THE EFFECT OF RISK-BASED CAPITAL AND CLAIM RATIO ON THE FINANCIAL PERFORMANCE OF INSURANCE COMPANIES

Nur Azizah[1]
Universitas Pembangunan Nasional "Veteran" Jawa Timur, Surabaya, Indonesia
21013010104@student.upnjatim.ac.id

Rida Perwita Sari[2]
Universitas Pembangunan Nasional "Veteran" Jawa Timur, Surabaya, Indonesia
ridaps.ak@upnjatim.ac.id

Abstract

The insurance industry has developed rapidly enough to cause intense competition between companies. In competition, it is necessary to have good work prospects and public trust, one of which is having a healthy financial performance. Financial performance can be influenced by several factors, namely risk-based capital and claim ratio. The study analyzed whether risk-based capital and claim ratios affect financial performance. The population of this study is insurance companies listed on the Indonesia Stock Exchange (IDX) in 2019-2023. This research uses quantitative methods with purposive sampling methods with a total sample of 15 companies over 5 5-year period. The data used in this study are secondary data obtained through the company's financial statements and annual reports. The results of this study indicate that risk-based capital affects financial performance. Meanwhile, the claim ratio does not affect financial performance.

Keywords: Financial Performance, Risk-Based Capital, Claim Ratio

INTRODUCTION

The growing times of economic actors will face uncertainties that can lead to potential risks in the future. This risk can be minimized by using insurance as a form of protection and security. Insurance is essential to overcoming various life risks, both basic risks such as the risk of death and risks related to property ownership (Hidayat & Yusniar, 2021). Insurance companies are institutions that are equivalent to banks, which operate in the field of services that serve the public to manage risks that will occur in the future (Tarsono et al., 2020). Insurance companies themselves have an essential position in economic growth because these services become facilitators of financial transactions in the country by changing risks and providing claims (Baraqat et al., 2022).

The insurance industry has developed rapidly enough to cause intense competition between companies. In competition, it is necessary to have good work prospects and public trust, one of which is having a healthy financial performance (Emaras et al., 2024). Economic performance is a complete picture of the company's condition within a certain period and is an achievement caused by the company's operational activities in utilizing its resources (Sumarlan et al., 2024). Financial performance can be measured using profitability ratios, one of which is Return On Assets (ROA).

