International Conference on Finance, Economics, Management, Accounting and Informatics

"Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development"

Market Response to Financial Signals in Indonesia's Post-Pandemic Insurance Sector

Alisa Christiani Br Sinaga[1]*, Rimky Mandala Putra Simanjuntak[2], Mulatua P Silalahi[3]

[1,2,3] *Accounting Department, Universitas Methodist Indonesia*

*alisachristianibrsinaga@gmail.com

Abstract

This investigation examines market responses to financial signals within Indonesia's insurance sector during 2019-2023, emphasizing post-pandemic dynamics. Employing secondary data from 16 insurance companies listed on the Indonesia Stock Exchange, multiple linear regression analysis explores net profit, cash flow, and firm size effects on stock prices. Findings demonstrate that exclusively firm size significantly influences stock prices ($\beta = 0.110$, $p = 0.028$), whereas net profit and cash flow exhibit positive but statistically insignificant effects. These results validate signaling theory and reveal flight-to-quality investor behavior amid economic uncertainty. This research contributes substantially to understanding Indonesia's post-pandemic capital market dynamics, particularly within the insurance sector experiencing considerable transformation through economic disruption and regulatory intervention, emphasizing investor preference for stability indicators over short-term performance metrics during crisis recovery.

Keywords: *Cash Flow, Firm Size, Insurance Sector, Net Profit, Stock Price*

Introduction

Indonesia's insurance sector has undergone substantial transformation following the COVID-19 pandemic, which disrupted public confidence and investment activities. Multiple companies faced scrutiny for defaults and obligation failures, prompting regulatory intervention and comprehensive reform initiatives (Financial Services Authority, 2023). Financial reports function as signaling mechanisms, whereby indicators including earnings, cash flows, and firm size undergo investor scrutiny for decision-making purposes (Zhang et al., 2021). Given post-pandemic uncertainty circumstances, analyzing investor responses to these signals offers valuable insights into market behavioral patterns. This investigation aims to evaluate selected financial indicator impacts on stock price movements within Indonesia's insurance subsector during the recovery period.

The insurance industry occupies a critical position in Indonesia's financial ecosystem, providing risk protection and contributing to economic stability. However, the pandemic exposed vulnerabilities in several insurance companies, including liquidity challenges and underwriting losses, necessitating government and regulatory intervention (Xhafka et al., 2023). Understanding which financial signals most effectively communicate firm quality during turbulent periods provides practical implications for both investors and management.

This study addresses three primary research questions: First, how do profitability signals influence stock valuations in post-crisis insurance markets? Second, does cash flow information provide incremental explanatory power beyond accounting earnings? Third, to what extent does firm size serve as a proxy for stability and risk during industry restructuring?

Literature Review

Signaling Theory

Signaling theory posits that firms transmit financial signals to reduce information asymmetry and establish investor confidence (Thérond, 2016). Positive performance metrics typically indicate robust future prospects and managerial competence (Chiappori & Salanié, 2013). In insurance contexts, financial disclosure assumes heightened importance due to long-term liability structures and regulatory oversight requirements.

Contemporary signaling theory emphasizes that signal credibility depends on costs associated with false signaling (Zhang et al., 2021). High-quality firms willingly incur disclosure costs because they possess genuine positive information, whereas low-quality firms cannot profitably mimic such behavior. This theoretical framework predicts that investors should respond positively to credible financial signals, particularly during periods when information uncertainty increases (Chen & Wang, 2020).

Stock Price Determinants

Stock prices reflect investor assessments of firm value based on available information. In efficient markets, prices rapidly incorporate new information from financial disclosures. However, during crisis periods, market efficiency may decline as uncertainty increases and liquidity constraints emerge (Thompson & Garcia, 2022). Insurance company stock prices specifically respond to factors including underwriting profitability, investment portfolio performance, regulatory capital adequacy, and competitive positioning (Tkachenko et al., 2022).

Net Profit and Market Valuation

Net profit represents the bottom-line measure of firm performance and historically serves as a primary valuation input. Accounting earnings provide summary measures of value creation during specific periods and predict future cash-generating capacity (Miller & Anderson, 2021). However, insurance industry profitability exhibits unique characteristics including underwriting cycles, reserve adequacy concerns, and investment income volatility that may complicate profit signal interpretation.

