



DOI: <https://doi.org/10.38035/gijea.v4i2>
<https://creativecommons.org/licenses/by/4.0/>

Earnings Informativeness in Emerging Markets: The Role of Income Smoothing, Foreign Ownership, and Information Asymmetry

Ira Febrianti¹, Johannes Simatupang², Enggar Diah Puspa Arum³, Tona Aurora Lubis⁴

¹Universitas Jambi, Jambi, Indonesia, ira.febrianti@unbari.ac.id

²Universitas Jambi, Jambi, Indonesia, johannes@unja.ac.id

³Universitas Jambi, Jambi, Indonesia, enggar_diah@unja.ac.id

⁴Universitas Jambi, Jambi, Indonesia, tonalubis@unja.ac.id

Corresponding Author: ira.febrianti@unbari.ac.id¹

Abstract: This study examines the effect of income smoothing and foreign ownership on earnings informativeness with information asymmetry as a moderating variable in emerging markets. Earnings informativeness reflects the ability of accounting earnings to provide relevant information for investors in predicting future corporate performance. This study employs a quantitative approach using panel data from 55 companies listed on the Indonesia Stock Exchange during the 2020–2022 period, resulting in 165 firm-year observations. Earnings informativeness is measured using the Future Earnings Response Coefficient (FERC), while information asymmetry is measured using the bid-ask spread. Data analysis is conducted using panel data regression with the Random Effect Model (REM). The results show that foreign ownership has a significant negative effect on earnings informativeness, whereas income smoothing has no significant effect. In addition, information asymmetry does not moderate the relationship between income smoothing, foreign ownership, and earnings informativeness. However, information asymmetry has a significant direct effect on earnings informativeness, indicating that the information environment plays an important role in how investors interpret financial information in emerging markets. The findings also suggest that FERC remains a useful forward-looking measure for examining earnings informativeness in emerging markets, particularly during periods characterized by economic uncertainty and information asymmetry.

Keyword: Earnings Informativeness, Future Earnings Response Coefficient, Foreign Ownership, Information Asymmetry, Emerging Markets.

INTRODUCTION

Earnings information is one of the primary sources used by investors in making decisions in the capital market. Investors use earnings not only to evaluate current corporate performance but also to form expectations regarding future company prospects. Therefore,

earnings informativeness becomes an important aspect in explaining how the market responds to accounting information disclosed by firms. In capital market literature, earnings informativeness reflects the ability of earnings information to represent a company's economic condition and influence stock prices (Scott, 2015).

Traditionally, earnings informativeness has commonly been measured using the Earnings Response Coefficient (ERC), which reflects the sensitivity of stock returns to current earnings (Easton & Harris, 1991). However, ERC has limitations because it focuses only on current-period earnings and does not fully capture investors' expectations regarding future corporate performance. To address this limitation, Collins et al. (1994) introduced the Future Earnings Response Coefficient (FERC), which measures the extent to which current stock prices reflect information about future earnings. Therefore, FERC is considered more forward-looking than ERC in explaining earnings informativeness. Lundholm and Myers (2002) further explained that stock prices may contain information regarding future earnings before such earnings are formally reported.

Earnings informativeness is influenced by various factors related to the quality of the information environment, corporate transparency, and investor interpretation of financial information (Decourt et al., 2024; Onasis, 2025). One factor that may affect earnings informativeness is income smoothing, which refers to managerial practices intended to reduce earnings fluctuations in order to present more stable financial performance over time. From the perspective of agency theory, such practices arise due to conflicts of interest between management and shareholders (Jensen & Meckling, 1976). Although stable earnings may help investors predict future performance, opportunistic income smoothing may reduce earnings quality because reported earnings no longer fully reflect the company's actual economic condition (Sinuraya, 2024).

Another factor that may influence earnings informativeness is foreign ownership. Foreign investors generally possess broader access to information, stronger monitoring capabilities, and higher demands for corporate transparency than domestic investors. Consequently, foreign ownership is often associated with improved disclosure quality and market efficiency in emerging markets.

The relationship between income smoothing, foreign ownership, and earnings informativeness may also depend on information asymmetry. Information asymmetry occurs when management possesses more complete information regarding company conditions and future prospects than external investors (Healy & Palepu, 2001). High levels of information asymmetry may reduce investors' ability to evaluate the credibility of earnings information and weaken the market's ability to incorporate future earnings expectations into stock prices (Onasis, 2025).

