greater resources, economies of scale, and stronger market power (Khasanah et al., 2025). While some studies find a positive relationship between firm size and profitability (Worku et al., 2024), others report negative effects due to inefficiencies in large organizations (Sasidharan & Ranjith, 2024), indicating mixed empirical results.

Despite extensive research, several gaps remain. Empirical inconsistencies persist regarding the effects of premium growth, RBC, and firm size on profitability (Worku et al., 2024; Martana, 2024; Agustin et al., 2022). Theoretically, the retention ratio presents a trade-off between higher profitability and increased risk exposure. Additionally, there is a contextual gap in examining these relationships within Indonesia, particularly under SEOJK No. 8/2021 during the 2020–2024 period, which represents a volatile phase for the insurance industry.

Building on prior studies, this research adopts a conceptual framework primarily based on Sasidharan and Ranjith (2024), complemented by findings from Worku et al. (2024), Azmi et al. (2020), and Agustin et al. (2022). The study analyzes how Loss Ratio, Retention Ratio, Premium Growth Ratio, Technical Ratio, and Risk-Based Capital influence the financial performance (ROA) of publicly listed insurance companies in Indonesia during the 2020–2024 period.

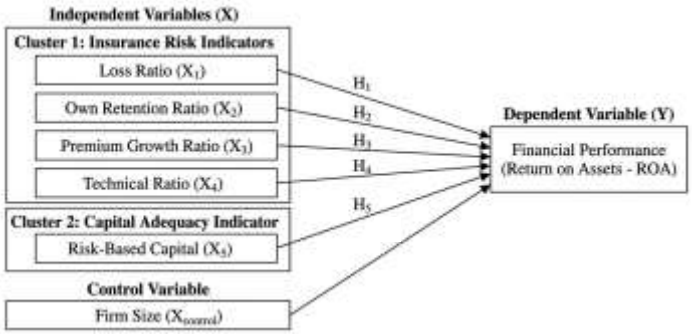

Figure 1 Conceptual Framework

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METODE PENELITIAN

A quantitative causal design is adopted in this study to examine the relationship between capital adequacy, insurance risk indicators, and financial performance. Secondary data spanning the 2020–2024 period were gathered from the annual reports of insurance companies on the Indonesia Stock Exchange, with additional supporting data retrieved from the IDX website.

The study population comprises all insurance companies listed on the IDX. Using purposive sampling, firms were selected based on: (1) classification within the insurance sub-sector and continuous listing during 2020–2024; (2) availability of complete, audited annual reports; (3) clear, adequate, and consistent financial disclosures for the measurement of the study variables; and (4) status as operating entities or primary insurance holdings, excluding ultimate parent companies to avoid double-counting. The final sample includes 15 firms, yielding a balanced panel of 75 firm-year observations.

This study employs Return on Assets (ROA) as the dependent variable to proxy financial performance. ROA is calculated as net income after tax divided by total assets, and reflects management's ability to efficiently utilize the company's assets in generating profit (Kusuma, 2021). The independent variables consist of four insurance risk indicators regulated under SEOJK No. 8/2021 and one capital adequacy indicator, along with one control variable. The complete operational definitions of all variables are presented in Table 1 below.

Table 1 Operational Definition of Variable

Variable	Code	Measurement
Financial Performance (ROA)	Y	Net income after tax ÷ Total assets
Loss Ratio	X_1	Total claims incurred ÷ Net premium earned
Own Retention Ratio	X_2	Net premiums ÷ Gross premiums
Premium Growth Ratio	X_3	(Net premium_t – Net premium_t-1) ÷ Net premium_t-1
Technical Ratio	X_4	Total insurance contract liabilities ÷ Total net premiums
Risk-Based Capital	X_5	Available solvency margin ÷ Minimum solvency requirement
Firm Size	X_6 (control)	Natural log of total assets

This study uses a panel data regression model to examine the relationship between the independent variables and the dependent variable across 15 insurance companies over 5 years (2020–2024). Panel data regression is appropriate for this study as it combines time-series and cross-sectional data, allowing for greater degrees of freedom and the ability to control for unobserved firm-specific heterogeneity (Juanda & Junaidi, 2012). The general regression model employed in this study is specified as follows:

$$ROA_{it} = \alpha + \beta_1 LR_{it} + \beta_2 ORR_{it} + \beta_3 PGR_{it} + \beta_4 TR_{it} + \beta_5 RBC_{it} + \beta_6 SIZE_{it} + \varepsilon_{it}$$

