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Determinants of Profitability in Indonesian Listed Insurance Companies

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Abstract

Insurance companies play a vital role in managing risk and maintaining economic stability. Understanding the factors influencing their profitability is essential for effective decision-making. This study examines the determinants of profitability among 18 insurance companies listed on the Indonesia Stock Exchange during the 2019–2023 period. Using a quantitative research design, the study analyzes 90 observations by applying panel data regression, which combines time series and cross-sectional data, supported by E-Views 9.0 software. The variables tested include company-specific factors such as age, leverage, liquidity, loss ratio, premium growth, asset tangibility, managerial efficiency, and company size, along with macroeconomic indicators like GDP growth and inflation. The regression results reveal that only managerial efficiency has a significant negative impact on profitability, as measured by Return on Assets. This indicates that lower operational efficiency is associated with reduced profitability. In contrast, variables such as company age, leverage, liquidity, loss ratio, premium growth, asset tangibility, company size, GDP growth, and inflation show no significant effect on profitability. The findings highlight the critical role of internal management efficiency over external or structural factors in driving financial performance. This research offers valuable insights for insurance company managers, emphasizing the need to improve operational efficiency to enhance profitability.

Keywords

Insurance Companies, Asset Tangibility, Financial Performance, Liquidity, Managerial Efficiency, Return on Assets.

1. Introduction

Financial institutions, including insurance companies, play a critical role in supporting national economic growth and maintaining financial system stability. The insurance industry helps individuals and businesses mitigate risks while simultaneously contributing to economic resilience through the management of funds sourced from customer premiums (Oktiani et al., 2017; Elisabeth & Mulyana, 2019). In an era of rapid market dynamics and increasing financial complexity, insurance companies are required to adopt effective and efficient financial management strategies to sustain long-term profitability (Moridu & Abidin, 2023; Jain, 2024; Suherlan, 2024). Profitability remains a central measure of corporate financial performance and is often used to assess a company's ability to generate returns from its available resources (Kariuki et al., 2021; Kamau et al., 2021; Worku et al., 2024).

For insurance companies, profitability serves not only as an indicator of operational efficiency but also as a determinant of long-term business sustainability. One of the most commonly used indicators for measuring profitability is Return on Assets (ROA), which evaluates how efficiently a firm utilizes its total assets to generate net income (Irungu et al., 2018; Patrick, 2018; Kipto et al., 2021). Various internal and external factors have been shown to influence the profitability of insurance companies. These include company-specific characteristics such as age, leverage, liquidity, loss ratio, premium growth, asset tangibility, managerial efficiency, and company size, as well as macroeconomic variables like Gross Domestic Product (GDP) growth and inflation (Elisabeth & Mulyana, 2019; Purnamawati, 2019; Jaishi, 2020).

Despite extensive research, prior empirical studies on the determinants of profitability in the insurance sector reveal inconsistent and sometimes contradictory findings. For instance, Worku et al. (2024) and Sah and Magar (2021) found a positive influence of company age on ROA, suggesting that older firms benefit from operational maturity. However, Siddik et al. (2022) observed no significant effect, citing efficiency declines in older companies. Similarly, while Worku et al. (2024) identified a positive impact of leverage on profitability, Yilmaz and Samour (2024) reported the opposite. In terms of liquidity, previous studies show conflicting evidence: Worku et al. (2024) found a negative relationship, while Bandara and Wijesinghe (2021) revealed a positive association, indicating that liquidity–profitability dynamics remain unclear in the insurance sector.

The effects of asset tangibility, managerial efficiency, and company size on profitability also remain inconclusive, with studies reporting both positive and insignificant relationships (Ajao & Ogieriakhi, 2018; Oganda et al., 2023). Additionally, while macroeconomic variables such as GDP growth and inflation are widely recognized as external factors affecting corporate performance, their direct impact on insurance profitability in emerging markets like Indonesia remains under-researched. For example, Worku et al. (2024), Maulana and Mulyana (2020), and Sumantri et al. (2021) found GDP growth to be positively associated with profitability, but other studies suggest that macroeconomic benefits may not fully trickle down to the insurance sector due to low market penetration and limited insurance literacy.

