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# The Influence of Audit Quality, Audit Committee, CEO Characteristics, and Profitability on Earnings Management in Infrastructure Companies Listed on the Indonesia Stock Exchange in 2021-2025

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***Keywords***: *Audit Committee; Audit Quality; CEO Characteristics; Earnings Management; Profitability*

***Abstract***

*Purpose: Earnings management remains a serious problem in Indonesia's infrastructure sector, as shown by alleged financial statement manipulation cases at PT Waskita Karya, PT Wijaya Karya, and PT Nusantara Infrastructure during 2021-2025. This study aims to examine, both simultaneously and partially, the effect of audit quality, audit committee, CEO characteristics, and profitability on earnings management in infrastructure companies listed on the Indonesia Stock Exchange (IDX) in 2021-2025. Methods: This study uses a quantitative approach with panel data regression. From a population of 70 infrastructure companies, 37 companies were selected through purposive sampling; after removing three outlier companies, the final sample is 34 companies with 170 balanced panel observations. Earnings management is measured by discretionary accruals using the Modified Jones Model; audit quality by a Big Four dummy; the audit committee by its number of members; CEO characteristics by CEO tenure; and profitability by Return on Assets. Data were analyzed with EViews 12 through descriptive statistics, panel model selection, and hypothesis testing. Results: The model is significant, meaning the four variables simultaneously affect earnings management, with an adjusted R-squared of 5.33%. Partially, audit quality has a negative and significant effect, the audit committee has a positive and significant effect , contrary to the hypothesized direction; while CEO characteristics and profitability have no significant effect. Implications: Big Four auditors are an effective external monitoring mechanism, whereas adding audit committee members without ensuring competence and independence weakens oversight. Regulators should therefore emphasize the substantive effectiveness of audit committees rather than formal compliance, and investors can use auditor reputation as a signal of financial reporting quality.*

## INTRODUCTION

Earnings management has long been one of the most extensively studied topics in financial accounting and corporate governance (Valaskova et al., 2021). In simple terms, earnings management can be understood as an effort by management to influence the figures in financial statements so that they do not reflect the company's actual condition. Kristanti et al. (2024) note that earnings management has attracted serious attention following accounting scandals in various countries, because managers exercise discretion in financial reporting so that reported earnings no longer fully reflect the firm's economic condition. A more precise definition is offered by Healy & Wahlen (1999), namely that earnings management occurs when managers use discretion in financial reporting to produce reports that deviate from the company's economic reality. This behavior can be explained through the agency theory proposed by Jensen & Meckling (1976), in which the separation of ownership and management creates information asymmetry that opens opportunities for managers to act opportunistically, including manipulating accounting figures.

This condition is exacerbated by the flexibility of accrual-based accounting standards, which grant management room to make estimates according to policies that benefit certain parties.

In Indonesia, financial reporting is governed by two complementary layers of rules. In practice, however, both layers still leave room for earnings management. The first layer is accounting standards: Indonesian Financial Accounting Standards, which have fully adopted IFRS since 2012, use a principles-based approach that grants management broad discretion in determining accounting estimates. The second layer is governance regulation from the Financial Services Authority (OJK), including Regulation No. 55/POJK.04/2015 on Audit Committees, Regulation No. 33/POJK.04/2014 on Boards of Commissioners, and Regulation No. 57/POJK.04/2017 requiring a minimum of 30% independent commissioners, complemented by Law No. 40 of 2007 mandating Good Corporate Governance principles. Even so, cases of financial statement manipulation continue to occur in many sectors, including infrastructure. This shows that the existing standards and regulations have not been fully effective in closing the earnings management gap.

Earnings management in Indonesia's infrastructure sector is not only a theoretical concern; several real cases occurred during the study period. The first case involves PT Waskita Karya (Persero) Tbk, where the Financial and Development Supervisory Agency (BPKP) indicated alleged financial statement manipulation because the company reported significant profits in 2021 despite negative cash flows, followed by fictitious project issues and document falsification that surfaced in late 2022. The second case involves PT Wijaya Karya (Persero) Tbk, reported as profitable for years even though its operating cash flow was negative at IDR 3.74 trillion in 2021 and IDR 2.88 trillion in 2022. The third case involves PT Nusantara Infrastructure Tbk, whose earlier profit increases were driven by non-operational equity adjustments rather than core operating revenue. Together, these three cases provide concrete evidence that existing monitoring mechanisms in the infrastructure sector, including audit quality, audit committees, and other governance mechanisms, have not been able to optimally prevent earnings management practices.

