

EARNINGS MANAGEMENT IN THE CONSTRUCTION SECTOR: AN EMPIRICAL ANALYSIS OF INVESTMENT, DISTRESS, AND ASYMMETRY IN INDONESIA

Diki Zachariah^{1*}, Haninun²

^{1,2}Faculty of Business Economics, Accounting Study Program, University of Bandar Lampung, Indonesia

*Corresponding Author:

diki.21021019@student.ubl.ac.id

Abstract

This study aims to analyze the influence of investment opportunity set, financial distress, and information asymmetry on earning management in building construction companies listed on the Indonesia Stock Exchange for the 2021-2023 period. This study uses a quantitative approach that applies multiple linear regression analysis methods to identify the influence of each independent variable on the dependent variable. Sample selection was carried out by purposive sampling method which produced 30 samples from a total of 10 companies over a period of 3 years. The results of the study show that investment opportunity set has a significant negative effect on earning management while financial distress and information asymmetry have a significant positive effect on earning management. The more investment opportunities a company has, the more likely it is to reduce the tendency of earning management, while financial distress and information asymmetry actually increase the likelihood of earning management.

Keywords: Earning Management, Investment Opportunity Set, Financial Distress, Information Asymmetry

1. Introduction

The increasingly stringent development of the business world requires every company to be able to develop a significant competitive advantage in its industrial field. The company certainly needs financial resources to support its various operational activities (Devanka) et al. 2022). Companies compile financial statements accurately as one of their ways to survive and get funding support (Siregar, 2016). According to PSAK 201 of 2022, financial statements are prepared with the aim of presenting relevant information related to the financial condition, performance, and cash flow of entities that can be used by stakeholders in economic decision-making. Financial statements are a very important means of information for stakeholders in assessing the performance of an entity (Aini et al., 2024). If investors are interested in buying the company's shares, they will assess the financial statements that show good performance results (Aulia & Haninun, 2023). The success or failure of a company can be measured through information about profits recorded in financial statements (Putri & Rahmini, 2021; (Aini et al., 2024). However, the information contained in financial statements is often misused by management for specific purposes with earning management practices (Sari & Wahidahwati, 2016).

Earning management is an effort by the manager by choosing a certain accounting policy to achieve the desired goals (Agustia, 2013) Earning management refers to the deliberate actions by managers in determining a company's profit, which is generally done with the aim of optimizing their personal well-being (Felicya & Sutrisno, 2020). The phenomenon of earning management practices in Indonesia, as reflected in the case of

PT. Waskita Karya Tbk, shows that there is manipulation of financial statements that is often carried out to achieve certain goals, be it to improve the company's image in the eyes of investors or other stakeholders. In this case, PT. Waskita Karya recorded a very significant profit in the 2017-2018 period, which reached Rp 4.2-4.6 trillion. This profit set a record high in the company's history, but in 2020, the company suffered a huge loss of Rp 9.3 trillion (Binekasri, 2023). Contradictory conditions between reported earnings and cash flows that do not reflect actual financial conditions raise suspicion. This alleged earning management practice triggered action from the Financial Services Authority (OJK) to conduct further investigations. This shows that even though the company appears to have achieved impressive financial results in the short term, the financial statements presented can be misleading if there is manipulation of the numbers in order to create a better picture of the company's financial performance. The case of PT. Waskita Karya is clear evidence that the practice of earning management is still happening in the Indonesian business world. This practice not only harms the company in the long run, but also undermines public and investor confidence in the transparency and integrity of the company's financial statements. This case is proof that there is still earning management carried out. Some of the factors that can affect earning management in this study are investment opportunity set, Financial Distress and information asymmetry.

According to Gaver (1993) Investment Opportunity Set is an entity that has planned or made profitable expense management and investment choices in the future so as to increase the value for the company. IOS is an important factor for companies because it allows for more effective investment decision-making, based on the combination of assets owned by the company and potential investment opportunities that can be obtained in the future (Jaya & Wirama, 2017). The practice of earning management is carried out by increasing the company's profits so that it can show IOS The company is at a high level so that it reflects the company's growth well in the future and can benefit investors (Irawan & Apriwenni, 2021).