Information asymmetry remains an important issue in emerging markets, including Indonesia, where disclosure quality and investor protection tend to vary across firms. Several financial reporting scandals involving Indonesian public companies, such as PT Garuda Indonesia and PT Envy Technologies Indonesia Tbk, demonstrate how weak information quality may reduce investor confidence in reported earnings.

Previous studies on earnings informativeness have mainly focused on ERC rather than FERC, while empirical findings regarding the effects of income smoothing and foreign ownership remain inconsistent. Although FERC has been widely used in developed markets, its application in emerging markets remains relatively limited. Moreover, the moderating role of information asymmetry in the relationship between income smoothing, foreign ownership, and earnings informativeness has not been adequately explored.

Recent studies also emphasize the importance of information asymmetry, foreign ownership, and disclosure quality in shaping market responses in emerging markets. Han (2022) found that foreign ownership may improve transparency and reduce earnings

management in emerging economies. Meanwhile, Hong et al. (2023) highlighted that information asymmetry remains an important factor affecting investor interpretation of accounting information. Nguyen et al. (2024) further explained that foreign ownership may influence corporate disclosure quality and market monitoring mechanisms in emerging markets.

Several studies in emerging markets also suggest that disclosure quality, earnings quality, and corporate transparency play important roles in shaping investor responses to accounting information and improving market efficiency (Siregar & Utama, 2008; Boubaker et al., 2022; Kim & Sohn, 2023). In addition, stronger information environments may enhance investors' ability to incorporate future earnings expectations into stock prices, particularly in emerging capital markets characterized by relatively high uncertainty and lower investor protection.

Based on these issues, this study aims to examine the effect of income smoothing and foreign ownership on earnings informativeness with information asymmetry as a moderating variable in companies listed on the Indonesia Stock Exchange during the 2020–2022 period. This study contributes to the literature by extending the application of FERC within an emerging market context and by examining the moderating role of information asymmetry in the relationship between income smoothing, foreign ownership, and earnings informativeness.

METHOD

This study employs a quantitative research approach using panel data analysis to examine the effect of income smoothing and foreign ownership on earnings informativeness with information asymmetry as a moderating variable. Panel data analysis was selected because it combines time-series and cross-sectional data, allowing more efficient estimation and better identification of variations across companies and periods (Gujarati & Porter, 2009).

The population of this study consists of companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2022 period. The observation period was selected because it represents a period affected by the COVID-19 pandemic and post-pandemic economic uncertainty, which may have influenced investor behavior and earnings informativeness in the capital market. The sample was selected using a purposive sampling method based on several criteria: companies listed consecutively during the observation period, companies publishing complete annual reports and financial statements, companies providing complete data for all research variables, and companies not experiencing delisting during the research period. Based on these criteria, the final sample consisted of 55 companies with a total of 165 firm-year observations. The sample includes firms from various industrial sectors listed on the Indonesia Stock Exchange, excluding financial sector companies due to their different financial reporting characteristics and regulatory environment.

This study uses secondary data obtained from annual reports, financial statements, stock price data published by the Indonesia Stock Exchange, and other supporting sources related to the capital market. The data include earnings information, foreign ownership data, stock prices, and bid-ask spread data used to measure information asymmetry.

Earnings informativeness is measured using the Future Earnings Response Coefficient (FERC) developed by Collins et al. (1994). FERC is considered more forward-looking than the traditional Earnings Response Coefficient (ERC) because it captures the extent to which current stock prices reflect information regarding future earnings. The FERC model is formulated as follows:

$$R_{it} = \beta_0 + \beta_1 X_{it-1} + \beta_2 X_{it} + \beta_3 X_{it+1} + \varepsilon_{it}$$

Where:

- R_{it} = stock return of firm i in period t
- X_{it-1} = earnings in the previous period
- X_{it} = current earnings
- X_{it+1} = earnings in the subsequent period
- β₃ = proxy of Future Earnings Response Coefficient (FERC)
- ε_{it} = error term

Income smoothing is measured using the Eckel Index developed by Eckel (1981), which compares the coefficient of variation of earnings changes with the coefficient of variation of sales changes. Companies are categorized as practicing *income smoothing* when the coefficient of variation of earnings changes is lower than the coefficient of variation of sales changes.