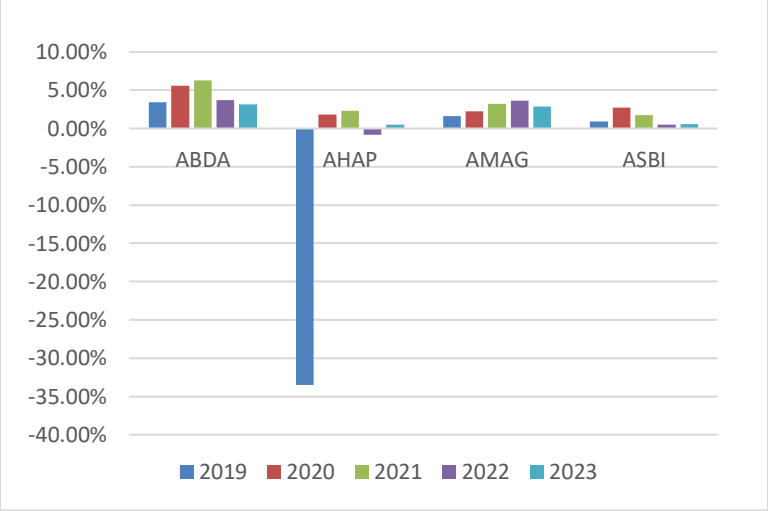

Figure 1
ROA Data of Insurance Companies in 2019-2023
Source: www.idx.co.id

Figure 1 shows data on return on assets in insurance companies from 2019 to 2023. One of the insurance companies, PT Asuransi Harta Aman Pratama Tbk (AHAP), experienced a significant decline in 2019; this was due to the company having high reinsurance premium payments and claim expenses in 2019, so it suffered losses and did not make a profit. The financial performance of insurance companies in Indonesia has recently become a public concern, one of which is due to the case that occurred at PT Asuransi Jiwasraya, as of August 2019, experiencing losses reaching Rp 13,7 billion. In addition, the company also has a risk-based capital value of -805%, which does not meet the solvency limit criteria (Utami & Werastuti, 2020). Another problem was also experienced by PT Asuransi Jiwa Adisarana Wanaartha (Wanaartha Life), which could not meet its solvency ratio, resulting in the revocation of its business license by the Financial Services Authority (OJK) (Purwanti, 2022). Furthermore, the same case was also experienced by PT Asuransi Jiwa Kresna (Kresna Life), namely the revocation of its business license by the Financial Services Authority (OJK) in 2024 because the company was unable to meet its solvency ratio. This began when Kresna Life admitted that it could not pay the policy and asked for a postponement of payments to policyholders (Nurdiana, 2024).

Several factors affect the financial performance of insurance companies, including risk-based capital and claim ratio. According to Hery et al. (2023), risk-based capital is a solvency ratio that shows the ability of assets and capital of insurance companies to meet their obligations. Based on the Financial Services Authority (OJK) regulation No. 71/POJK.05/2016 Concerning the Financial Health of Insurance Companies and Reinsurance Companies, each insurance company is required to set a solvency level target of at least 120% of the risk-based capital each year (Suwarni et al., 2023).

According to Kristanti et al. (2021), the claim ratio is an indicator that explains the comparison between claim costs and premium income. Claim expenses arise due to claims from policyholders who face losses caused by an accident. Claims paid by the company are a responsibility in return for an insurance agreement, where customers are required to pay certain premiums, and the company must pay claims to customers.

REVIEW OF LITERATURE

Financial Performance

The company's financial performance is a description of the level of achievement of the implementation of an activity in realizing the goals, mission, and vision of the organization, as stated in the strategic planning of an organization (Kamaruddin et al., 2022). Yusuf (2020) added that financial performance is defined as a measure of how efficiently and effectively the company's activities have been carried out in managing financial resources in a certain period. In this study, profitability is measured using the Return On Asset (ROA) ratio, which is a measurement of the profit generated by the company using its total assets. Return On Assets (ROA) describes the company's ability to generate operating profit after tax from all assets (Febrianty et al., 2022:129).

Risk-Based Capital

According to Hery et al. (2023), risk-based capital is a solvency ratio that can show the ability of a company's assets and capital to meet its obligations. According to Tarsono et al. (2020), risk-based capital is used as a measuring tool in assessing financial performance by measuring the level of solvency that has been determined by regulation. When insurance companies can meet the level of risk-based capital solvency of at least 120%, the health and financial performance of the company will improve (Stephanie & Ruslim, 2021).

Claim Ratio

The claim ratio is an indicator that explains the comparison between claim costs and premium income. The claim ratio shows the record of claims incurred and the quality of the claim closure efforts (Kristanti et al., 2021). The higher this ratio reflects poor the financial performance, while the smaller the ratio, the higher the level of economic health the company has (Utami & Werastuti, 2020).

RESEARCH METHOD

The type of research used in this research is a quantitative method, which is a method used to examine specific populations or samples to describe and test predetermined hypotheses (Sugiyono, 2022:16). The population in this study is insurance companies listed on the Indonesia Stock Exchange in 2019-2023. The population in this study was 18

companies, which were then eliminated using a purposive sampling method. Based on the elimination results, the number of samples in this study was 15 companies that fit the criteria with 5 years of observation. This study uses secondary data sourced from the company's financial statement and annual reports. The data analysis technique used in this study is the Structural Equation Modeling (SEM) method using the Partial Least Square (PLS) analysis tool.

