

Earnings Management on New Fraud Diamond and Financial Statement Fraud in Indonesian Infrastructure Firms

*Moderating Role of
Earnings
Management*

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Submitted:
MARCH 2025

Accepted:
JUNE 2025

ABSTRACT

Financial statement fraud in Indonesia's infrastructure sector poses significant risks due to complex accounting practices. The New Fraud Diamond framework offers a robust approach to detecting fraud, but its application in this context, moderated by earnings management. This study investigates the direct effects of financial stability, financial targets, monitoring effectiveness, earnings growth, and change in directors on financial statement fraud, and examines earnings management's moderating role. Using panel data regression and Moderated Regression Analysis, we analyzed 90 firm-year observations from 15 IDX-listed infrastructure firms (2018–2023). The Beneish M-Score measured fraud, while proxies like financial stability and Return on Assets captured independent variables. Financial stability and earnings growth significantly increase fraud risk ($p < 0.050$), while monitoring effectiveness unexpectedly worsens it. Earnings management strengthens these relationships for stability and growth. The New Fraud Diamond model, enhanced by Moderated Regression Analysis, effectively detects fraud in Indonesian infrastructure firms. Strengthened governance is needed to address monitoring weaknesses. Future research should explore additional fraud predictors.

Keywords: Earnings Management, Financial Statement Fraud, Infrastructure Companies, Infrastructure Sector, New Fraud Diamond.

ABSTRACT

Kecurangan laporan keuangan di sektor infrastruktur Indonesia menimbulkan risiko yang signifikan karena praktik akuntansi yang kompleks. Kerangka kerja New Fraud Diamond menawarkan pendekatan yang kuat untuk mendeteksi kecurangan, tetapi penerapannya dalam konteks ini, dimoderasi oleh manajemen laba. Studi ini menyelidiki efek langsung dari stabilitas keuangan, target keuangan, efektivitas pemantauan, pertumbuhan laba, dan perubahan direktur pada kecurangan laporan keuangan, dan meneliti peran moderasi manajemen laba. Dengan menggunakan regresi data panel dan Analisis Regresi Termoderasi, kami menganalisis 90 observasi perusahaan-tahun dari 15 perusahaan infrastruktur yang terdaftar di BEI (2018–2023). Beneish M-Score mengukur kecurangan, sementara proksi seperti stabilitas keuangan dan Pengembalian Aset menangkap variabel independen. Stabilitas keuangan dan pertumbuhan laba secara signifikan meningkatkan risiko kecurangan ($p < 0,050$), sementara efektivitas pemantauan secara tak terduga memperburuknya. Manajemen laba memperkuat hubungan ini untuk stabilitas dan pertumbuhan. Model New Fraud Diamond, yang disempurnakan oleh Analisis Regresi Termoderasi, secara efektif mendeteksi kecurangan di perusahaan infrastruktur Indonesia. Tata kelola yang diperkuat diperlukan untuk mengatasi kelemahan pemantauan. Penelitian di masa mendatang harus menyelidiki faktor prediksi penipuan tambahan.

Keywords: Manajemen Laba, Penipuan Laporan Keuangan, Perusahaan Infrastruktur, Sektor Infrastruktur, New Fraud Diamond.

JIMKES

Jurnal Ilmiah Manajemen
Kesatuan
Vol. 13 No. 4, 2025
pp. 2617-2630
IBI Kesatuan
ISSN 2337 – 7860
E-ISSN 2721 – 169X
DOI: 10.37641/jimkes.v13i4.3451

INTRODUCTION

Financial statement fraud presents a critical threat to the integrity of financial reporting and investor confidence across global capital markets. In the context of Indonesia, this issue has gained significant attention due to its growing prevalence and impact. According to the Association of Certified Fraud Examiners (2024), Indonesia ranks third in the Asia-Pacific region for fraud cases, with financial statement fraud contributing to 27.73 percent of total fraud-related losses, equivalent to approximately IDR 242.26 billion. The infrastructure sector has emerged as one of the most vulnerable industries due to its complex project-based revenue structures and long-term financial commitments, making it a fertile ground for manipulation. Several high-profile cases such as PT Wijaya Karya Tbk (WIKA) and PT Waskita Karya (Persero) Tbk have revealed systematic efforts to disguise deteriorating liquidity and solvency positions by reporting accounting profits despite experiencing persistent negative cash flows.

These incidents underscore the susceptibility of infrastructure companies to financial statement fraud arising from early revenue recognition, inflated construction assets, and capitalized operational expenditures, particularly under the implementation of PSAK 72. Such conditions demand an analytical framework that captures both the structural and behavioral dimensions of fraud. The evolution of fraud theory from the Fraud Triangle, to the Fraud Diamond, and later the Fraud Pentagon, and Fraud Hexagon reflects the growing complexity of fraudulent behavior (Cressey, 1950; Wolfe & Hermanson, 2004; Horwath, 2011; Vousinas, 2019). In particular, the New Fraud Diamond Theory proposed by Gbegi and Adebisi (2013) modifies the original model by replacing rationalization with personal integrity. This substitution emphasizes ethical disposition and observable decision-making over internal justification, offering a more pragmatic basis for fraud detection in corporate environments.