Prior research demonstrates mixed evidence regarding earnings' value relevance in insurance contexts. Suhartono (2022) identified causal relationships between capital structure and profitability in insurance firms, suggesting that profitability signals interact with leverage information. Conversely, Kristanti et al. (2022) highlighted financial distress factors in life insurance companies, indicating that profitability alone may insufficiently predict firm sustainability.

Cash Flow Information Value

Cash flow statements provide information about liquidity and financial flexibility beyond accrual-based earnings. Operating cash flows indicate sustainable value generation, while investing and financing flows reveal strategic positioning and capital allocation decisions (Roberts & Kumar, 2021). In insurance industries, cash flow timing differs substantially from revenue recognition due to long-tail liabilities, potentially enhancing cash flow information value.

Contemporary research emphasizes that cash flow signals gain importance during economic stress periods when earnings quality concerns intensify (Davis & Martinez, 2023). Investors may scrutinize cash flows more carefully when accounting discretion increases or when liquidity risks emerge. However, regulatory reserve requirements in insurance may constrain cash flow variability, potentially limiting its differentiation value.

Firm Size Effects

Firm size serves as an indicator determining company magnitude based on criteria including total assets, market capitalization, and revenue scale (Johnson & Lee, 2020). Larger companies typically possess greater resilience facing business challenges and higher profit-generating capacity due to substantial asset support. Enhanced firm size indicates superior prospects and performance, encouraging investor participation due to more promising returns (Kim et al., 2021).

In insurance contexts, size correlates with diversification benefits, reputational capital, regulatory compliance capacity, and systemic importance. Large insurers enjoy economies of scale in administration, broader distribution networks, and enhanced bargaining power with reinsurers (Haueter, 2020). During industry stress periods, flight-to-quality dynamics may amplify size premiums as investors seek stability (Tkachenko et al., 2022).

Indonesian Insurance Sector Context

Indonesia's insurance penetration remains below regional averages despite substantial growth potential. The sector experienced rapid expansion preceding the pandemic but encountered significant challenges during 2020-2021, including premium growth deceleration, investment losses, and several high-profile company failures (Rukia, 2024). Regulatory authorities responded through enhanced supervision, capital adequacy requirements, and industry consolidation initiatives.

The post-pandemic period represents a critical transition phase where industry restructuring, digital transformation, and regulatory reform simultaneously influence market dynamics (Susanto, 2022). Understanding which financial signals effectively communicate firm quality during this transition provides valuable insights for stakeholders navigating uncertainty.

Hypotheses Development

The Effect of Net Profit on Stock Price

Profitability represents fundamental value drivers that rational investors should incorporate into valuation assessments. Higher net profit indicates effective resource utilization, competitive positioning, and management quality. Signaling theory predicts that profit announcements convey positive information reducing valuation uncertainty. Prior empirical evidence demonstrates positive associations between earnings and stock returns across various contexts (Almahadin & Oroud, 2023; Chen et al., 2022).

H_1: Net profit has a significant positive effect on stock price

The Effect of Cash Flow on Stock Price

Cash flow information complements earnings by revealing liquidity position and financial flexibility. Strong operating cash flows indicate sustainable business models less vulnerable to accounting manipulation. During economic uncertainty, investors may prioritize cash flow signals over accrual-based earnings due to quality concerns. Theoretical frameworks predict that cash flow disclosure reduces information asymmetry and positively influences valuations (Khidmat et al., 2020; Nguyen & Nguyen, 2020).

H_2: Cash flow has a significant positive effect on stock price

The Effect of Firm Size on Stock Price

Firm size proxies for multiple dimensions including diversification, operational stability, regulatory compliance capacity, and systemic importance. Larger organizations demonstrate greater survival probability during industry stress and possess superior access to capital markets. Flight-to-quality behavior during uncertain periods suggests investors assign premiums to size-related stability indicators. Empirical evidence consistently documents positive size-valuation relationships in financial services contexts (Dang et al., 2020; Harymawan et al., 2021).

H_3: Firm size has a significant positive effect on stock price

The Simultaneous Effect of Net Profit, Cash Flow, and Firm Size on Stock Price

While individual financial indicators provide valuable information, investors typically evaluate multiple signals simultaneously when making investment decisions. The integration of profitability metrics, liquidity indicators, and size characteristics offers comprehensive assessment of organizational financial health and stability. According to multifactor asset pricing models, stock valuations reflect aggregate effects of various firm-specific attributes rather than isolated determinants (Racicot & Rentz, 2020; Zhang et al., 2021).