The Eckel Index is formulated as follows:

$$\text{The Eckel Index (IE)} = \frac{CV_{\Delta E}}{CV_{\Delta S}}$$

The coefficient of variation is calculated using the following formula:

$$\frac{\sqrt{\sum \frac{(\Delta x - \bar{\Delta X})^2}{N - 1}}}{\bar{\Delta X}}$$

Where:

- IE = Eckel Index
- CV = coefficient of variation
- ΔI = change in net income
- ΔS = change in sales
- SD = standard deviation of changes in income or sales
- \bar{X} = average value of changes in income or sales
- N = number of observation periods

A company is classified as practicing income smoothing when CV ΔI < CV ΔS and is assigned a value of 1. Conversely, companies with CV ΔI > CV ΔS are classified as non-income smoothing firms and are assigned a value of 0 (Gayatri & Wirakusuma, 2012).

Foreign ownership is measured using the percentage of shares owned by foreign investors relative to total outstanding shares.

The bid-ask spread formula is expressed as follows:

$$FI_{it} = \sum \frac{\text{Total shares owned by foreign investors}_{it}}{\text{Total outstanding shares}_{it}}$$

Information asymmetry refers to a condition in which management possesses more complete information than external investors regarding the company’s condition and future prospects. In this study, information asymmetry is measured using the bid-ask spread because it is considered capable of reflecting the level of information uncertainty in the market (Healy & Palepu, 2001).

$$BAS_{it} = \frac{\sum (\text{Askit} - \text{Bidit})}{\sum ((\text{Askit} + \text{Bidit})/2)}$$

Where:

- BAS = Bid-Ask Spread
- Ask = stock ask price
- Bid = stock bid price

Data analysis was conducted using panel data regression with the assistance of EViews software. The analysis procedures included descriptive statistics, panel regression model selection using the Chow test, Hausman test, and Lagrange Multiplier test, followed by hypothesis testing using the t-test and coefficient of determination (R²). Based on the overall model selection results, this study employs the Random Effect Model (REM) as the most

appropriate model for hypothesis testing. The Random Effect Model (REM) was selected because it is considered more appropriate for capturing variations across firms while maintaining estimation efficiency in panel data analysis.

Multicollinearity was assessed by examining the correlation among independent variables. The results indicate that no severe multicollinearity problem was identified among the variables included in the regression model.

The regression models used in this study are formulated as follows:

Main Model:

$$FERC = \alpha + \beta_1ISM + \beta_2FO + \epsilon$$

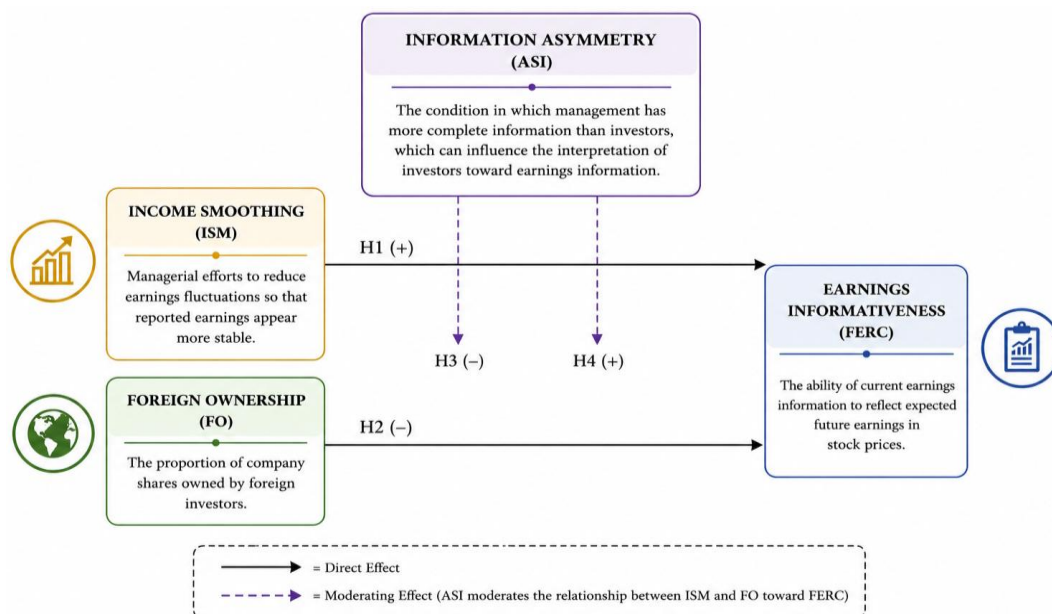
Moderation Model:

$$FERC = \alpha + \beta_1ISM + \beta_2FO + \beta_3ASI + \beta_4(ISM \times ASI) + \beta_5(FO \times ASI) + \epsilon$$

Where:

- FERC = earnings informativeness measured using the Future Earnings Response Coefficient
- ISM = income smoothing
- FO = foreign ownership
- ASI = information asymmetry
- ISM × ASI = interaction between income smoothing and information asymmetry
- FO × ASI = interaction between foreign ownership and information asymmetry
- A = constant
- B = regression coefficient
- E = error term

Presents the conceptual framework of this study.