Where:

- ROA_{it} = Return on Assets of company *i* in year *t*
- α = Intercept (constant)
- $\beta_1 - \beta_6$ = Estimated regression coefficients
- LR_{it} = Loss Ratio of company *i* in year *t*
- ORR_{it} = Own Retention Ratio of company *i* in year *t*
- PGR_{it} = Premium Growth Ratio of company *i* in year *t*
- RBC_{it} = Risk-Based Capital of company *i* in year *t*
- $SIZE_{it}$ = Firm Size of company *i* in year *t*

- ε_{it} = Error term

Model selection among CEM, FEM, and REM was carried out through a structured three-step procedure in Stata. The process begins with the Chow Test to assess whether FEM is preferred over CEM; a p-value below 0.05 indicates that FEM provides a better fit. If FEM is selected, the Hausman Test is subsequently applied to determine whether FEM or REM is more appropriate, where a p-value above 0.05 favors REM. When REM is indicated, the final step involves the Breusch–Pagan LM Test to compare REM with CEM; a p-value exceeding 0.05 suggests that CEM (Pooled OLS) is more suitable. This sequential approach ensures that the chosen model is both consistent and efficient for the dataset.

HASIL PENELITIAN

Descriptive Statistics

Model selection in panel data analysis is dictated by the specific properties of the dataset. Therefore, choosing among the Common, Fixed, or Random Effect models relies on the outcomes of the Chow, Hausman, and Lagrange Multiplier tests.:

1. *Chow Test*

   The Chow test shows an F probability value of 0.0371. Since this value is under 0.05, hence the Fixed Effect Model (FEM) is the more suitable model to be used. Therefore, a Hausman test should be conducted. The following are the Chow test results:

Table 2 Chow Test Result

Effect Test	Statistic	d.f.	Prob.
Cross-section F	1.87	(14, 54)	0.1036
Cross-section Chi-square	1.98	14	0.0371

2. *Hausman Test*

   After conducting the Hausman test, a Chi-square probability value of 0.64 was generated. Since this result is higher than 0.05, Random Effect Model (REM) is a more suitable model to be used. The final step to ensure the best model is to do the Lagrange Multiplier test. The Hausman test results could be seen as the following:

Table 3 Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi.Sq. d.f.	Prob.
Cross-section random	4.27	6	0.64

3. *Lagrange Multiplier (LM) Test*

   The Lagrange Multiplier test results yield a Chi-square probability value of 0.0943 > 0.05. Therefore, the conclusion is to use the Common Effect Model (CEM) as the best model in this study.

Table 4 Lagrange Multiplier Test Result

Test Summary	Chi-Sq. Statistic	Prob.
Cross-section Chi-square	1.73	0.0943

Regression Result

ased on the results of the regression model selection tests that have been conducted, the model chosen in this study is the Common Effect Model (CEM) using the Pooled OLS method. Therefore, the regression results obtained are as follows:

Table 5 Regression Result

y	Coefficient	Std.err.	t	P > | t |	[95% conf. Interval]	
X_1	-.0234103	.0049005	-4.78	0.000	-.033189	-.0136316
X_2	.028143	.0123814	2.27	0.026	.0034363	.0528497
X_3	.0008652	.0124449	0.07	0.945	-.0239682	.0256986
X_4	.0050108	.0023708	2.11	0.038	.0002799	.0097416
X_5	.0011339	.000696	1.63	0.108	-.000255	.0025227
X_6	.0017608	.0005686	3.10	0.003	.0006262	.0028955
_Cons	-.0392517	.0182749	-2.15	0.035	-.0757186	-.0027848

The Effect of Loss Ratio (X_1) on Return on Assets (ROA)

The findings reveal that the Loss Ratio (X1) has a statistically significant, negative impact towards the Return on Assets of IDX-listed insurance companies from 2020 to 2024. This is evidenced by a negative coefficient and a P-value of 0.000 ($p < 0.05$). Consequently, the first null hypothesis (H_0), which posits that the Loss Ratio has no significant effect on Return on Assets, is rejected.