Other factors that affect earning management are Financial Distress which is a situation where a company or individual is experiencing serious financial difficulties (Squirt et al., 2021). A company's poor financial condition can encourage management to manipulate financial statements to increase reported profit figures (Irawan & Apriwenni, 2021). Earning management can also be affected by the emergence of information asymmetry. Information asymmetry is a situation in which only one party has more complete control of information than the other (Isnawati et al., 2023). Information asymmetry can motivate managers to convey inaccurate information, especially if the information is related to the assessment of managerial activities (Devanka et al., 2022).

Some studies have examined the relationship between Investment Opportunity Set (IOS), Financial Distress, Information Asymmetry towards Earning management provide relevant insights in understanding the influence of these factors on earning management practices in the company. Research conducted (Widiasari et al., 2023) and (Maharani, 2024) states that Investment Opportunity Set has a negative effect on earning management. This is inversely proportional to the research (Irawan & Apriwenni, 2021) which mentions the existence of a positive relationship between Investment Opportunity Set and earning management. Research on relationships Financial Distress to earning management that has been researched (Sugito & Wijoyo, 2024), (Mulyati & Kurnia, 2023) and (Dzulfikar & Firmansyah, 2022) indicates a positive influence between these variables. In addition, the research (D. M. Sari et al., 2022) and (Megawati & Sulfitri, 2023) revealed that information asymmetry has a positive effect on earning management.

With this research on earning management, it can provide useful information for companies in decision-making and strategic planning, as well as help investors in assessing the company's financial performance.

The novelty of this study lies in variables that have not been widely studied, namely investment opportunity set (IOS), financial distress, and information asymmetry, as well as their relationship with earning management as dependent variables. These variables have never been tested simultaneously by researchers before so this study makes a new contribution to understanding the factors influencing earning management practices in the sector. Based on the above background, the problem in this study can be whether the influence of investment opportunity set, financial distress, and information asymmetry, on earning management.

2. Theoretical Background

2.1 Agency Theory

Agency relationships are the foundation in analyzing the relationship between managers and shareholders (Devanka) et al., 2022). Agency theory explains the relationship formed through contracts between parties in the company, namely between the owner and the agent who play the role of the party directly involved in the management of the company (Jensen & Meckling, 1976). This theory arises as a result of a conflict of interest between shareholders (main) and corporate management (agent). A company's manager can have different goals that could potentially conflict with the company's primary goal, which is to maximize the well-being of shareholders (Aini et al., 2024). Such differences will create a conflict of interest between shareholders and managers. The concept of agency also explains problems related to earning management practices that arise due to the misalignment between the interests of the principal and the agent (Irawan & Apriwenni, 2021).

2.2 Earning management

Earning management refers to the steps taken by the company's managers in changing financial statements with the aim of providing an inaccurate picture of the company's performance and financial position to stakeholders (Aprillian et al., 2020). Earning management actions are carried out by increasing or decreasing reported profits according to the interests or objectives desired by the manager (Masri & Khairunnisa, 2024).

2.3 Investment Opportunity Set

Investment opportunity set (IOS) is a set of investment opportunities that include a combination of future investment alternatives and an evaluation of the assets owned (Silpiani et al., 2023). The combination is between the assets owned (assets in place) and future investment options with a positive net present value (Kartolo & Sugiyanto, 2021). IOS reflects investment opportunities that may affect the future development of the company's assets and will have an impact on the sustainability of the company's asset growth thereby enabling the company to make investment decisions based on the combination of assets it currently owns and available investment opportunities in the future (Jaya & Wirama, 2017). The high value of IOS is expected to reflect the company's significant growth in the future (Irawan & Apriwenni, 2021).