RESULTS AND DISCUSSION

Outer Model

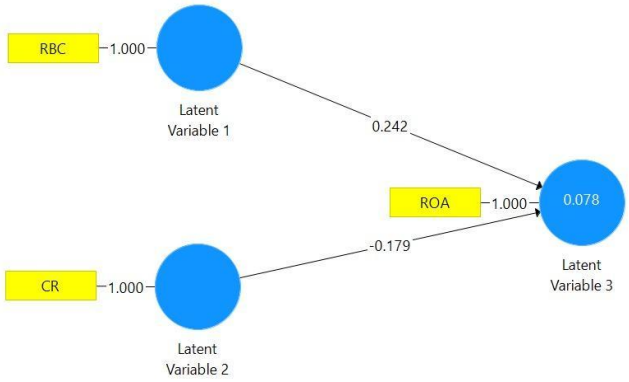

Figure 2
Outer Model
Sources: Output SmartPLS (2025)

Loading Factor

Loading Factor is used to measure latent variables with their indicators. The loading factor value is considered valid when it has a correlation value higher than 0,60 with the indicator being measured.

Table 1.
Loading Factor

	Risk-Based Capital (X1)	Claim Ratio (X2)	Financial Performance (Y)
X1	1000		
X2		1000	
Y			1000

Sources: Output SmartPLS (2025)

Table 1 shows the loading factor value of each latent variable in this study. These results are valid because the loading factor value exceeds 0,60, namely 1000.

Average Variance Extracted (AVE)

Table 2
Average Variance Extracted (AVE)

	Variable	AVE
X1	Risk-Based Capital	1000
X2	Claim Ratio	1000
Y	Financial Performance	1000

Sources: Output SmartPLS (2025)

The AVE value in this study, which has a value criterion greater than 0,5, is valid. Based on Table 2 shows that the AVE value for each variable is more significant than 0,5. These results indicate that each variable in this study has met the criteria and is considered valid.

Cross-Loading Factor

The loading Factor is a comparison of the loading value on the intended latent variable with other variables. The Cross Loading Factor is valid when it has a latent variable value that is greater than the value of other latent variables.

Table 3
Cross-Loading Factor

	Risk-Based Capital (X1)	Claim Ratio (X2)	Financial Performance (Y)
X1	1000	0,150	0,215
X2	0,150	1000	-0,143
Y	0,215	-0,143	1000

Sources: Output SmartPLS (2025)

Based on table 3 shows that the cross-loading factor value of each intended latent variable is greater than the value of other latent variables, which can be said to meet the discriminant validity test criteria.

Fornnel Lacker

Table 4
Fornnel Lacker

Variable	Score Fornell Lacker		
	X1	X2	Y
Risk-Based Capital (X1)	1000		

Claim Ratio (X2)	0,150	1000	
Financial Performance (Y)	0,215	-0,143	1000

Sources: Output SmartPLS (2025)

The table above shows the Fornnel Lacker value of each variable, which shows that each variable has an AVE square root value more significant than the correlation with other latent variables, so that it can be said to be valid or meet the discriminant validity test.

Inner Model

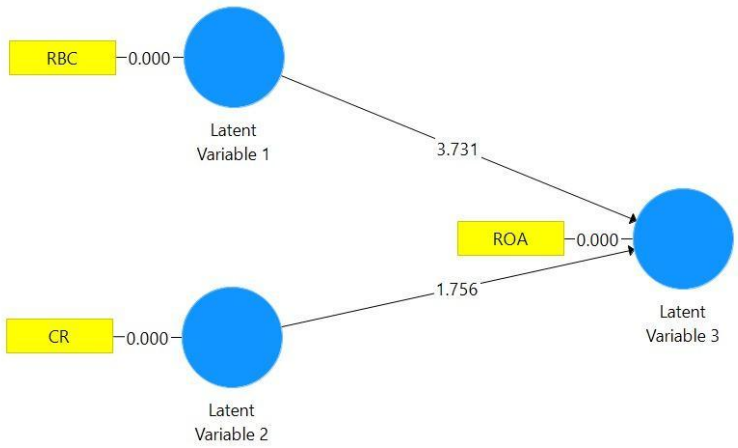

Figure 3
Inner Model
Sources: Output SmartPLS (2025)

Inner model evaluation is carried out using R-Square (R2) to describe the magnitude of the influence of independent latent variables on dependent latent variables. The R-Square value is 0,67, the influence is considered strong, the value of 0,33 is regarded as a moderate influence, and the value of 0,19 is viewed as a weak influence. The following R-Square test results in this study are presented in Table 5.