Source: Developed by the authors (2026)

Figure 1. Conceptual Framework

RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistics are used to provide a general overview of the characteristics of the research data, including the minimum value, maximum value, mean, and standard deviation of each research variable. The variables in this study consist of earnings informativeness

measured using the *Future Earnings Response Coefficient* (FERC), *income smoothing* (ISM), *foreign ownership* (FO), and *information asymmetry* (ASI).

Table 1. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
FERC	-1.610403	0.520720	-0.353041	0.959422
ISM	-116.4000	254.2400	2.127636	23.183141
FO	0.000000	89.32000	13.77055	26.84813
ASI	0.000000	0.060000	0.007030	0.009385

Note:

FERC = *Future Earnings Response Coefficient*

ISM = *Income smoothing*

FO = *Foreign ownership*

ASI = *Information asymmetry*.

Source: Processed secondary data (2026)

Based on Table 1, the earnings informativeness variable measured using FERC has a mean value of -0.353041 with a standard deviation of 0.959422. These results indicate that the ability of stock prices to reflect future earnings varies across firms during the observation period.

The *income smoothing* variable (ISM) has a mean value of 2.127636 and a standard deviation of 23.183141, indicating considerable variation in earnings smoothing practices among sample firms. The minimum and maximum values also suggest that the level of *income smoothing* differs substantially across companies.

The *foreign ownership* variable (FO) has an average value of 13.77055 with a standard deviation of 26.84813. This finding indicates that the proportion of foreign ownership varies among companies, ranging from firms without foreign ownership to firms with relatively high foreign ownership levels.

Meanwhile, the *information asymmetry* variable (ASI) has a mean value of 0.007030 with a standard deviation of 0.009385. This result indicates differences in the level of information asymmetry among firms during the research period. Higher values of information asymmetry indicate greater information imbalance between management and investors in the capital market.

Panel Regression Model Selection

Before hypothesis testing, panel regression model selection was conducted using the Chow test, Hausman test, and Lagrange Multiplier test to determine the most appropriate estimation model.

Table 2. Panel Regression Model Selection

Test	Probability	Decision
Chow Test	0.0000	Fixed Effect Model
Hausman Test	1.0000	Random Effect Model
Lagrange Multiplier Test	0.0000	Random Effect Model

Source: Processed secondary data using EViews 13

Based on Table 2, the Chow test result shows a probability value of 0.0000, which is lower than 0.05, indicating that the *Fixed Effect Model* (FEM) is preferred over the *Common Effect Model* (CEM). Furthermore, the Hausman test result shows a probability value of 1.0000, which is higher than 0.05, indicating that the *Random Effect Model* (REM) is more appropriate than the *Fixed Effect Model* (FEM).

In addition, the Lagrange Multiplier test result shows a Breusch-Pagan probability value of 0.0000, indicating that the *Random Effect Model* (REM) is preferred over the

Common Effect Model (CEM). Therefore, based on the overall model selection results, this study employs the *Random Effect Model* (REM) as the most appropriate model for hypothesis testing.

Hypothesis Testing

Hypothesis testing was conducted to examine the effect of *income smoothing* and *foreign ownership* on earnings informativeness with *information asymmetry* as a moderating variable.