The Effect of Owned Reserve Ratio (X_2) on Return on Assets (ROA)

The findings reveal that the Owned Reserve Ratio (X2) has a statistically significant effect towards the Return on Assets of insurance companies listed on the IDX from 2020 to 2024. This is evidenced by a P-value of 0.026 ($p < 0.05$). Consequently, the second null hypothesis (H_0), which posits that the Owned Reserve Ratio has no significant effect on Return on Assets, is rejected.

The Effect of Premium Growth Ratio (X_3) on Return on Assets (ROA)

The findings indicated that the Premium Growth Ratio (X3) does not have a statistically significant impact towards the Return on Assets of IDX-listed insurance companies between 2020 and 2024. This is demonstrated by a P-value of 0.945 ($p > 0.05$). Therefore, there is insufficient empirical evidence to reject the third null hypothesis (H_0), which posits that the Premium Growth Ratio has no significant effect on Return on Assets.

The Effect of Technical Reserves (X_4) on Return on Assets (ROA)

The findings demonstrate that Technical Reserves (X4) exert a statistically significant effect towards the Return on Assets of insurance companies listed on the IDX from 2020 to 2024. This conclusion is supported by a P-value of 0.038 ($p < 0.05$). As a result, the fourth null hypothesis (H_0), which posits that Technical Reserves have no significant effect on Return on Assets, is conclusively rejected.

The Effect of Risk-Based Capital (X_5) on Return on Assets (ROA)

The findings reveal that there is not enough evidence to say that Risk-Based Capital (X5) has a statistically significant effect towards the Return on Assets of IDX-listed insurance companies during the 2020–2024 observation period. This is evidenced by a P-value of 0.108 ($p > 0.05$). Consequently, there is insufficient evidence to reject the fifth null hypothesis (H_0), which posits that Risk-Based Capital has no significant impact on Return on Assets.

PEMBAHASAN

The findings of this study provide empirical evidence on the determinants of financial performance among publicly listed insurance companies in Indonesia over the 2020–2024 period. The discussion below interprets each result in relation to theoretical foundations and prior empirical literature.

The Effect of Loss Ratio on Return on Assets

Based on the test result above, it can be concluded that Loss Ratio has a significant negative effect towards Return on Assets (ROA), which means if the Loss Ratio increases then the ROA will fall. These findings are consistent with those of Sasidharan and Ranjith (2024), Abdeljawad and Farhood (2024), Worku et al. (2024), and Azmi et al. (2020), all of whom document a negative relationship between claim intensity and insurer profitability across different market contexts. These findings highlights the importance of rigorous risk selection, pricing discipline, and active claims management as foundational levers of financial performance in the Indonesian insurance industry.

The Effect of Retention Ratio on Return on Assets

The Own Retention Ratio is found to have a positive and statistically significant effect on ROA (β = 0.0281; p = 0.026), indicating that a higher proportion of retained premiums contributes to improved profitability. This suggests that insurance companies listed on the IDX during the 2020–2024 period tend to benefit from retaining a larger share of underwriting risk, as it allows them to capture a greater portion of premium income rather than transferring it to reinsurers. This finding is consistent with prior studies such as Sasidharan & Ranjith (2024) and Wulandari & Alfifto (2025), which argue that higher retention enhances profitability through increased revenue control and reduced dependency on reinsurance arrangements. From a theoretical standpoint, this aligns with the risk-return trade-off framework in insurance management, where firms that retain more risk are exposed to higher potential losses but are simultaneously positioned to achieve greater returns (Yao & Zhu, 2024).