Table 5
R-Square Score

	R-Square
Financial Performance	0,078

Sources: Output SmartPLS Tahun 2025

The table above shows the result of the R-Square test on the financial performance variable as the dependent variable (Y) is 0,078 or 7,8%. This can be interpreted as a weak

value because <0,19. These results indicate that the risk-based capital and claim ratio variables can affect the company's financial performance by 7,8%, and other variables influence the remaining 92,2%.

Hypothesis Testing

Table 6
Hypothesis Testing

	Path Coefficient	P-Value
Risk-Based Capital > Financial Performance	0,242	0,000
Claim Ratio > Financial Performance	-0,179	0,080

Sources: Output SmartPLS (2025)

Based on Table 6, hypothesis testing can be described as follows.

H_1: Risk-Based Capital affects financial performance

The results of hypothesis testing show a P-value of 0,000<0,05, and the result of the path coefficient is 0,242. These results prove that the risk-based capital variable has a positive and significant effect on the company's financial performance. Therefore, H1 is accepted.

H_2: Claim Ratio affects financial performance

The hypothesis test results show a p-value of 0,080>0,05, and the result of the path coefficient is -0,179. These results indicate that the claim ratio variable does not affect the company's financial performance, so H_2 is rejected.

The effect of risk-based capital on financial performance

The results of the hypothesis test show that risk-based capital has a significant and positive effect on the financial performance of insurance companies. This shows that the higher the level of risk-based capital, the better the economic performance of insurance companies. In the Financial Services Authority (OJK) regulation Number 71/POJK.05/2016 concerning the financial health of insurance and reinsurance companies is required to achieve a target solvency level of at least 120%. In this case, it shows that the higher the risk-based capital, the better the level of financial performance of the company.

The results of this hypothesis test are also in line with previous research conducted by Utami & Werastuti (2020) and Hidayat & Yusniar (2021), which shows the results that risk-based capital has a positive effect on financial performance which shows a greater level of risk-based capital of an insurance company, the healthier the company's financial

condition, and this reflects the company's ability to manage financial risks and comply with applicable regulations.

The effect of claim ratio on financial performance

The results of this hypothesis test show that the claim ratio does not affect the financial performance of insurance companies. This is in line with previous research conducted by Tarsono et al. (2020), Pramusinta & Aryani (2023), and Hidayat & Yusniar (2021), which shows that the results of claim ratio research do not affect financial performance because the claim ratio is still considered within normal limits. The claim ratio in insurance companies is considered within reasonable or customary limits between 30%-45% according to the insurance business line.

Claim ratio does not affect financial performance and can also be caused by the company's ability to fully pay its claim obligations through the percentage of premium income used in paying claims. In this case, even though the claim ratio is high, the company can still maintain good financial performance if it has a premium income that is high enough.

CONCLUSION

From this study, it can be concluded that risk-based capital affects financial performance. Meanwhile, the claim ratio does not affect economic performance. The limitation of this study is the relatively small number of samples, which can affect the generalization of research results. In addition, a reasonably small sample size allows for more significant data variation that can affect the significance of the relationship between research variables. The suggestions that can be given for further research are to develop this research by adding other variables related to insurance companies, such as premium growth, underwriting profit, and expense ratio. Future research is also recommended to use a larger sample size so that the results obtained can be representative and describe the condition of the insurance industry more broadly.

REFERENCES

Baraqat, F. S. Q., Hussein, J., Mahmoud, O. A. R., & Bayyoud, M. (2022). Analysis Of The Factors Affecting The Financial Performance Of Insurance Companies Listed On The

Palestine Stock Exchange. *Indian Journal of Finance and Banking*, *9*(1), 213–229. https://doi.org/10.46281/ijfb.v9i1.1679

Emaras, T. A., Zulkifli, D. U., & Fitriyati, N. (2024). Pengaruh Early Warning System, Return on Asset, dan Return on Equity. *INNOVATIVE: Journal Of Social Science Research*, *4*(1), 1816–1830.

Febrianty, Annisa, M. L., Hamzah, R. S., & Amalia, R. F. (2022). *Panduan Analisis Laporan Keuangan*. Perkumpulan Rumah Cemerlang Indonesia.