The complementary nature of these financial signals suggests their combined explanatory power exceeds individual effects. Net profit signals earning capacity, cash flow demonstrates financial sustainability, while firm size indicates market presence and operational resilience. During post-pandemic recovery periods, this holistic information set becomes particularly relevant as investors seek companies demonstrating balanced financial strength across multiple dimensions (Pástor & Vorsatz, 2020; Ramelli & Wagner, 2020).

Empirical studies examining insurance sector dynamics confirm that composite financial indicators better predict stock price movements than single variables, especially during periods of heightened uncertainty and

market volatility (Eling & Huang, 2021; Sherif & Xu, 2023). The simultaneous consideration of profitability, liquidity, and scale factors aligns with rational expectations theory, suggesting market participants efficiently process multidimensional information sets when forming valuation expectations (Bai et al., 2022; Liu et al., 2024).

H_4: Net profit, cash flow, and firm size simultaneously have a significant positive effect on stock price

Methods

Research Design

This investigation employs quantitative methodology with explanatory research design to examine causal relationships between financial signals and stock prices. The study utilizes archival secondary data from published financial statements and market price databases, enabling objective measurement and statistical analysis of hypothesized relationships.

Types and Sources of Data

This study employs secondary data sourced from the Indonesia Stock Exchange (IDX) through the official website *www.idx.co.id*, which facilitates convenient data access and provides comprehensive datasets. Companies within the insurance subsector during 2019-2023 constitute the research subjects. The research timeline spans from October 2024 to May 2025, allowing sufficient time for data collection, validation, and analysis procedures.

Secondary data sources include audited annual financial statements, quarterly financial reports, stock price databases, and regulatory filings. Data reliability is ensured through cross-validation against multiple sources including company investor relations portals and financial data aggregators.

Population and Sample

The research population comprises all insurance companies listed on the Indonesia Stock Exchange during the observation period. Using purposive sampling methodology, companies are selected based on the following criteria:

1. Insurance companies continuously listed on IDX throughout 2019-2023
2. Companies publishing complete audited financial statements annually during the observation period
3. Companies with complete stock price data without extended trading suspensions
4. Companies providing comprehensive disclosure of required financial variables

   From the initial population, 16 insurance companies satisfy all selection criteria, generating 80 firm-year observations (16 companies × 5 years). This sample size provides adequate statistical power for multiple regression analysis while maintaining data quality standards.

Variable Definition and Measurement

Dependent Variable

Stock Price (Y):

Measured as year-end closing price adjusted for corporate actions including stock splits, stock dividends, and rights issues. Closing prices are recorded in Indonesian Rupiah (IDR) and obtained from IDX official databases. Year-end pricing eliminates intra-year volatility while capturing market assessment after annual financial information disclosure.

Independent Variables

Net Profit (X_1):

Annual net income after tax as reported in audited income statements, measured in billion IDR. Net profit represents comprehensive performance encompassing underwriting results, investment income, and operating expenses. This variable captures profitability signals that theoretically influence investor valuation assessments.

Cash Flow (X_2):
Total cash flow comprising operating, investing, and financing activities from cash flow statements, measured in billion IDR. This aggregate measure captures overall liquidity position and financial flexibility. Alternative specifications examining individual cash flow components are considered in robustness checks.

Firm Size (X_3):
Natural logarithm of total assets (Ln[Total Assets]), providing scale normalization and reducing heteroscedasticity concerns. Logarithmic transformation addresses skewness in asset distributions and facilitates coefficient interpretation as percentage relationships. Total assets comprehensively represent firm magnitude encompassing insurance reserves, investment portfolios, and operational infrastructure.

Results and Discussion

Multiple Linear Analysis

Table 1. Multiple Linear Analysis

Model		B
1	(Constant)	2,681
	Net Profit	,010
	Total Cash Flow	,009
	Firm Size	,110

Source: SPSS processed results, 2025

Based on regression analysis, the multiple linear regression equation is formulated as follows:

Stock Price = 2.681 + 0.010(Net Profit) + 0.009(Cash Flow) + 0.110(Firm Size) + ε

Coefficient interpretation:

1. **Constant ($\alpha = 2.681$):** When all independent variables equal zero, the baseline stock price is estimated at IDR 2,681. However, this intercept has limited practical interpretation given that actual firm size values never approach zero.
2. **Net Profit ($\beta_1 = 0.010$):** Each 1 billion IDR increase in net profit associates with IDR 10 increase in stock price, holding other variables constant. This positive relationship aligns with signaling theory predictions, though statistical insignificance ($p = 0.274$) suggests weak empirical support.
3. **Total Cash Flow ($\beta_2 = 0.009$):** Each 1 billion IDR increase in total cash flow associates with IDR 9 increase in stock price, controlling for other factors. Again, the positive direction supports theoretical expectations, but insignificance ($p = 0.159$) indicates limited empirical relationship strength.
4. **Firm Size ($\beta_3 = 0.110$):** Each one-unit increase in logarithmic firm size (approximately 2.72 times increase in total assets) associates with IDR 110 increase in stock price, holding other variables constant. This relationship achieves statistical significance ($p = 0.028$), providing strong empirical support for size effects.

Hypothesis Testing
Partial Test (t-Test)

Table 2. Individual Hypothesis Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,681	1,457		1,840	,070
	Net Profit	,010	,009	,124	1,102	,274
	Total Cash Flow	,009	,006	,153	1,422	,159
	Firm Size	,110	,049	,252	2,239	,028

Source: SPSS processed results, 2025

Using significance level $\alpha = 0.05$ and degrees of freedom (df) = 76, the critical t-table value equals 1.990.
H_1 Test Result: Net profit demonstrates t-calculated = 1.102 < t-table = 1.990, with significance 0.274 > 0.05. Therefore, H_1 is rejected. Net profit does not significantly affect stock price in Indonesia's post-pandemic insurance sector.
H_2 Test Result: Total cash flow shows t-calculated = 1.422 < t-table = 1.990, with significance 0.159 > 0.05. Therefore, H_2 is rejected. Cash flow does not significantly influence stock price during the observation period.
H_3 Test Result: Firm size exhibits t-calculated = 2.239 > t-table = 1.990, with significance 0.028 < 0.05. Therefore, H_3 is accepted. Firm size significantly and positively affects stock price, supporting the hypothesis.

Simultaneous Test (F-Test)

Table 4. Simultaneous Hypothesis Test - ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	51,847,362	3	17,282,454	3.487	0.020
Residual	376,518,241	76	4,954,187		
Total	428,365,603	79			

Source: SPSS processed results, 2025
The F-statistic of 3.487 with significance 0.020 < 0.05 indicates that independent variables collectively exert significant effects on stock price. Using F-table value of 2.72 ($df_1 = 3$, $df_2 = 76$, $\alpha = 0.05$), F-calculated (3.487) exceeds F-table (2.72), confirming that the overall regression model is statistically significant.

Determination Coefficient Test (Adjusted R^2)

Table 4. Model Summary - Coefficient of Determination

Model	R	R Square	Adjusted R Square
1	,348[a]	,121	,086

Source: SPSS processed results, 2025

The adjusted R^2 value of 0.086 indicates that the three examined financial signals (net profit, cash flow, and firm size) collectively explain 8.6% of stock price variation in Indonesia's insurance sector during 2019-2023. The remaining 91.4% is attributable to other factors not included in the model, such as regulatory changes, market sentiment, corporate governance quality, competitive positioning, and macroeconomic conditions.

While this explanatory power appears modest, it is consistent with prior research examining financial signal effects in insurance contexts during volatile periods. The low R^2 suggests that stock price determination in post-pandemic insurance markets involves complex multifactorial processes extending beyond traditional financial statement information.

Discussion

The Influence of Net Profit on Stock Price

Based on regression analysis results shown in Table 2, Net Profit demonstrates insignificant effect because calculated t-score of 1.102 falls below t-table score (1.990) or sig t value of 0.274 exceeds 0.05, confirming Net Profit does not significantly affect Stock Price. Therefore, the first hypothesis (H_1), Net Profit positively and significantly impacts Stock Price, is rejected.

These findings indicate Net Profit measured in billions of IDR does not significantly influence Stock Price in Indonesia's post-pandemic insurance sector. According to signaling theory providing perspective on how organizations communicate financial information, companies demonstrating superior profitability should theoretically signal positive prospects to market participants. However, this relationship lacks empirical support during the observation period (Harrison & Freeman, 2020).

Net Profit's insignificant effect on stock price suggests that profitability metrics may have diminished relevance during volatile post-pandemic periods. Many investors and stakeholders increasingly emphasize other factors beyond traditional profitability measures such as risk management capabilities and operational resilience (Davis & Brown, 2020). These results align with investigations conducted by Thompson & Wilson (2022) and Martinez & Rodriguez (2021). However, findings contrast with Kumar & Singh (2022) stating net profit demonstrates significant effect on Stock Price.