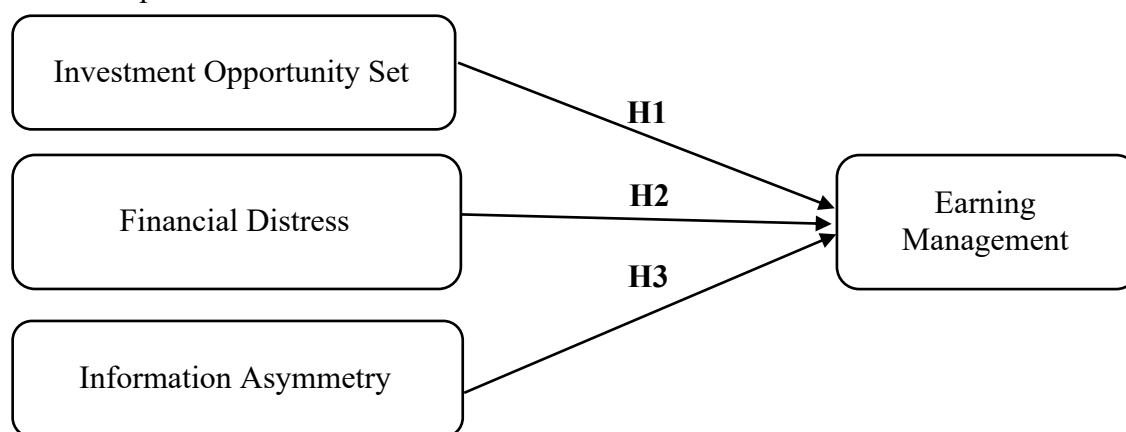
2.4 Financial Distress

Financial distress namely the state of the company or individual who is faced with significant financial difficulties (Christian) et al., 2021). Main causes of occurrence Financial Distress is a consistently poor decline in the company's performance so that it has an impact on poor financial condition (Ghazali et al., 2015; Irawan & Apriwenni, 2021). Companies with financial conditions with inadequate cash flow will be at risk of bankruptcy (Kenneth et al., 2018).

2.5 Information Asymmetry

Information asymmetry is a concept that recognizes the existence of an information imbalance where only one party has more complete information than the other (Scott, 2015; Aini et al., 2024). Information asymmetry arises when the company's managers often have more complete information compared to external parties, such as investors (Yulianto & Aryati, 2022).

2.6 Conceptual Framework



2.7 Hypothesis

2.7.1 The Effect of Investment Opportunity Set on Earning management

Investment opportunity set of a company reflects the future prospects of the company's growth (Irawan & Apriwenni, 2021). High corporate growth can indicate that the company's IOS value is high (Masri & Khairunnisa, 2024). Companies with large investment opportunities will reduce the motivation of managers to carry out earning management actions (Widiasari) et al., 2023). The relationship is with the agency theory that explains that conflicts of interest between managers and shareholders can be mitigated by the existence of profitable investment opportunities, thereby reducing the tendency of managers to do earning management for personal interests. Research that has been done (Widiasari) et al., 2023) and (Maharani, 2024) states that Investment Opportunity Set has a significant negative effect on earning management.

H1: Investment Opportunity Set has a negative effect on Earning management

2.7.2 The Effect of Financial Distress on Earning management

Financial difficulties are situations that occur when a company faces a financial crisis (A. P. Sari & Machdar, 2023). A decline in the company's poor performance is the main cause of financial distress (Ghazali et al., 2015; Irawan & Apriwenni, 2021). Companies that experience financial distress show that the management of the company by the

manager is not running optimally, so the manager will use accounting procedures and methods to try to increase profits in the condition of financial difficulties (Irawan & Apriwenni, 2021). In the perspective of agency theory, the condition of the company that is experiencing financial distress makes managers tend to do earning management to improve the perception of investors and creditors at the time of the company due to a conflict of interest between the manager as an agent and the shareholder as the principal which encourages the manager to present more profitable financial statements. Research results that show a positive effect Financial Distress to earning management carried out by (Sugito & Wijoyo, 2024), (Mulyati & Kurnia, 2023) and (Dzulfikar & Firmansyah, 2022).

H2: Financial Distress has a positive effect on Earning management

2.7.3 The Effect of Information Asymmetry on Earning management

Information asymmetry arises when managers know more information compared to shareholders or other stakeholders in the company (Yulianto & Aryati, 2022). This misalignment of information can affect the earning management practices carried out by managers (Rini & Amelia, 2022). Managers can manipulate numbers in financial statements by performing earning management (Renaldo et al., 2022; Aini et al., 2024). In the context of theory, the agency argues that the existence of differences in information will create opportunities for managers to manage financial statements for their personal interests. When managers have more information about the company's condition, they tend to do earning management to hide bad information or manipulate financial results, thereby reducing transparency and increasing uncertainty for shareholders. Research results (Sari et al., 2022) and (Megawati & Sulfitri, 2023) stated that information asymmetry has a positive effect on earning management.