Hery, Y., Hady, H., & Arsjah, R. J. (2023). The Determinants And Implementation Of Risk-Based Capital On The Financial Performance Of Insurance Companies In Indonesia. *UTSAHA (Journal of Entrepreneurship)*, *2*(3), 28–43. https://doi.org/10.56943/joe.v2i3.340

Hidayat, D. A., & Yusniar, M. W. (2021). Determinan Kinerja Keuangan pada Perusahaan Asuransi. *Syntax Literate ; Jurnal Ilmiah Indonesia*, *6*(2), 608–619. https://doi.org/10.36418/syntax-literate.v6i2.2236

Kamaruddin, Soemitra, A., & Nawaw, Z. M. (2022). Factors Affecting The Financial Performance Of Islamic Insurance Companies In Indonesia Using Surplus On Contribution (SOC). *E-QIEN : Jurnal Ekonomi Dan Bisnis*, *9*(1), 157–165.

Kristanti, F. T., Syafia, N. M. N., & Aripin, Z. (2021). An Early Warning System Of Life Insurance Companies Distress In Indonesia. *Multicultural Education*, *7*(7), 237–245. https://doi.org/10.5281/zenodo.5097501

Nurdiana, A. (2024, March 8). Awal Mula Kisah Kasus Kresna Life. *Kontan Business Insight*. https://insight.kontan.co.id/news/awal-mula-kisah-kasus-kresna-life

Pramusinta, A., & Aryani, Y. A. (2023). The Effect of Growth of Net Premium, Claim Ratio, RBC, and Retention Ratio on the Financial Performance of Insurance Companies in the ASEAN Region. *JOURNAL OF ECONOMICS, FINANCE AND MANAGEMENT STUDIES*, *06*(01). https://doi.org/10.47191/jefms/v6-i1-22

Purwanti, T. (2022, December 5). Kronologi Kasus Wanaartha Life Hingga Akhirnya Ditutup. *CNBC Indonesia*. https://www.cnbcindonesia.com/market/20221205171421-17-393934/kronologi-kasus-wanaartha-life-hingga-akhirnya-ditutup

Stephanie, F. G., & Ruslim, H. (2021). Pengaruh Rasio Keuangan Terhadap Kinerja Keuangan Perusahaan Asuransi. *Jurnal Kontemporer Akuntansi*, *1*(2), 68–77. www.money.kompas.com

Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (M. Dr. Ir. Sutopo.S.Pd, Ed.). ALFABETA.

Sumarlan, A., Kamaluddin, Fachruzzaman, & Robinson. (2024). The influence of capital structure and operational performance on financial performance with governance and financial risk as mediation in Insurance Companies in Indonesia. *Journal of Economics and Business Letters*, *4*(1), 54–71. https://doi.org/10.55942/jebl.v4i1.305

Suwarni, K., Ulupui, I. G. K. A., & Khairunnisa, H. (2023). Pengaruh Rasio EWS Dan RBC Terhadap Kinerja Keuangan Perusahaan Asuransi yang Terdaftar di BEI Tahun 2015-2019. *JURNAL AKUNTANSI, PERPAJAKAN DAN AUDITING*, *4*(1), 15–32.

Tarsono, O., Ardheta, P. A., & Amriyani, R. (2020). The Influence of Net Premium Growth, Claim Ratio and Risk-Based Capital on the Financial Performance of Life Insurance Companies. *Advances in Economics, Business and Management Research*, *127*.

Utami, I. G. A. M. P., & Werastuti, D. N. S. (2020). Pengaruh Mekanisme Corporate Governance, Early Warning System, Risk Based Capital, dan Hasil Investasi Terhadap Kinerja Keuangan. *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha*, *11*(2), 54–64.

Yusuf, Y. (2020). Analisis Rasio Keuangan dalam Menilai Kinerja Keuangan pada PT. Asuransi Jiwa Sinarmas MSIG Tbk yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2016-2019. *POINT Jurnal Ekonomi Dan Manajemen*, *2*(2). https://ejournals.umma.ac.id/indeks.php/point