The Influence of Total Cash Flow on Stock Price

Based on regression analysis results presented in Table 2, Total Cash Flow demonstrates positive effect because beta coefficient value is positive at 0.009 but proves insignificant because significance value of 0.159 exceeds 0.05. Therefore, the second hypothesis (H_2), Total Cash Flow positively and significantly affects Stock Price, is rejected. Consequently, Total Cash Flow measured in billions of IDR exhibits positive but insignificant impact on stock price.

The positive but insignificant effect of Total Cash Flow variable proves that 9 IDR increases in stock price occur for each 1 billion IDR increase in total cash flow, though this relationship lacks statistical reliability. According to signaling theory, organizations must continuously demonstrate financial health through cash generation capabilities (Harrison & Freeman, 2020). Organizational requirements to maintain adequate liquidity increase with investor demands for financial stability.

Organizations possessing stronger cash flows receive more positive market acceptance and possess opportunities to weather economic uncertainties when demonstrating superior cash management. This occurs because strong cash flow positions in financial reports provide transparent methods for organizations showing financial resilience. Consequently, market participants grant confidence to organizations (White & Green, 2022).

Conversely, signaling theory indicates this data type serves as signals for investors evaluating and comparing how organizations manage liquidity in volatile periods (Chen et al., 2021). The findings in this investigation remain consistent with research conducted by Anderson et al. (2023). However, these findings contradict Miller & Taylor (2023) research concluding Total Cash Flow positively and significantly affects stock price.

The Influence of Firm Size on Stock Price

Based on regression analysis results shown in Table 2, Firm Size demonstrates significant effect because calculated t-score of 2.239 exceeds t-table score (1.990) or sig t value of 0.028 falls below 0.05, confirming Firm Size affects Stock Price. Therefore, the third hypothesis (H_3), Firm Size positively and significantly impacts Stock Price, is accepted.

These findings indicate Firm Size measured using logarithmic transformation of total assets significantly influences Stock Price in Indonesia's insurance sector during 2019-2023. According to legitimacy theory and size-effect theory, larger companies possess greater market credibility and visibility, attracting more investor attention. This directly impacts stock price positively (Harrison & Freeman, 2020).
Firm Size substantially affects stock price because organizational scale increasingly gains relevance among investors seeking stability. Many investors and stakeholders increasingly emphasize size-related factors such as market presence, diversification capabilities, and systemic importance alongside traditional financial metrics (Davis & Brown, 2020). These results align with investigations conducted by Thompson & Wilson (2022) and Martinez & Rodriguez (2021).

The Simultaneous Influence of Net Profit, Total Cash Flow, and Firm Size on Stock Price
Based on simultaneous test (F-Test) findings shown in Table 4, significance score of 0.020 < 0.05 was obtained. Therefore, Net Profit, Total Cash Flow, and Firm Size simultaneously affect Stock Price. This indicates significance value of 0.020 demonstrates error possibility in concluding simultaneous influence exists is extremely small at only 2.0%. In other words, 98.0% confidence exists that this research model validly explains variations in Stock Price. This constitutes positive information for investors investing in insurance companies attentive to these factors.
Signaling theory suggests organizations strive communicating financial health through multiple indicators, especially regarding profitability, liquidity, and scale contexts. In this case, superior combinations of Net Profit, Total Cash Flow, and Firm Size can increase organizational credibility in investor, analyst, and market perspectives.
Organizations demonstrating balanced financial performance across these dimensions are perceived as more stable and committed to sustainable value creation, consequently strengthening market confidence. This creates mutually beneficial correlations between organizations and stakeholders, such as investors increasingly concerned about comprehensive financial health (Harrison & Freeman, 2020). Subsequently, organizations demonstrating superior performance across multiple financial dimensions can attract additional investors, potentially increasing stock price.
The adjusted R^2 value of 0.086 indicates that these three financial signals collectively explain 8.6% of stock price variation. While this explanatory power appears modest, it reflects the complex multifactorial nature of stock price determination in post-pandemic insurance markets, where factors beyond traditional financial statements play substantial roles (Garcia & Smith, 2021).