H3: Information Asymmetry has a positive effect on Earning management

3. Methods

3.1 Research Design

This study employs a quantitative approach with a causal-explanatory research design. The objective is to empirically examine the influence of the Investment Opportunity Set (IOS), Financial Distress, and Information Asymmetry on Earnings Management. The study utilizes secondary panel data from company financial reports and market data, analyzed using multiple linear regression.

3.2 Population and Sample

The research population comprises all companies in the building construction sub-sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 observation period. The sample was selected using a purposive sampling method based on the following criteria:

- 1) Companies must be classified in the building construction sub-sector and consistently listed on the IDX from 2021 to 2023.
- 2) Companies must have published complete annual financial reports for the fiscal years 2021, 2022, and 2023.
- 3) Companies must have the complete stock data necessary to calculate the bid-ask spread (for Information Asymmetry).

From a total population of 29 building construction companies, 10 companies met all the established criteria. With data collected over three years, this yielded a total of 30 firm-year observations for analysis. The sampled companies is presented in Table 1.

Table 1. Sampled Companies

No.	Stock Code	Company Name
1.	JKON	Jaya Construction Manggala Prata
2.	SSIA	Surya Semesta Internusa Tbk.
3.	WSKT	Waskita Karya (Persero) Tbk.
4.	TOPS	Totalindo Eka Persada Tbk.
5.	MTPS	Meta Epsi Tbk.
6.	PTPW	Pratama Widya Tbk.
7.	SON	Lancartama Sejati Tbk.
8.	RONY	Aesler International Group Tbk.
9.	FIMP	Fimperkasa Utama Tbk.
10.	SMKM	Sumber Mas Konstruksi Tbk.

Source: Indonesia Stock Exchange (www.idx.co.id)

3.3 Variable Measurement and Data Collection

All data in this study are secondary, sourced from the official websites of the Indonesia Stock Exchange (www.idx.co.id) and the respective companies' annual reports. The operational definitions and measurements of the variables are detailed in Table 2.

Table 2. Operationalization of Variables

Variable	Symbol	Measurement	Scale	Source
Earnings Management	Y	Measured by Discretionary Accruals (DAC) using the Modified Jones Model: $DAC_{i,t} = TAC_{i,t} / A_{i,t-1} - NDA_{i,t}$ Where TAC is Total Accruals, A is total assets, and NDA is Non-Discretionary Accruals.	Ratio	(Dechow et al., 1995)
Investment Opportunity Set (IOS)	X1	Measured by the ratio of Market Value to Book Value of Assets (MVBVA): $MVBVA = [Total\ Assets - Total\ Equity + (Outstanding\ Shares \times Closing\ Price)] / Total\ Assets$	Ratio	(Masri & Khairunnisa, 2024)
Financial Distress	X2	Measured using the Altman Z-Score model: $Z = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5$ Where X1=Working Capital/Total Assets, X2=Retained Earnings/Total Assets, X3=EBIT/Total Assets, X4=Market Value of Equity/Book Value of Liabilities, X5=Sales/Total Assets. A lower	Ratio	(Christian et al., 2021)

Variable	Symbol	Measurement	Scale	Source
		Z-Score indicates a higher probability of financial distress.		
Information Asymmetry	X3	Measured by the relative bid-ask spread: $SPREAD_{it} = [(Ask_{i,t} - Bid_{i,t}) / ((Ask_{i,t} + Bid_{i,t}) / 2)] \times 100$ A higher spread indicates a higher level of information asymmetry.	Ratio	(Venkatesh & Chiang, 1986)

3.4 Data Analysis Technique

Data analysis was performed using SPSS software and involved the following steps:

- 1) Descriptive Statistics: To summarize the characteristics of the variables, including mean, standard deviation, minimum, and maximum values.
- 2) Classical Assumption Tests: To ensure the validity of the regression model. The tests conducted include the Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test.
- 3) Multiple Linear Regression Analysis: To test the hypotheses regarding the influence of the independent variables on the dependent variable. The regression model for this study is specified as follows:

$$DAC = \alpha + \beta_1 IOS + \beta_2 FD + \beta_3 AI + e$$

Where:

DAC = Discretionary Accruals (proxy for Earnings Management)

α = Constant

$\beta_1 - \beta_3$ = Regression Coefficients

IOS = Investment Opportunity Set

FD = Financial Distress

AI = Information Asymmetry

e = Error Term

4. Results and Discussion

4.1 Descriptive Statistics

Descriptive statistics provide an overview of the characteristics of the research variables, including the mean, minimum, maximum, and standard deviation values. The results, summarized in Table 3, indicate that the mean value for each variable is smaller than its respective standard deviation. This suggests that the data exhibits a high degree of variation or heterogeneity across the sampled companies.

Table 3. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Investment Opportunity Set (IOS)	30	0.34	124.12	7.6293	23.73910
Financial Distress	30	-4.38	156.06	13.8666	33.79968
Information Asymmetry	30	0.00	1.70	0.5763	0.54426
Earning Management	30	-0.79	0.65	-0.0619	0.27729

Source: Processed data, 2024

The analysis of 30 firm-year observations reveals significant dispersion in the data. For instance, Earning Management (proxied by discretionary accruals) ranges from -0.79

to 0.65. The Investment Opportunity Set (IOS), measured by MVBVA, shows an even wider range, from 0.34 to 124.12, with PT. Aesler International Group Tbk. in 2022 representing the maximum value. The Financial Distress variable (Altman Z-Score) also displays extreme values, from -4.38 to 156.06. Information Asymmetry, measured by the relative bid-ask spread, varies from 0.00% to 1.70%.

4.2 Classical Assumption Test Results

Prior to hypothesis testing, a series of classical assumption tests were conducted to validate the multiple linear regression model.

4.2.1 Normality Test

The normality test, assessed using the Kolmogorov-Smirnov test, determines whether the residuals of the regression model are normally distributed. As shown in Table 4, the Asymp. Sig. (2-tailed) value is 0.105, which is greater than the 0.05 significance level. This confirms that the residual data is normally distributed.

Table 4. Normality Test Results

	Unstandardized Residual
N	30
Test Statistic	.145
Asymp. Sig. (2-tailed)	.105

Source: Processed data, 2024

4.2.2 Multicollinearity Test

The multicollinearity test verifies whether high correlations exist between the independent variables. The results in Table 5 show that all Tolerance values are above 0.1 and all Variance Inflation Factor (VIF) values are below 10. This confirms that there is no multicollinearity problem in the regression model.

Table 5. Multicollinearity Test Results

Independent Variable	Tolerance	VIF
Investment Opportunity Set (IOS)	0.173	5.791
Financial Distress	0.171	5.851
Information Asymmetry	0.942	1.062

Source: Processed data, 2024

4.2.3 Autocorrelation Test

The autocorrelation test was conducted using the Durbin-Watson (DW) statistic. The calculated DW value is 2.292. As this value lies between the upper limit ($dU = 1.650$) and ($4 - dU = 2.350$), we conclude that there is no autocorrelation in the model.

4.2.4 Heteroscedasticity Test

The heteroscedasticity test identifies any inequality in the variance of the regression residuals. The test results in Table 6 indicate that the significance values for all independent variables are greater than 0.05. Therefore, the model is free from heteroscedasticity.

Table 6. Heteroscedasticity Test Results

Independent Variable	Sig.
Investment Opportunity Set (IOS)	0.733
Financial Distress	0.545
Information Asymmetry	0.091

Source: Processed data, 2024

4.3 Multiple Linear Regression and Hypothesis Testing

With all classical assumptions met, multiple linear regression analysis was performed to test the research hypotheses. The results are presented in Table 7.