The Effect of Premium Growth Ratio on Return on Assets

The empirical results indicate that the Premium Growth Ratio does not have a significant effect on the RoA of insurance companies listed on the IDX for the 2020–2024 period; consequently, the third null hypothesis (H0) cannot be rejected. This finding aligns with Martana (2024), who observed similar results within the Indonesian insurance sector. However, it diverges from the studies of Sasidharan & Ranjith (2024) and Worku et al. (2024), which reported a significant positive impact. Such discrepancies may stem from variations in regulatory frameworks, market structures, geographical contexts, and the pre-pandemic timing of previous research. Furthermore, this lack of significance is attributed to the fact that premium income is not immediately realized as profit; rather, a substantial portion must be allocated toward technical reserves and claim settlements. In essence, rapid premium growth does not inherently guarantee increased profitability, as rising premiums are almost invariably accompanied by a corresponding growth in liabilities.

The Effect of Technical Ratio on Return on Assets

The technical ratio, measured as the ratio of total insurance contract liabilities to net premiums, exhibits a statistically significant and positive effect on ROA (β = 0.0050; p = 0.038). This finding contradicts previous studies by Azmi et al. (2020) and Stephanie and Ruslim (2021), which state that a higher technical ratio tends to reduce profitability. This may seem unusual because higher reserves mean the company sets aside more money for future claims, which can reduce profit. But this study's findings can be explained by looking at it from a signaling and financial discipline perspective. Companies with higher technical reserves show that they are more careful in managing risk and are better prepared to meet future obligations. This makes the company appear more stable and trustworthy. Additionally, having enough reserves helps reduce the risk of unexpected losses in the future. As a result, the company's earnings become more stable, which can improve its average ROA.

The Effect of Risk-Based Capital on Return on Assets

The regression results show that Risk-Based Capital does not significantly affect ROA (β = 0.0011; p = 0.108), leaving H_5 unsupported. Although the positive coefficient direction aligns with theoretical expectations, whereby stronger capital buffers enable loss absorption and signal financial health to policyholders, neither effect appears to be materially operative within this

sample. Two contextual factors account for this result. First, virtually all sample firms maintain RBC ratios substantially above the 120% regulatory minimum under POJK No. 71/POJK.05/2016, meaning that cross-sectional RBC variation largely reflects capital surpluses rather than meaningful solvency differences. Under such conditions, incremental capital accumulation may yield diminishing marginal returns to profitability or even signal suboptimal deployment of excess capital, a pattern consistent with Abdeljawad and Farhood (2024), who found that high solvency does not invariably translate into superior profitability across developing-country insurers. Second, the pandemic-era capital market volatility in 2020 introduced significant noise into firms' available solvency margins, potentially attenuating any underlying RBC–profitability relationship during the observation window. Taken together, these findings suggest that in the Indonesian insurance context, RBC variation above the regulatory floor does not systematically differentiate profitability outcomes.

KESIMPULAN

The financial performance of insurance companies listed on the Indonesia Stock Exchange during the 2020–2024 period is primarily shaped by the effectiveness of technical risk management rather than by growth or capital strength alone. The findings indicate that the loss ratio exerts a significant negative effect on Return on Assets (ROA), suggesting that higher claim burdens directly erode profitability. In contrast, the retention ratio and technical reserves are found to have a significant influence on ROA, reflecting the importance of risk retention strategies and adequate provisioning in sustaining financial performance. Meanwhile, premium growth and Risk-Based Capital (RBC) do not demonstrate a significant relationship with ROA, implying that business expansion and solvency levels are not necessarily translated into improved profitability within the observed period. These results highlight that profitability in the insurance sector is more closely linked to how well firms manage underwriting risk and reserve adequacy, rather than simply expanding premium volume or maintaining high capital ratios.

SARAN

In view of the findings, insurance companies need to prioritize underwriting quality and claims control, as the loss ratio remains the primary driver of profitability. Strengthening risk selection, pricing accuracy, and claims monitoring systems is therefore critical. At the same time, firms should adopt a more balanced reinsurance strategy, optimizing retention levels to enhance returns while maintaining prudent risk exposure. The significance of technical reserves further implies that disciplined and realistic reserving practices are crucial to sustaining financial performance. From a regulatory standpoint, the insignificant effect of Risk-Based Capital (RBC) suggests that capital adequacy alone is insufficient to ensure profitability, thereby highlighting the need for adequate risk-sensitive and efficiency-oriented management frameworks. Future research is encouraged to incorporate broader determinants, including investment performance and macroeconomic factors, to provide a more comprehensive explanation of insurance profitability.

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