Table 3. Hypothesis Testing Results

Variable	Coefficient	Std. Error	t-Statistic	Probability
ISM	0.00002	0.003192	0.005473	0.4980
FO	-0.00997	0.003229	-3.088614	0.0027***
ASI	309.4706	149.1435	2.074986	0.0193**
ISM*ASI	-0.23678	0.395909	-0.598058	0.2754
FO*ASI	0.05717	0.376661	0.151788	0.4398

Note:

FERC = *Future Earnings Response Coefficient*

ISM = *income smoothing*

FO = *foreign ownership*

ASI = *information asymmetry*

ISM*ASI, FO*ASI = interaction effects of the moderating variable *information asymmetry*

Significance levels:

*** significant at 1%; ** significant at 5%; * significant at 10%.

Source: Processed secondary data (2026)

Based on Table 3, income smoothing (ISM) has a probability value of 0.4980, which is greater than 0.05, indicating that income smoothing does not significantly affect earnings informativeness. This finding suggests that earnings smoothing practices do not necessarily influence the ability of earnings information to reflect future corporate earnings. This result is inconsistent with Tucker and Zarowin (2006), who argued that income smoothing may improve earnings informativeness by increasing earnings predictability. One possible explanation is that investors in the Indonesian capital market may not directly interpret income smoothing practices as either informative or opportunistic behavior. Instead, investors may place greater emphasis on broader disclosure quality, corporate transparency, market conditions, and future growth prospects when evaluating earnings information.

In contrast, foreign ownership (FO) has a coefficient value of -0.00997 with a probability value of 0.0027, indicating a negative and significant effect on earnings informativeness. The coefficient value is relatively small compared to the standard deviation of FERC (0.959422), indicating that although the effect is statistically significant, the economic magnitude remains relatively limited. This finding suggests that the presence of foreign investors influences how the market interprets corporate earnings information. One possible explanation is that foreign investors may possess superior access to information compared to domestic investors. As a result, certain information may already be incorporated into stock prices before public disclosure, reducing market reactions to reported earnings. This finding indicates that foreign ownership does not always improve earnings informativeness in emerging markets. The result is also consistent with several studies in emerging markets suggesting that foreign investors may possess superior monitoring capabilities and broader access to private information, causing information to be reflected in stock prices before earnings announcements. This finding is also consistent with Siregar and Utama (2008), who argued that ownership structure and monitoring mechanisms may influence the quality of financial reporting and investor responses in emerging markets.

The information asymmetry variable (ASI) has a coefficient value of 309.4706 with a probability value of 0.0193, indicating that information asymmetry significantly affects earnings informativeness. Although the coefficient value appears relatively large, the ASI variable itself has a relatively small scale, with values ranging from 0.0000 to 0.0600. Therefore, relatively small changes in information asymmetry may generate substantial changes in market responses to future earnings information. This finding supports signaling theory, which explains that market responses depend heavily on the credibility and quality of information received by investors (Spence, 1973). In emerging markets characterized by relatively lower transparency and investor protection, the information environment becomes an important factor influencing how investors interpret earnings information and incorporate future earnings expectations into stock prices.

Furthermore, the moderating effect results show that the interaction between income smoothing, and information asymmetry ($ISM \times ASI$) has a probability value of 0.2754, while the interaction between foreign ownership and information asymmetry ($FO \times ASI$) has a probability value of 0.4398. These findings indicate that information asymmetry does not moderate the relationship between income smoothing, foreign ownership, and earnings informativeness. The insignificant moderating effects suggest that information asymmetry may function more as a direct determinant of earnings informativeness rather than as a variable that changes the relationship between corporate characteristics and market responses to earnings information. This finding may also indicate that investors have partially incorporated information asymmetry conditions into stock prices, reducing its moderating role in the relationship between income smoothing, foreign ownership, and FERC. In addition, the 2020–2022 observation period, which reflects the COVID-19 and post-pandemic period, may have influenced investor behavior and increased uncertainty in the capital market. Under such conditions, investors may rely more heavily on broader market information and future expectations rather than solely on reported earnings figures.

CONCLUSION

This study examines the effect of income smoothing and foreign ownership on earnings informativeness with information asymmetry as a moderating variable in companies listed on the Indonesia Stock Exchange during the 2020–2022 period. Earnings informativeness is measured using the Future Earnings Response Coefficient (FERC), which provides a forward-looking perspective regarding the ability of stock prices to reflect future earnings information.

The findings indicate that income smoothing does not significantly affect earnings informativeness, suggesting that investors do not necessarily interpret earnings smoothing practices as an indicator of lower earnings quality. In contrast, foreign ownership has a significant negative effect on earnings informativeness, indicating that the presence of foreign investors may reduce market reactions to reported earnings because certain information has already been incorporated into stock prices before public disclosure. In addition, information asymmetry has a significant direct effect on earnings informativeness, demonstrating that the quality of the information environment plays an important role in shaping investors' interpretations of financial information in emerging markets.