Table 7. Multiple Linear Regression Results

Variable	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-statistic	Sig.	Conclusion
(Constant)	-0.112	0.029		-3.831	0.001	
IOS	-0.011	0.002	-1.407	-5.876	0.000	H1 Accepted
Financial Distress	0.005	0.001	0.841	3.492	0.002	H2 Accepted
Information Asymmetry	0.122	0.035	0.361	3.526	0.002	H3 Accepted

Dependent Variable: Earning Management

Processed data, 2024

The regression model derived from the analysis is as follows:

$$\text{Earning Management} = -0.112 - 0.011(\text{IOS}) + 0.005(\text{Financial Distress}) + 0.122(\text{Information Asymmetry}) + e$$

To assess the model's goodness-of-fit, the coefficient of determination (Adjusted R²) and the F-test were examined, as shown in Table 8.

Table 8. Model Goodness-of-Fit Test

R	R Square	Adjusted R Square	F-statistic	Sig.
0.862	0.743	0.713	25.004	0.000

Source: Processed data, 2024

The Adjusted R Square value of 0.713 indicates that the three independent variables (IOS, Financial Distress, and Information Asymmetry) collectively explain 71.3% of the variation in Earning Management. The remaining 28.7% is influenced by other factors not included in this model. Furthermore, the F-statistic of 25.004 with a significance value of 0.000 ($p < 0.05$) confirms that the regression model is feasible and statistically significant.

4.4 Discussion of Hypotheses

4.4.1 The Effect of Investment Opportunity Set on Earning Management

The results demonstrate that the Investment Opportunity Set (IOS) has a significant negative effect on Earning Management ($\beta = -0.011$, $p = 0.000$). This inverse relationship implies that companies with greater growth opportunities (high IOS) tend to engage in less earnings manipulation. This finding can be explained by the fact that firms with substantial viable investment prospects are more likely to prioritize long-term value creation and transparent reporting to maintain investor confidence and secure financing for their growth projects. Engaging in earnings management could undermine market trust and increase the cost of capital, which is counterproductive to their growth objectives. This finding is consistent with prior studies by Widiyari et al. (2023) and Maharani (2024), who also reported a significant negative influence of IOS on earning management.

4.4.2 The Effect of Financial Distress on Earning Management

The analysis reveals that Financial Distress has a significant positive effect on Earning Management ($\beta = 0.005$, $p = 0.002$). This indicates that companies experiencing financial

difficulties are more likely to manipulate their earnings. From an agency theory perspective, managers in financially distressed firms face intense pressure from stakeholders, such as creditors and shareholders, to meet financial targets and avoid breaching debt covenants. To mask the company's true financial condition and alleviate this pressure, managers may resort to earnings management as a short-term coping mechanism. This result aligns with the findings of Sugito & Wijoyo (2024), Mulyati & Kurnia (2023), and Dzulfikar & Firmansyah (2022).

4.4.3 The Effect of Information Asymmetry on Earning Management

The results confirm that Information Asymmetry has a significant positive effect on Earning Management ($\beta = 0.122$, $p = 0.002$). This suggests that an environment where managers possess more information than external stakeholders creates an opportunity for earnings manipulation. Agency theory posits that this information imbalance exacerbates agency problems. Managers may exploit their informational advantage to present a biased view of the company's performance, often to serve their own interests (e.g., securing bonuses or preserving their positions) at the expense of shareholders who lack complete information. This finding is supported by research from Sari et al. (2022) and Megawati & Sulfitri (2023).

5. Conclusion

Based on the results of research and data interpretation, Investment Opportunity Set negative effects on Earning management, which suggests that companies with more investment opportunities tend to reduce their earning management practices. On the other hand, financial distress and information asymmetry had a significant positive effect on earning management in construction companies listed on the IDX in the 2021-2023 period. Overall, the study reveals that financial distress and information asymmetry have a significant influence on encouraging earning management practices, while more investment in companies can actually reduce these tendencies, by showing the importance of investment opportunities as a barrier to manipulation of financial statements.

Based on these findings, companies are advised to always carry out strict supervision of the performance of managers so that they act in accordance with the interests of the principal and the company's goals. Companies need to ensure that earning management does not occur excessively which can harm the credibility of the financial statements. For investors and creditors, it is advisable not only to focus on profit information in financial statements but also to consider factors that may affect the quality of financial statements such as investment opportunity set, financial distress and information asymmetry considering that reported profits do not necessarily reflect actual financial conditions.