Conclusion
From comprehensive discussion and obtained results, conclusions include:

1. Net Profit demonstrates positive but insignificant influence on Stock Price in companies within insurance sector listed on Indonesia Stock Exchange during 2019-2023 post-pandemic period.
2. Total Cash Flow shows positive but insignificant influence on Stock Price in companies within insurance sector listed on Indonesia Stock Exchange during 2019-2023 post-pandemic period.
3. Firm Size demonstrates positive and significant influence on Stock Price in companies within insurance sector listed on Indonesia Stock Exchange during 2019-2023 post-pandemic period.
4. Net Profit, Total Cash Flow, and Firm Size simultaneously affect Stock Price of companies in insurance sector listed on Indonesia Stock Exchange during 2019-2023 post-pandemic period.

Recommendations
Based on research limitations identified above, researchers suggest the following:

1. Further researchers should extend observation periods beyond the immediate post-pandemic years, for example to seven years or more, ensuring obtained results capture longer-term trends and achieve greater accuracy and comprehensiveness.

2. Future researchers can utilize other research objects beyond insurance sector companies, including companies in other financial sectors listed on Indonesia Stock Exchange. This intention allows every business across various industries to identify influencing factors specific to their contexts.
3. To assist other parties, particularly investors, in decision-making processes, further research can incorporate additional variables such as regulatory compliance metrics, corporate governance quality, competitive positioning, market sentiment indicators, and macroeconomic factors believed to affect stock price in insurance sector.

References

Almahadin, H. A., & Oroud, Y. (2023). Earnings quality and stock price synchronicity: Evidence from emerging markets. *Journal of Financial Reporting and Accounting*, 21(3), 456-478.

Anderson, J., Roberts, K., & Thompson, L. (2023). Cash flow signals and market valuation in financial services: A post-pandemic perspective. *International Journal of Banking and Finance*, 18(2), 145-167.

Bai, M., Qin, Y., & Wang, J. (2022). Multifactor models in emerging market equity valuation: Evidence from Asia-Pacific insurers. *Pacific-Basin Finance Journal*, 74, 101801.

Chen, H., & Wang, S. (2020). Information asymmetry and stock price reactions: The role of financial disclosure quality. *Asia-Pacific Journal of Financial Studies*, 49(4), 612-638.

Chen, L., Zhang, Y., & Liu, H. (2021). Liquidity signals and investor confidence in volatile markets: Evidence from insurance companies. *Journal of Risk and Insurance*, 88(3), 701-728.

Chen, X., Kumar, A., & Zhang, L. (2022). Profitability signals and market response in Asian insurance markets. *Insurance: Mathematics and Economics*, 106, 234-251.

Chiappori, P. A., & Salanié, B. (2013). Asymmetric information in insurance markets: Predictions and tests. In *Handbook of Insurance* (2nd ed., pp. 397-422). Springer.

Dang, C., Li, Z. F., & Yang, C. (2020). Measuring firm size in empirical corporate finance. *Journal of Banking & Finance*, 86, 159-176.

Davis, M., & Brown, R. (2020). Beyond profitability: Risk management and operational resilience in post-crisis financial markets. *Journal of Financial Stability*, 48, 100745.

Davis, P., & Martinez, C. (2023). Cash flow quality and earnings management during economic stress: Evidence from insurance firms. *Accounting & Finance*, 63(1), 891-916.

Eling, M., & Huang, W. (2021). An efficiency comparison of the non-life insurance industry in the BRIC countries. *European Journal of Operational Research*, 226(3), 577-591.

Financial Services Authority (Otoritas Jasa Keuangan). (2023). *Laporan Perkembangan Industri Asuransi Indonesia 2022-2023*. Jakarta: OJK.

Garcia, R., & Smith, T. (2021). Multifactorial determinants of stock prices in emerging financial markets. *Emerging Markets Review*, 47, 100795.

Harrison, J. S., & Freeman, R. E. (2020). Stakeholder theory as an ethical approach to effective management: Applying the theory to multiple contexts. *Review of Business Management*, 22(4), 858-872.

Harymawan, I., Nasih, M., Ratri, M. C., & Nowland, J. (2021). CEO busyness and firm performance: Evidence from Indonesia. *Heliyon*, 7(6), e07088.

Haueter, N. V. (2020). Size and efficiency in insurance markets: A historical perspective. In *Studies in Economic History* (pp. 134-156). Palgrave Macmillan.

Johnson, M., & Lee, S. (2020). Firm size proxies and their implications for corporate finance research. *Financial Management*, 49(2), 339-368.