Most existing studies focus on developed countries or broader financial institutions, with limited empirical evidence specifically addressing insurance companies in Indonesia, particularly using panel data from the recent post-pandemic period (Derbali & Jamel, 2018; Siregar et al., 2021; Alwie, 2024). Furthermore, previous research often analyzes profitability determinants in isolation, without integrating both firm-specific factors and macroeconomic variables into a single comprehensive model. This study aims to empirically analyze the effects of internal

company characteristics (company age, leverage, liquidity, loss ratio, premium growth, asset tangibility, managerial efficiency, and company size) and external macroeconomic factors (GDP growth and inflation) on the profitability of insurance companies in Indonesia. This research offers several contributions. First, it provides an updated empirical analysis using panel data from 18 insurance companies listed on the Indonesia Stock Exchange over the 2019–2023 period, incorporating the latest post-COVID-19 financial conditions. Second, by integrating both micro-level (company-specific) and macro-level (economic) variables, this study offers a more holistic understanding of the determinants of profitability in the Indonesian insurance industry. Third, it contributes to the ongoing academic debate on profitability factors in emerging economies by helping to clarify the inconsistent findings reported in previous research.

2. Literature Review and Hypothesis Development

2.1. Firm Characteristics and Profitability

Profitability is a crucial measure of a company's financial health and operational efficiency, often captured using Return on Assets (ROA) in the insurance sector (Tuffour et al., 2021; Markonah et al., 2023; Worku et al., 2024). From the perspective of the Theory of Firm Value Maximization, management seeks to maximize shareholder wealth through strong financial performance (Sah & Magar, 2021; Khadka, 2023). Several internal characteristics influence profitability. Based on Organizational Life Cycle Theory, older firms are assumed to have better market experience and operational stability.

However, mixed empirical results (Siddik et al., 2022; Wosti & Pradhan, 2023) suggest that age does not guarantee higher profitability. Leverage, grounded in the Trade-Off Theory, should ideally balance debt benefits with financial risks. Yet, in insurance firms, underwriting and investment income dominate profitability drivers, making leverage effects minimal (Tsvetkova et al., 2021; Dhiab, 2021; Msomi & Nzama, 2023). Liquidity, aligned with the Liquidity-Profitability Trade-Off Theory, shows that while high liquidity secures claims payment, it may limit income-generating investments (Camino-Mogro & Bermúdez-Barrezueta, 2019; Septina, 2022; Shahi & Agnihotri, 2022).

H1: Company age has a significant effect on profitability.

H2: Leverage has a significant effect on profitability.

H3: Liquidity has a significant effect on profitability.

2.2. Operational and Managerial Factors Affecting Profitability

Operational performance indicators like the loss ratio and premium growth reflect core insurance activities. Underwriting Risk Theory emphasizes that a high loss ratio increases risk exposure, yet its negative effect on profitability can be offset by investment income diversification (Berhe & Kaur, 2017; Hamal, 2020). According to the Revenue Growth Hypothesis, premium growth should enhance profitability by expanding the market base.

However, empirical findings show that operational inefficiencies and claim management issues may weaken this effect (Onyuma, 2019; Al-Abedallat & Rumman, 2024). From the Resource-Based View, asset tangibility should support operational capacity and financing access, yet studies in insurance firms suggest intangible resources may play a larger role (Iltas & Demirgunes, 2020; Worku et al., 2024). Managerial efficiency, rooted in Agency Theory, reflects management's capability to utilize resources optimally. Yet, overly aggressive cost reductions can lower service quality, creating a paradoxical effect on profitability (Cho & Lee, 2019; Sani & Abubakar, 2022).

- H4: Loss ratio has a significant effect on profitability.
- H5: Premium growth has a significant effect on profitability.
- H6: Asset tangibility has a significant effect on profitability.
- H7: Managerial efficiency has a significant effect on profitability.