The limitations of this study include a limited scope to the building construction sub-sector and only involve 30 research samples. In addition, the independent variables tested in the determination coefficient were only able to explain the dependent variables, namely earning management by 71.3% and the remaining 28.7% were likely to be influenced by other variables that were not studied in this study. Therefore, further research is expected to expand the research object to include other sectors besides building construction, extend the research observation period, and add or select other independent variables. This is expected to increase the research sample, resulting in more representative findings that can be generalized to a wider population

References

- Agustia, D. (2013). The Influence of Good Corporate Governance, Free Cash Flow, and Leverage Factors on Earning management. *Journal of Accounting and Finance*, 15(1), 27–42. <https://doi.org/10.9744/jak.15.1.27-42>
- Aini, I. N., Harahap, R. Y., & Fajri, Z. R. (2024). The Effect of Information Asymmetry on Earnings Management With Moderation Variables of Good Corporate Governance. *Research In Accounting Journal*, 4(1), 1–9.
- Aulia, W. R., & Haninun. (2023). The Influence of Tax Planning, Company Size, CSR, on Earning management. *Synodynamics Journal | Volume*, 15(2), 1–7. <https://jurnal.ubd.ac.id/index.php/akunto>
- Binekasri, R. (2023). Regarding the allegation that WSKT's financial statements were polished, the OJK opened its voice. *CNBC Indonesia*.
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). *Detecting Earnings Management*.
- Devanka, D., Endiana, I. D. M., & Kumalasari, P. D. (2022). Analysis of Factors Affecting Earning management in Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2018-2020 Period. *Journal of Chemistry*, 4(1), 85–96.
- Dzulfikar, R. A., & Firmansyah, A. (2022). Free Cash Flow, Financial Distress, and Earnings Management: The Moderating Role of Independent Commissioner. *Journal of REKSA: Financial Engineering, Sharia and Audit*, 9(2), 74–90. <https://doi.org/10.12928/jreksa.v9i2.7333>
- Felicya, C., & Sutrisno, P. (2020). The influence of company characteristics, ownership structure and audit quality on earning management. *Journal of Business and Accounting*, 22(1), 129–138. <https://doi.org/10.34208/jba.v22i1.678>
- Ghazali, A. W., Shafie, N. A., & Sanusi, Z. M. (2015). Earnings Management: An Analysis of Opportunistic Behaviour, Monitoring Mechanism and Financial Distress. *Proceedings Economics and Finance*, 28(April), 190–201. [https://doi.org/10.1016/s2212-5671\(15\)01100-4](https://doi.org/10.1016/s2212-5671(15)01100-4)
- Irawan, S., & Apriwenni, P. (2021). The Effect of Free Cash Flow, Financial Distress, and Investment Opportunity Set on Earning management. *Journal of Business Accounting*, 14(1), 24–37. <https://doi.org/10.30813/jab.v14i1.2458>
- Isnawati, M., I Gusti Ketut Agung Ulupui, Mardi, & Yunika Murdayanti. (2023). The Effect of Information Asymmetry, Company Size and Corporate Governance on Earning management in the Consumption Sector (IDX) in 2019-2022. *Journal of Accounting, Taxation and Auditing*, 4(2), 382–400. <https://doi.org/10.21009/japa.0402.05>
- Jaya, K. A. A., & Wirama, D. G. (2017). The Effect of Investment Opportunity Set, Liquidity, and Company Size on Profit Quality. *E-Journal of Accounting*, Udayana University, 11(1), 1–27.
- Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 283–303. <https://doi.org/10.1017/CBO9780511817410.023>
- Kartolo, R., & Sugiyanto. (2021). The Effect of Free Cash Flow and Investment Opportunity Set on Dividend Policy with Debt Policy as a Mediation Variable. *Jumka Journal*, 1(1), 49–58.
- Kenamon, M., Winawung, Y. D., & Haninun. (2018). Bankruptcy Prediction with the Altman Z-Score Model in Pharmaceutical Companies Listed on the Indonesia Stock Exchange for the 2012-2016 Period. *Journal of Accounting & Finance*, 9(1).