Previous research on the determinants of earnings management still shows inconsistent results. On audit quality, Widjaja & Karjono (2022) found a negative effect, while Farida & Sugesti (2023) and Almarayeh et al. (2020) found no significant effect of auditor size on discretionary accruals in the Indonesian mining sector and the Amman Stock Exchange, respectively. On the audit committee, Ratiningsih & Nugrahanti (2023), Widjaja & Karjono (2022), and Ngo & Le (2021) found a negative effect, whereas Susanto & Yangrico (2020) found the opposite because oversized committees create communication inefficiencies, and Pratomo & Sudibyo (2023) found that meeting activity fulfilling only the POJK minimum is viewed by investors as routine compliance. On CEO characteristics, Altarawneh et al. (2022) found that longer CEO tenure significantly reduces discretionary accruals in Malaysia, consistent with Marjono & Wijaya (2022). On profitability, Hardiyanti et al. (2022) found a negative effect, while Yolanda & Mita (2025) found a positive direction on real earnings management.

These mixed findings show that the relationship between the four variables and earnings management depends heavily on the industry and institutional context. Meanwhile, studies that focus specifically on Indonesia's capital-intensive infrastructure sector are still limited. Based on this gap, this study aims to examine the effect of audit quality, audit committee, CEO characteristics, and profitability on earnings management, both simultaneously and partially, in infrastructure companies listed on the IDX in 2021-2025. The novelty of this study lies in the use of the most recent observation period (2021-2025), which captures actual cases in the infrastructure sector, and the combination of governance variables with the CEO's personal characteristics and the firm's financial condition in a single model. Accordingly, the hypotheses are: (H1) the four variables simultaneously affect earnings management; (H2) audit quality has a negative effect; (H3) the audit committee has a negative effect; (H4) CEO characteristics have a negative effect; and (H5) profitability has a negative effect on earnings management.

## METHODS

This study is descriptive-causal research with a quantitative approach. The unit of analysis is infrastructure sector companies listed on the Indonesia Stock Exchange (IDX) based on the IDX-IC classification for the 2021-2025 period, using a panel data structure that combines cross-sectional and time series data to capture dynamics both across firms and over time.

The population is all infrastructure sector companies listed on the IDX up to 2025, totaling 70 companies. The sample was selected through purposive sampling with the criteria: (1) companies consistently listed and active throughout 2021-2025; (2) publishing complete annual reports and audited financial statements; (3) financial statements presented in Indonesian Rupiah; and (4) having complete data for all research variables. These criteria yielded 37 companies; after excluding three companies identified as extreme outliers, the final sample consists of 34 companies with 170 balanced panel observations. The data are secondary data obtained from the official IDX website (www.idx.co.id) and each company's official website through documentation study.

The dependent variable, earnings management, is measured using discretionary accruals based on the Modified Jones Model (Dechow et al., 1995), computed as total accruals ($TAC_{it} = NI_{it} - CFO_{it}$), non-discretionary accruals estimated from the change in revenue net of receivables and property, plant and equipment, and discretionary accruals as the residual. The independent variables are: audit quality (X1), proxied by a Big Four audit firm dummy (1 = Big Four, 0 = non-Big Four); audit committee (X2), measured by the number of audit committee members; CEO characteristics (X3), measured by CEO tenure (the number of years serving as CEO up to year t); and profitability (X4), measured by Return on Assets (net income divided by total assets).

Data are processed using Microsoft Excel for initial tabulation and EViews version 12 for the panel data regression. The analysis covers descriptive statistics, panel model selection through the Chow Test, Hausman Test, and Lagrange Multiplier Test, classical assumption tests, and hypothesis testing through the F-test (simultaneous), t-test (partial), and coefficient of determination. The regression equation estimated is:

$$EM_{it} = \alpha + \beta_1 AQ_{it} + \beta_2 AC_{it} + \beta_3 CEO_{it} + \beta_4 PROF_{it} + \varepsilon_{it}$$

Where $EM_{it}$ is earnings management (discretionary accruals); $AQ_{it}$ is audit quality (Big Four dummy); $AC_{it}$ is the number of audit committee members; $CEO_{it}$ is CEO tenure; $PROF_{it}$ is profitability (ROA); $\alpha$ is a constant; $\beta_1$-$\beta_4$ are regression coefficients; and $\varepsilon_{it}$ is the error term of company i in year t.