2.3. External Environmental Factors and Profitability

Company size, macroeconomic growth, and inflation represent external environmental determinants. Economies of Scale Theory suggests that larger firms should enjoy operational efficiencies; however, empirical evidence in insurance contexts remains inconclusive (Abeyrathna & Priyadarshana, 2019; Worku et al., 2024). GDP growth theoretically increases insurance demand, yet low public awareness often limits this benefit (Egbunike & Okerekeoti, 2018; Purwohandoko & Iriani, 2021). Inflation, as per the Cost-Push Inflation Theory, raises costs and claims liabilities, but insurers often mitigate this risk through strategic investment adjustments (Sinha & Bhattacharyya, 2019; Abebe & Abera, 2019).

In addition, regulatory frameworks and political stability are also important external factors that influence the performance of insurance companies. Good regulations can improve public trust, ensure financial health, and prevent market failures, although overly strict regulations may increase costs and limit innovation. Political stability provides certainty for companies to plan investments and manage long-term risks (Shawar & Siddiqui, 2019). On the other hand, political instability or frequent policy changes can reduce industry confidence, disrupt operations, and discourage foreign investment in the insurance sector. Insurance companies need to stay responsive to changes in the institutional environment to remain resilient and grow.

- H8: Company size has a significant effect on profitability.
- H9: GDP growth has a significant effect on profitability.
- H10: Inflation has a significant effect on profitability.

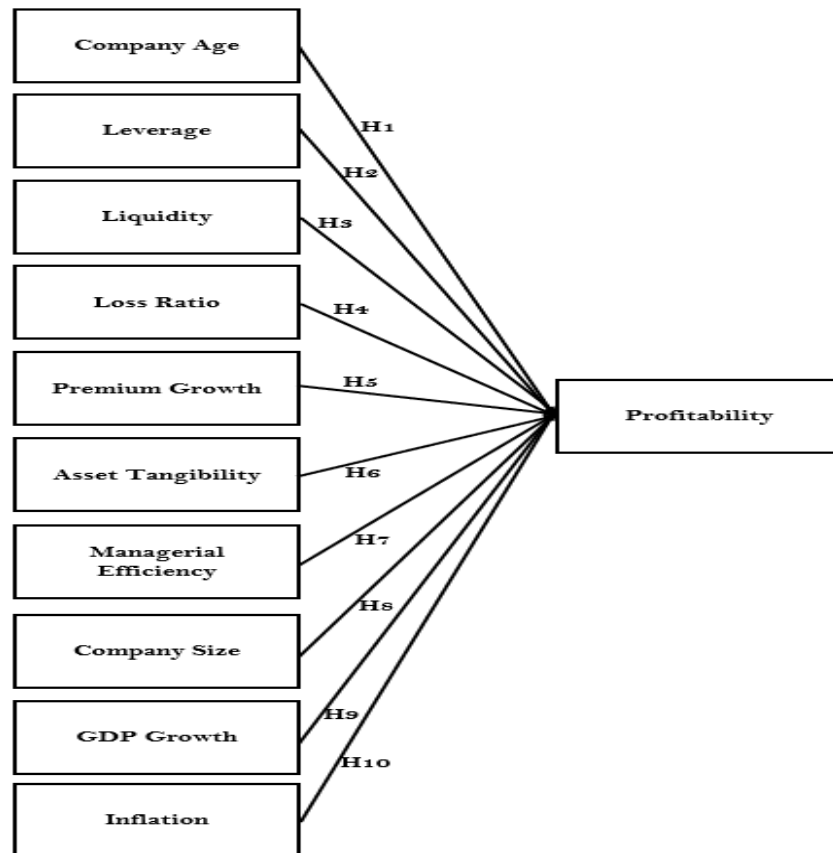


Figure 1. Research Framework

Figure 1 illustrates a conceptual model depicting the relationship between ten independent variables and the profitability of insurance companies. Each variable is directly linked to profitability through specific hypotheses (H1 to H10). The variables include Company Age (H1), Leverage (H2), Liquidity (H3), Loss Ratio (H4), Premium Growth (H5), Asset Tangibility (H6), Managerial Efficiency (H7), Company Size (H8), GDP Growth (H9), and Inflation (H10). Each variable is assumed to have a significant influence on profitability, which is measured using Return on Assets (ROA). This model integrates internal company factors such as organizational characteristics and managerial efficiency, as well as external factors like macroeconomic conditions. Each connecting line in the diagram represents the direction of influence to be tested in this study, whether positive or negative, based on theoretical frameworks and previous empirical findings.