However, the results also show that information asymmetry does not moderate the relationship between income smoothing, foreign ownership, and earnings informativeness. These findings suggest that information asymmetry functions more as a direct determinant of earnings informativeness rather than as a variable that changes the relationship between corporate characteristics and market responses to earnings information.

Overall, the findings indicate that investor responses to future earnings information in emerging markets are strongly influenced by the quality of the information environment, disclosure credibility, and market transparency. The study also suggests that FERC remains a useful forward-looking measure for examining earnings informativeness in emerging markets, although its effectiveness may depend on institutional quality and investor confidence.

Several limitations should be acknowledged. The relatively short observation period and the use of secondary data may not fully capture qualitative aspects of managerial behavior and disclosure practices. In addition, this study does not include other control variables that may influence earnings informativeness. Future research is encouraged to incorporate additional variables, extend the observation period, and conduct cross-country comparisons to provide broader insights into earnings informativeness in emerging markets.

REFERENCES

- Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, 6(2), 159–178.
- Boubaker, S., Mansali, H., & Rjiba, H. (2022). Corporate transparency and earnings informativeness in emerging markets. *Research in International Business and Finance*, 60, 101597.
- Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency? *Journal of Accounting Research*, 42(2), 207–252.
- Collins, D. W., Kothari, S. P., Shanken, J., & Sloan, R. G. (1994). Lack of timeliness and noise as explanations for the low contemporaneous return-earnings association. *Journal of Accounting and Economics*, 18(3), 289–324.
- Dechow, P. M., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2–3), 344–401.
- Decourt, R. F., Schiehl, E., & Prociandy, J. L. (2024). Information environment and earnings informativeness in emerging markets. *Journal of International Accounting Research*, 23(1), 45–67.
- Easton, P. D., & Harris, T. S. (1991). Earnings as an explanatory variable for returns. *Journal of Accounting Research*, 29(1), 19–36.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26(2), 301–325.
- Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2004). Costs of equity and earnings attributes. *The Accounting Review*, 79(4), 967–1010.
- Gayatri, I. A. D., & Wirakusuma, M. G. (2012). Pengaruh corporate governance, ukuran perusahaan dan leverage terhadap praktik perataan laba. *E-Jurnal Akuntansi Universitas Udayana*, 3(2), 345–358.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.
- Han, M., Li, K., & Yin, X. (2022). Foreign ownership and earnings management. *Global Finance Journal*, 54, 100678.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1–3), 405–440.
- Hong, N. T. H., Anh, N. T., Hoang, N. T. V., & Minh, D. N. (2023). Corporate governance, external financing, and earnings management: New evidence from an emerging market. *Future Business Journal*, 9(1), 1–18.

- Hutagaol-Martowidjojo, Y., Yuwono, J. D., & Pirzada, K. (2024). Earnings quality, stock price synchronicity and foreign ownership: Evidence of ASX200 firms. *International Journal of Disclosure and Governance*, 21(3), 476–487.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Kim, J., & Sohn, B. C. (2023). Information asymmetry and stock price informativeness: Evidence from emerging capital markets. *Pacific-Basin Finance Journal*, 78, 101947.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6), 1113–1155.
- Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69(3), 505–527.
- Lundholm, R., & Myers, L. A. (2002). Bringing the future forward: The effect of disclosure on the return-earnings relation. *Journal of Accounting Research*, 40(3), 809–839.
- Nguyen, T. H., Tran, M. D., & Dang, V. A. (2024). Foreign ownership and corporate disclosure quality: Evidence from emerging markets. *Journal of Asian Economics*, 89, 101678.
- Onasis, K. (2025). Information asymmetry and future earnings informativeness in emerging capital markets. *Asian Review of Accounting*, 33(1), 55–74.
- Salihu, I. A., Annuar, H. A., & Sheikh Obid, S. N. (2015). Foreign investors' interests and corporate tax avoidance: Evidence from an emerging economy. *Journal of Contemporary Accounting & Economics*, 11(2), 138–147.
- Scott, W. R. (2015). *Financial accounting theory* (7th ed.). Pearson Education.
- Sinuraya, J. J. (2024). Income smoothing and earnings quality in emerging markets: Evidence from Indonesia. *Jurnal Keuangan dan Perbankan*, 28(1), 77–91.
- Siregar, S. V., & Utama, S. (2008). Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *The International Journal of Accounting*, 43(1), 1–27.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374.
- Tucker, J. W., & Zarowin, P. A. (2006). Does income smoothing improve earnings informativeness? *The Accounting Review*, 81(1), 251–270.