## RESULTS AND DISCUSSION

### *Results*

Based on the panel model selection procedure, the hypotheses are tested using the panel least squares approach on 170 balanced panel observations from 34 infrastructure companies over 2021-2025. The panel data regression results are presented in Table 1.

**Table 1. Panel Data Regression Results**

Dependent Variable: Y
Method: Panel Least Squares
Date: 07/04/26 Time: 11:19
Sample: 2021 2025
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -0.509688 | 0.567743 | -0.897744 | 0.3706 |
| X1 | -0.681756 | 0.235602 | -2.893677 | 0.0043 |
| X2 | 0.341943 | 0.159594 | 2.142574 | 0.0336 |
| X3 | 0.020523 | 0.044767 | 0.458455 | 0.6472 |
| X4 | -1.220457 | 0.712956 | -1.711826 | 0.0888 |

| | | | |
|---|---|---|---|
| R-squared | 0.075741 | Mean dependent var | 0.408695 |
| Adjusted R-squared | 0.053335 | S.D. dependent var | 1.311346 |
| S.E. of regression | 1.275897 | Akaike info criterion | 3.354146 |
| Sum squared resid | 268.6056 | Schwarz criterion | 3.446375 |
| Log likelihood | -280.1024 | Hannan-Quinn criter. | 3.391572 |
| F-statistic | 3.380351 | Durbin-Watson stat | 0.410046 |
| Prob(F-statistic) | 0.010920 | | |

*Source: EViews 12 output, processed by the authors (2026)*

Based on Table 1, the regression equation is: EM = -0.509688 - 0.681756AQ + 0.341943AC + 0.020523CEO - 1.220457PROF + ε. Each coefficient can be interpreted as follows. The constant of -0.509688 means that if all independent variables are zero, the level of discretionary accruals is -0.509688. The audit quality coefficient of -0.681756 means that companies audited by Big Four firms have discretionary accruals 0.681756 lower than companies audited by non-Big Four firms, holding other variables constant. The audit committee coefficient of 0.341943 means that each additional audit committee member increases discretionary accruals by 0.341943. The CEO characteristics coefficient of 0.020523 and the profitability coefficient of -1.220457 show the direction of each relationship, although both are not statistically significant. The F-test yields an F-statistic of 3.380351 with a probability of 0.010920 ($p < 0.05$). This means the model is feasible and audit quality, audit committee, CEO characteristics, and profitability simultaneously have a significant effect on earnings management, so H1 is accepted. The adjusted R-squared of 0.053335 shows that the four variables explain 5.33% of the variation in earnings management, while the remaining 94.67% is explained by other variables outside the model, such as leverage, ownership structure, and firm size.

The t-test results answer each partial hypothesis. First, audit quality has a t-statistic of -2.893677 with a probability of 0.0043 ($p < 0.05$), indicating a negative and significant effect on earnings management, so H2 is accepted. This means the presence of a Big Four auditor genuinely restrains discretionary accrual practices. Second, the audit committee has a t-statistic of 2.142574 with a probability of 0.0336 ($p < 0.05$), a positive and significant effect; because this direction is contrary to the hypothesized negative direction, H3 is rejected. In other words, a larger audit committee is associated with higher, not lower, earnings management. Third, CEO characteristics have a t-statistic of 0.458455 with a probability of 0.6472 ($p > 0.05$), meaning CEO tenure has no significant effect, so H4 is rejected. Fourth, profitability has a t-statistic of -1.711826 with a probability of 0.0888 ($p > 0.05$); although the direction is negative as hypothesized, the effect is not significant at the 5% level, so H5 is rejected. In summary, of the four independent variables, only audit quality and the audit committee significantly affect earnings management in the infrastructure sector during the study period.

***Discussion***

***The Effect of Audit Quality on Earnings Management***

The finding that audit quality has a negative and significant effect on earnings management confirms agency theory's prediction that a high-quality external auditor is an effective monitoring mechanism that reduces information asymmetry between managers and shareholders (Jensen & Meckling, 1976). Companies audited by Big Four firms report lower discretionary accruals because these firms possess greater resources, more rigorous procedures, and stronger reputational incentives to detect and report irregularities (DeAngelo, 1981). This result is consistent with Widjaja & Karjono (2022) and extends its validity to the capital-intensive infrastructure sector, whose judgmental accrual accounts, such as contract revenue and project receivables, are substantially constrained by the presence of a reputable auditor. The result differs from Farida & Sugesti (2023) and Almarayeh et al. (2020), reinforcing that the strength of the audit quality effect is contingent on industry and institutional context.