3. Methods

This study employs a quantitative research approach with a hypothesis-testing design to analyze the influence of several independent variables on the profitability of insurance companies in Indonesia. The independent variables include company age, leverage ratio, liquidity ratio, loss ratio, premium growth, asset tangibility, managerial efficiency, company size, GDP growth, and inflation, while the dependent variable is profitability, measured by Return on Assets (ROA). The population for this research consists of all insurance companies listed on the Indonesia Stock Exchange (IDX) during the period 2019–2023. The sampling technique used is purposive sampling, with the criterion that companies must consistently publish complete annual financial reports throughout the observation period. A total of 18 insurance companies met the sample criteria, resulting in 90

observational data points (18 companies × 5 years). Data collection relied entirely on secondary data sources. The data were obtained from company financial statements, the official website of the Indonesia Stock Exchange (<https://www.idx.co.id/Indonesia>), and relevant macroeconomic indicators sourced from the Central Bureau of Statistics (BPS) and Bank Indonesia (BI). Variables such as GDP growth and inflation were gathered from national economic reports, while company-specific data were extracted from annual reports and financial statements. For data analysis, panel data regression was employed, combining both time series and cross-sectional data. The analysis was conducted using EViews 9.0 software. Several panel data model selection tests were performed to determine the most appropriate estimation model, including the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test. The final model was selected based on the test results, followed by classical assumption testing to ensure the reliability of the regression model. The significance level was set at 5% ($\alpha = 0.05$) for hypothesis testing.

4. Results

The Chow test and the Hausman test are two types of statistical tests used in panel data analysis to select the most appropriate model for the data. The Chow test is used to determine whether the common effect model or the fixed effect model is more suitable, while the Hausman test is used to determine whether the fixed effect model or the random effect model is better.

Table 1. Chow and Hausman Test Result

Variable Dependency	Chi-Square	Probability	Results
Return on Assets	52.240313	0.0000	H0 is rejected. Fixed Effect.
Return on Assets	0.000000	1.0000	H0 is accepted. Random Effect

Based on Table 1, the results show that the cross-section probability value of the chi-square test is 0.0000, which is less than 0.05. This indicates that H0 is rejected, and the appropriate model is the fixed effect model. Meanwhile, the results of the Hausman Test show that the cross-section probability value for the ROA statistic is 1.0000, which is greater than 0.05. Therefore, H0 is accepted, and the random effect model is deemed appropriate.

Table 2. Lagrange Multiplier & F Test Results

Variable Dependency	Breusch-Pagan	F-statistic	Probability	Results
Return on Assets	8.213887		0.0042	H0 is rejected. Random Effect
		2.160636	0.028918	H0 is rejected.

Based on Table 2, the results show that the cross-section probability value of the Breusch-Pagan test is 0.0042, which is less than 0.05. This means that the null hypothesis (H0) is rejected, indicating that the appropriate model is the random effect model. Additionally, the results show that the F-statistic probability value is 0.028918, which is also less than 0.05. This implies that H0 is rejected, meaning that the independent variables—such as company age, leverage, liquidity, loss ratio, premium growth, asset tangibility, managerial efficiency, company size, GDP growth, and inflation—significantly affect the dependent variable, namely return on assets (ROA). Therefore, the regression model in this study is considered feasible for use.