Khidmat, W. B., Khan, M. A., & Ullah, H. (2020). The determinants of leverage: Evidence from panel data. *Cogent Economics & Finance*, 8(1), 1838693.

Kim, J., Park, K., & Singh, H. (2021). Firm size, profitability, and stock returns: New evidence from Asian emerging markets. *Pacific-Basin Finance Journal*, 66, 101512.

Kristanti, F. T., Rahayu, S., & Huda, A. N. (2022). Financial distress prediction in life insurance companies: The Indonesian case. *Journal of Asian Finance, Economics and Business*, 9(1), 117-126.

Kumar, R., & Singh, P. (2022). Net profit margins and stock price dynamics in insurance sector: Evidence from emerging Asia. *Asia-Pacific Financial Markets*, 29(3), 445-468.

Liu, J., Wang, M., & Zhou, Y. (2024). Information processing and stock valuation in uncertain environments: A behavioral perspective. *Journal of Behavioral Finance*, 25(1), 78-95.

Martinez, A., & Rodriguez, F. (2021). Financial signals and market efficiency in Latin American insurance markets. *Latin American Business Review*, 22(4), 387-410.

Miller, K., & Anderson, T. (2021). Accounting earnings and future cash flow predictions: Evidence from the insurance industry. *Journal of Accounting Research*, 59(2), 623-658.

Miller, S., & Taylor, D. (2023). Cash flow statements and equity valuation: Contemporary evidence from financial institutions. *Contemporary Accounting Research*, 40(1), 412-445.

Nguyen, T., & Nguyen, H. (2020). The impact of cash flow on stock prices: Evidence from Vietnam insurance companies. *Journal of Asian Business and Economic Studies*, 27(3), 234-248.

Pástor, Ľ., & Vorsatz, M. B. (2020). Mutual fund performance and flows during the COVID-19 crisis. *Review of Asset Pricing Studies*, 10(4), 791-833.

Racicot, F. É., & Rentz, W. F. (2020). Testing Fama-French's new five-factor asset pricing model: Evidence using robust instruments. *Applied Economics Letters*, 27(15), 1259-1263.

Ramelli, S., & Wagner, A. F. (2020). Feverish stock price reactions to COVID-19. *Review of Corporate Finance Studies*, 9(3), 622-655.

Roberts, G., & Kumar, V. (2021). Strategic cash flow management and firm value in insurance organizations. *International Journal of Managerial Finance*, 17(4), 588-609.

Rukia, A. (2024). Transformasi digital industri asuransi Indonesia pasca pandemi COVID-19. *Jurnal Ekonomi dan Bisnis Indonesia*, 39(1), 45-62.

Sherif, M., & Xu, J. (2023). Insurance company stock returns and financial signals during crisis periods. *Geneva Papers on Risk and Insurance*, 48(2), 312-339.

Suhartono, E. (2022). Capital structure and profitability: Evidence from Indonesian insurance companies. *International Journal of Economics and Financial Issues*, 12(2), 88-95.

Susanto, H. (2022). Regulatory reform and digital transformation in Indonesia's insurance industry. *Journal of Financial Regulation and Compliance*, 30(3), 345-363.

Thérond, P. É. (2016). Collective risk models and credibility theory. In *Computational Actuarial Science with R* (pp. 199-228). Chapman and Hall/CRC.

Thompson, R., & Garcia, M. (2022). Market efficiency and crisis-period information processing in insurance equity markets. *Journal of Financial Markets*, 58, 100644.

Thompson, W., & Wilson, J. (2022). Size effects and flight-to-quality in post-pandemic financial services. *Financial Analysts Journal*, 78(4), 67-85.

Tkachenko, V., Kwilinski, A., & Kaminska, B. (2022). Financial performance determinants in insurance companies: A comparative analysis. *Insurance Markets and Companies*, 13(1), 28-42.

White, J., & Green, P. (2022). Liquidity management signals and investor confidence in financial institutions. *Journal of Corporate Finance*, 74, 102206.

Xhafka, E., Nurja, I., & Kukeli, A. (2023). COVID-19 pandemic impact on insurance industry: Challenges and recovery strategies. *International Journal of Financial Studies*, 11(2), 68.

Zhang, Y., Chen, H., & Wang, L. (2021). Signaling theory and information disclosure in insurance markets: A systematic review. *Risk Management and Insurance Review*, 24(3), 287-315.