***The Effect of the Audit Committee on Earnings Management***

Contrary to the hypothesis, the audit committee has a positive and significant effect on earnings management, meaning a larger number of members is associated with higher discretionary accruals. This does not support the monitoring argument but is consistent with Susanto & Yangrico (2020), who found that oversized committees create communication inefficiencies, diffusion of responsibility, and slower decision-making that weaken oversight. It also aligns with Pratomo & Sudibyo (2023), who argued that fulfilling the minimum audit committee requirements under Regulation No. 55/POJK.04/2015 may be formal rather than substantive; adding members without ensuring their competence, independence, and meeting intensity does not automatically strengthen the supervision of financial reporting. This interpretation is reinforced by Kristanti et al. (2024), who found that the intensity of board activity significantly moderates the effectiveness of internal governance mechanisms in restraining earnings management, implying that the substance of oversight activity matters more than the size of the monitoring body. The finding contrasts with Ratiningsih & Nugrahanti (2023) and Ngo & Le (2021), reinforcing that audit committee effectiveness is highly contingent on industry context.

***The Effect of CEO Characteristics on Earnings Management***

CEO characteristics, proxied by CEO tenure, have no significant effect on earnings management in infrastructure companies. This differs from Altarawneh et al. (2022), who documented a significant negative association in Malaysia, but aligns with the partial findings of Marjono & Wijaya (2022), who reported that late-tenure CEOs in Indonesia show no significant effect on accrual earnings management due to frequent non-routine CEO turnover. In the Indonesian infrastructure sector, dominated by state-owned enterprises whose chief executives are frequently replaced for reasons unrelated to performance cycles, CEO tenure may not adequately capture the incentive structure driving reporting behavior. Earnings management in this sector appears to be shaped more by corporate-level pressures, such as financing needs and government project targets, than by the CEO's personal tenure horizon.

***The Effect of Profitability on Earnings Management***

Profitability shows a negative but insignificant effect on earnings management at the 5% level. The negative direction is consistent with Hardiyanti et al. (2022), who argue that financially healthy companies face lower opportunistic pressure to embellish their statements. However, the insignificance indicates that the level of ROA is not a primary driver of accrual discretion in the infrastructure sector during 2021-2025; incentives to manage earnings appear to stem more from debt covenants, project financing requirements, and post-pandemic recovery pressures than from reported profitability, so that both high-profit and low-profit companies faced comparable reporting pressures. The finding also does not support Yolanda & Mita (2025), who found a positive association in the context of real earnings management, suggesting the profitability-earnings management link differs across earnings management measures and industry settings.

Overall, the relatively low adjusted R-squared (5.33%) indicates that earnings management in the infrastructure sector is influenced by many factors beyond the four variables examined, such as leverage, ownership structure, firm size, and political connections. Nevertheless, the significant simultaneous effect and the robust negative effect of audit quality demonstrate that external monitoring mechanisms remain relevant in constraining opportunistic reporting behavior in this strategically important sector.

## CONCLUSION

This study examines the effect of audit quality, audit committee, CEO characteristics, and profitability on earnings management in 34 infrastructure companies listed on the Indonesia Stock Exchange during 2021-2025, using 170 balanced panel observations. Simultaneously, the four variables significantly affect earnings management. Partially, audit quality has a negative and significant effect, confirming the role of Big Four auditors as an effective external monitoring mechanism; the audit committee has a positive and significant effect, indicating that a larger committee does not guarantee stronger oversight and may reflect formal rather than substantive compliance; while CEO characteristics and profitability have no significant effect on earnings management.

This study has several limitations. The model's explanatory power is relatively low, indicating other unexamined determinants; the audit committee is measured only by the number of members and CEO characteristics only by tenure, so dimensions such as committee expertise, independence, meeting frequency, and CEO education and gender are not captured; and earnings management is measured solely by accrual-based discretionary accruals. Future research is encouraged to incorporate additional governance and firm-specific variables such as leverage, ownership structure, and firm size, to use richer measures of audit committee effectiveness and CEO characteristics, and to complement the Modified Jones Model with real earnings management measures. For regulators, the findings imply that the enforcement of audit committee regulation should emphasize substantive effectiveness rather than the fulfillment of minimum membership requirements; for investors, the reputation of the external auditor remains a useful signal of financial reporting quality in the infrastructure sector.

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