Table 3. Goodness of Fit Test Results

Variable Dependency	R ²	Adjusted R ²
Return on Asset	0.214761	0.115364

Based on Table 3, which presents the results of the Goodness of Fit test (Adjusted R²), the adjusted R² value is 0.115364. This indicates that the independent variables—company age, leverage, liquidity, loss ratio, premium growth, asset tangibility, managerial efficiency, company size, GDP growth, and inflation—are able to explain 11.5364% of the variation in the dependent variable, namely Return on Assets (ROA). The remaining 88.4636% of the variation in ROA is explained by other factors not included in this model. Therefore, the relationship between the independent variables and ROA is considered weak.

Table 4 show descriptive statistics reveal considerable variation in the distribution and dispersion of the study variables. The Return on Assets (ROA) has a mean of 0.017287 with a standard deviation of 0.036093. The lowest ROA was recorded at -0.198300 by PT Harta Aman Pratama Tbk. in 2019, while the highest was 0.076700 by PT Victoria Insurance Tbk. in the same year. The age of the company averages 45.43 years, with a standard deviation of 18.39 years, ranging from 2 years (PT Bhakti Murti Artha Tbk., 2019) to 76 years (PT Maximus Graha Persada Tbk., 2023). Leverage shows a mean of 1.421879 with a standard deviation of 0.966701, with the lowest ratio at 0.131400 (PT Paninvest Tbk., 2022) and the highest at 4.798000 (PT Malacca Trust Wuwungan Insurance Tbk., 2023). Liquidity has a mean value of 2.303687 and a standard deviation of 1.823490, with a minimum of 1.180400 (PT Malacca Trust Wuwungan Insurance Tbk., 2023) and a maximum of 8.595500 (PT Paninvest Tbk., 2022). The loss ratio averages 0.494462 with a standard deviation of 0.484677, ranging from -0.828500 (PT Harta Aman Pratama Tbk., 2019) to 1.760500 (PT Sharia Life Insurance Jasa Mitra Abadi Tbk., 2019). Premium growth shows a mean of 0.132109 and a standard deviation of 0.343253, with a minimum of -0.359400 (PT Panin Financial Tbk., 2020) and a maximum of 1.981400 (PT Sharia Life Insurance Jasa Mitra Abadi Tbk., 2019). Asset tangibility averages 0.042539, ranging from 0.000300 (PT Bhakti Murti Artha Tbk., 2021) to 0.258300 (PT Asuransi Jasa Tania Tbk., 2020). Managerial efficiency has a mean of 0.793911 and a standard deviation of 1.351725, with extreme values between -8.170800 (PT Asuransi Maximus Graha Persada Tbk., 2020) and 7.665800 (PT Asuransi Harta Aman Pratama Tbk., 2019). Company size shows an average of 28.44277 with a standard deviation of 1.644417, ranging from 26.01170 to 33.09610. GDP growth averages 0.033100 with a standard deviation of 0.030787, while inflation has a mean of 0.029560 with a standard deviation of 0.013779.

Table 4. Descriptive Statistical Analysis Results

Variable	Observation	Minimum	Maximum	Mean	Std. Dev.
Return on assets	90	-0.198300	0.076700	0.017287	0.036093
Age of the company	90	2.000000	76.000000	45.43333	18.39642
Leverage	90	0.131400	4.798000	1.421879	0.966701
Liquidity	90	1.180400	8.595500	2.303687	1.823490
Loss Ratio	90	-0.828500	1.760500	0.494462	0.484677
Premium Growth	90	-0.359400	1.981400	0.132109	0.343253
Asset Tangibility	90	0.000300	0.258300	0.042539	0.054131

Variable	Observation	Minimum	Maximum	Mean	Std. Dev.
Managerial Efficiency	90	-8.170800	7.665800	0.793911	1.351725
Company Size	90	26.01170	33.09610	28.44277	1.644417
Growth of GDP	90	-0.027000	0.053100	0.033100	0.030787
Inflation	90	0.016800	0.055100	0.029560	0.013779

Table 5 show that the variables of company age ($p = 0.5200$), leverage ($p = 0.2403$), liquidity ($p = 0.1033$), loss ratio ($p = 0.9736$), premium growth ($p = 0.2068$), asset tangibility ($p = 0.8791$), company size ($p = 0.1836$), GDP growth ($p = 0.5953$), and inflation ($p = 0.6696$) all have probability values greater than 0.05. This indicates that these variables do not have a significant effect on the return on assets (ROA) of insurance companies. However, managerial efficiency shows a probability value of 0.0155, which is below the 0.05 significance level, indicating that managerial efficiency has a significant negative effect on ROA.