- Kristyaningsih, P., Hariyani, D. S., & Sudrajat, M. A. (2021). Financial Distress Towards Earning management. *Sci.* 3(03), 151–156.
- Maharani, P. P. (2024). The Effect of the Good Corporate Governance and Investment Opportunity Set Mechanism on the Earning management of Financial Sector Companies on the Indonesia Stock Exchange for the 2020-2022 Period.
- Masri, S. I., & Khairunnisa. (2024). Earning management: Business Strategy, Investment Opportunity Set, Managerial Entrenchment and Company Size. *Sci.*, 627–639.
- Megawati, Y., & Sulfitri, V. (2023). The Influence of Information Asymmetry, Financial Distress, Education Level of the Board of Directors, and Gender Diversity of the Board of Directors on Earning management. *Postgraduate Management Journal*, 3(1), 61–72. <https://doi.org/10.36352/pmj.v3i1.537>
- Mulyati, Y., & Kurnia, B. (2023). The Effect of Free Cash Flow and Financial Distress on Earning management in Infrastructure, Utilities, and Transportation Companies Listed on the Indonesia Stock Exchange. *Owner*, 7(2), 1596–1611. <https://doi.org/10.33395/owner.v7i2.1395>
- Rini, P., & Amelia, S. (2022). The Effect of Information Asymmetry, Company Size, and Leverage on Earning management. *Indonesian Journal of Accounting and Business*, 3(1), 12–23.
- Sari, A. P., & Machdar, N. M. (2023). The Effect of Investment Opportunity Set, Operating Cash Flow, and Solvency on Financial Distress Moderated by Managerial Ownership. *Journal of Forestry: Research in Business Management and Accounting*, 2(1), 111–123. <https://doi.org/10.61132/rimba.v2i1.545>
- Sari, D. M., Ananda, R. F., & Rahmadhani, S. N. (2022). The Effect of Information Asymmetry and Managerial Ownership on Earning management in Mining Companies Listed on the Indonesia Stock Exchange for the 2015-2019 Period. *Scientific Journal of Financial and Business Accounting (JIKABI)*, 1(1), 26–39. <https://doi.org/10.31289/jbi.v1i1.1058>
- Sari, T. W., & Wahidahwati. (2016). The Effect of Audit Quality on Earning management in Manufacturing Operations. *Journal of Accounting Science and Research*, 5(12), 1–21. <http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/482>
- Silpiani, E., Nurfauziah, F. L., & Azzahra, S. (2023). The Effect of Information Asymmetry, Company Growth and Investment Opportunity Set (IOS) on Earning management (Empirical Study on Banking Companies in Book Category 4 Listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 Period). *Journal of Sharia Accounting, Auditing & Finance (JAKES)*, 2(2), 12–24.
- Siregar, R. (2016). The Influence of Company Characteristics on Tax Avoidance in Manufacturing Companies on the IDX. *Journal of Accounting Science & Research*, 5(2), 2460–0585.
- Sugito, J., & Wijoyo, D. S. (2024). The Influence of Financial Difficulties, Tax Motivation, and Company Characteristics on Earning management. *TSM Accounting E-Journal*, 3(4), 521–532. <https://doi.org/10.34208/ejatsm.v3i4.2413>
- Venkatesh, P. C., & Chiang, R. (1986). Information Asymmetry and the Dealer's Bid-Ask Spread: A Case Study of Earnings and Dividend Announcements. *The Journal of Finance*, 41(5), 1089–1102. <https://doi.org/10.1111/j.1540-6261.1986.tb02532.x>
- Widiasari, N. M. D., Lestari, N. L. P. R. W., & Indriyani, N. M. V. (2023). The Influence of Tax Planning, Investment Opportunity Set, Profitability and Free Cash Flow on Earning management. *Warmadewa Journal of Accounting Research*, 4(1), 7–12. <https://doi.org/10.22225/jraw.4.1.7614.7-12>

Yulianto, A., & Aryati, T. (2022). The Effect of Leverage, Information Asymmetry and Profit Resistance on Earning management. 2(2), 1129–1142.