Table 5. T Test Results

Variable	Coefficient	Probability	Results	Information
Constanta	-0.114839	-	-	-
Age of the company	0.000192	0.5200	H0 accepted	Insignificant
Leverage	-0.006338	0.2403	H0 accepted	Insignificant
Liquidity	0.005001	0.1033	H0 accepted	Insignificant
Loss Ratio	0.000352	0.9736	H0 accepted	Insignificant
Premium Growth	0.013904	0.2068	H0 accepted	Insignificant
Asset Tangibility	-0.015372	0.8791	H0 accepted	Insignificant
Managerial Efficiency	-0.006254	0.0155	H0 rejected	Significant negatives
Company Size	0.004420	0.1836	H0 accepted	Insignificant
Growth of GDP	0.063961	0.5953	H0 accepted	Insignificant
Inflation	-0.112531	0.6696	H0 accepted	Insignificant

5. Discussion

The findings of this study indicate that company age has no significant effect on profitability in the insurance sector. Theoretically, this challenges the Resource-Based View (RBV), which posits that organizational maturity and accumulated experience should enhance performance. Practically, it suggests that operational efficiency and strategic management are more critical drivers of profitability than the length of a company's establishment. This result aligns with the findings of Siddik et al. (2022) and Wosti and Pradhan (2023), who observed that older firms may experience declining profitability due to reduced operational agility and higher

overhead costs. Furthermore, this study found no significant relationship between leverage and profitability. From a theoretical perspective, this finding contrasts with the Trade-Off Theory, which suggests that higher leverage can increase profitability through tax shields. However, in the insurance industry—where income is primarily driven by premium collections and investment returns—leverage plays a less prominent role. This result corroborates previous studies by Msomi and Nzama (2023) and Fali et al. (2020), who also found that higher leverage does not guarantee improved profitability in insurance firms. Practically, this indicates that Indonesian insurers prioritize risk management over aggressive debt financing.

Liquidity was found to have no significant effect on profitability, contrasting with the Liquidity-Profitability Trade-Off Theory, which suggests that higher liquidity enhances a firm's ability to meet obligations and, in turn, boosts profitability. In practice, insurance firms allocate substantial resources to long-term investments to support future claims, making short-term liquidity levels less influential on profitability. This finding aligns with the research of Camino-Mogro and Bermúdez-Barrezueta (2019). Additionally, excessively high liquidity may dilute potential returns from long-term investments. The analysis also shows that the loss ratio does not significantly affect profitability. Theoretically, this contradicts the Underwriting Profitability Theory, which posits that lower loss ratios should correlate with higher profitability. In practice, many insurance companies rely heavily on investment income rather than underwriting margins, making the loss ratio a weaker determinant of overall profitability. This finding is consistent with Hamal (2020), who emphasized that investment income can offset poor underwriting performance.

The study revealed that premium growth has no significant impact on profitability. This finding challenges the Market Growth Hypothesis, which assumes that higher revenue growth should positively influence profitability. In practice, even when premium income increases, insurers face challenges such as rising claim costs and regulatory obligations that erode profit margins. This aligns with studies by Al-Abedallat and Rumman (2024) and Khadka (2023), which highlight the importance of operational efficiency over revenue growth alone in driving profitability. The results also show that asset tangibility does not significantly affect profitability. This contrasts with the Collateral Theory, which suggests that higher tangible assets can improve financial performance through better credit access. However, for insurance companies, profitability is more dependent on intangible factors such as underwriting expertise and investment management. This finding is consistent with previous studies by Worku et al. (2024) and Ajao and Ogieriakhi (2018), which suggest that insurers with high tangible assets do not necessarily outperform those with lower tangibility.

This study found a significant negative effect of managerial efficiency on profitability. This outcome contradicts Agency Theory, which generally assumes that higher efficiency reduces agency costs and improves firm performance. However, an excessive focus on cost-cutting may reduce service quality and customer satisfaction, leading to declining profits in the long term. This finding aligns with Worku et al. (2024) and Nuhin & Suprayogi (2022), who emphasize the need for a balance between efficiency and investment in service quality. Company size was not found to have a significant effect on profitability. This challenges the Economies of Scale Theory, which suggests that larger firms should have cost advantages. Practically, this implies that strategic agility and management quality are more decisive factors than firm size in the Indonesian insurance context. The results support the findings of Worku et al. (2024) and Ajao & Ogieriakhi (2018), suggesting that small insurers with effective strategies can compete with larger firms.

GDP growth was found to have no significant effect on profitability. This result diverges from Macroeconomic Performance Theory, which posits that

macroeconomic growth should stimulate insurance demand and profitability. In practice, low insurance penetration and limited public awareness in Indonesia may reduce the sensitivity of insurer profitability to GDP growth. This aligns with the findings of Worku et al. (2024) and Ajao and Ogieriakhi (2018). Additionally, inflation was also found to have no significant effect on profitability. This finding challenges the Cost-Push Inflation Theory, which suggests that rising inflation erodes profitability by increasing operational costs. However, effective risk management strategies employed by insurance companies may help mitigate inflation risks. This is consistent with studies by Sinha & Bhattacharyya (2019) and Abebe & Abera (2019), which highlight the role of proactive risk management in maintaining profitability during inflationary periods. Overall, these findings offer new insights into the profitability dynamics of insurance companies in emerging markets like Indonesia. Theoretically, this study questions the universal applicability of established corporate finance and macroeconomic theories within the insurance sector context. Practically, it underscores the importance of internal management quality, risk management, and strategic agility over traditional financial indicators.

6. Conclusion

This study reveals that several internal and external factors commonly assumed to influence profitability in insurance companies do not show significant effects in the Indonesian context. Specifically, company age, leverage, liquidity, loss ratio, premium growth, asset tangibility, company size, GDP growth, and inflation were found to have no significant impact on Return on Assets (ROA). These findings challenge several established theories such as the Resource-Based View (RBV), trade-off theory, liquidity-profitability trade-off theory, underwriting profitability theory, market growth hypothesis, collateral theory, economies of scale theory, macroeconomic performance theory, and cost-push inflation theory. The only variable showing a significant relationship was managerial efficiency, which had a negative effect on profitability. This result contradicts Agency Theory, which typically suggests that increased efficiency reduces agency costs and should improve profitability. The study highlights that excessive cost-cutting, while improving efficiency ratios, may harm service quality and customer satisfaction, leading to declining profitability.

Given these findings, Indonesian insurance companies should prioritize strategic management, operational agility, and customer-centric service quality over traditional financial structuring approaches. Rather than focusing heavily on leverage, liquidity control, or asset accumulation, firms should invest in improving risk management systems, innovation, and service differentiation to sustain profitability. Additionally, companies should carefully evaluate managerial efficiency targets. Pursuing extreme operational cost reductions may backfire if it undermines service delivery. A balance between efficiency and investment in service quality is essential. For policymakers, the findings suggest that improving insurance literacy and market penetration could enhance the industry's responsiveness to macroeconomic factors like GDP growth.

This study is limited to listed insurance companies in Indonesia over the 2019–2023 period, which may restrict the generalizability of the findings to non-listed firms or insurers operating in other emerging economies. The reliance on secondary financial data also limits the ability to capture qualitative factors like managerial competence or customer satisfaction levels. For future research, scholars are encouraged to explore non-financial factors (e.g., customer satisfaction, technological adoption, regulatory changes) and conduct comparative studies across different countries or insurance sectors (e.g., life vs. non-life insurance). Testing mediation or moderation effects (such as how risk management capability moderates

the inflation-profitability relationship) could also provide richer theoretical and practical insights.

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Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.



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