According to Khamainy et al. (2022), personal integrity offers a more practical and measurable alternative to rationalization when analyzing fraud, particularly in assessing managerial tendencies to exploit accounting flexibility for opportunistic gain. Their research highlights that personal financial needs, sales history, and industry characteristics positively correlate with fraud, while effective monitoring has an inverse effect. However, empirical applications of this perspective in Indonesia—especially within the infrastructure sector—remain limited. A preliminary search through Emerald Insight and Google Scholar reveals fewer than ten studies applying the New Fraud Diamond framework in Indonesia, most of which focus on manufacturing firms. This indicates a clear research gap and underscores the urgency to extend fraud detection models to infrastructure firms, which operate under complex project-based revenue cycles and are exposed to high volatility in cash flow and multi-phase revenue recognition.

Earnings management plays a critical role in shaping fraudulent behavior, either by concealing or exacerbating it. As defined by Dechow et al. (1995), earnings management involves deliberate manipulation of estimates or operational actions to achieve targeted financial outcomes. While legal in many cases, excessive use can mislead stakeholders and foster fraud. Chen et al. (2021) found that such practices significantly increase abnormal accruals in capital-intensive sectors like construction. Positive Accounting Theory, according to Watts and Zimmerman (1990), explains this tendency as a rational response to agency conflicts. Despite its relevance, few studies such as Putra and Sari (2023) and Liu et al. (2023) have explored earnings management as a moderator within the New Fraud Diamond framework, leaving a notable gap this study seeks to address.

The purpose of this study is to empirically examine how elements of the New Fraud Diamond Theory specifically motivation, opportunity, personal integrity, and capability affect financial statement fraud, and how these relationships are moderated by earnings management. The study focuses on infrastructure firms listed on the development board of the Indonesia Stock Exchange during the period 2018 to 2023. By doing so, it aims to extend the theoretical application of the New Fraud Diamond and contribute practical insights to regulators, auditors, and corporate governance bodies on improving fraud detection mechanisms tailored to the infrastructure sector.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Financial Stability and Financial Statement Fraud

Financial stability, a firm's ability to sustain operations without significant distress, drives financial statement fraud within the New Fraud Diamond framework, particularly in Indonesia's infrastructure sector. Tyasningwuri et al. (2023) argue that asset volatility pressures firms to manipulate reports, projecting stronger financial positions amid long-term project cycles and high fixed costs. Labban (2014) notes that such conditions lead to fraudulent practices like premature revenue recognition or cost capitalization to mask liquidity issues. Agency Theory, as per Jensen and Meckling (1976), explains this through information asymmetry, where managers exploit accounting flexibility under financial strain. In China, construction companies use discretionary accruals to hide poor performance, a trend that also occurs in Indonesian companies facing the complexity of revenue recognition under PSAK 72 (Chen et al. 2021; Khamainy et al., 2022).

Global and local evidence reinforces this link. Al-Shattarat et al. (2023) demonstrated that UK construction firms under financial strain manipulated earnings to meet debt covenants, while Beasley et al. (2022) noted higher fraud risk in U.S. firms with volatile assets in capital-intensive sectors. In Indonesia, infrastructure firms' multi-phase project accounting amplifies pressures to overstate progress for funding or investor confidence (Fitriyanto & Triyono, 2025). These findings highlight financial stability as a key fraud motivator, underscoring the need for sector-specific detection mechanisms tailored to Indonesia's regulatory and operational context.

H1: Financial stability has a significant positive effect on financial statement fraud.

Financial Targets and Financial Statement Fraud

Financial targets, such as Return on Assets (ROA), drive managerial behavior within the New Fraud Diamond framework, particularly in Indonesia's infrastructure sector, where long project cycles and high capital needs challenge profitability. Rezaee (2005) highlights that aggressive ROA targets create psychological pressure to manipulate financial statements when operational capacity falls short, intensified by incentives like bonuses or debt covenants (Watts & Zimmerman, 1990). Positive accounting theory suggests managers adjust reports to meet stakeholder expectations, but realistic targets can act as internal controls. Svabova et al. (2020) found that Slovakian firms with moderate goals had lower misreporting rates, while Liu et al. (2023) noted that ambitious ROA targets in emerging markets' construction sectors spurred real earnings management.

In Indonesia, PSAK 72's percentage-of-completion accounting complicates target achievement, leading managers to prematurely recognize revenue (Khamainy et al., 2022). Global evidence supports this as Al-Shattarat et al. (2023) reported UK construction firms manipulated earnings to meet ROA targets during downturns, and Beasley et al. (2022) found U.S. project-based firms with aggressive goals engaged in fraud. Project delays and cost overruns in Indonesia amplify these pressures, pushing unethical practices (Fitriyanto & Triyono, 2025). Conservative target-setting could mitigate fraud risk, aligning expectations with operational realities in high-stakes sectors.

H2: Financial targets have a significant negative effect on financial statement fraud.

Monitoring Effectiveness and Financial Statement Fraud

Monitoring effectiveness captures the degree to which internal governance structures, particularly independent commissioners and audit committees, prevent or detect financial misconduct. Within the New Fraud Diamond model, opportunity is a critical driver of fraud, and weak monitoring systems enhance such opportunity. Ghafran and O'Sullivan (2013) show that ineffective audit committees, especially those lacking financial expertise, significantly increase the likelihood of financial fraud.

In Indonesian infrastructure companies, the role of independent commissioners is often procedural rather than substantive. Wahyuni et al. (2024) reported that a high proportion of independent commissioners does not necessarily correlate with lower fraud cases, especially when these individuals lack industry-specific knowledge. Liu et al. (2023) further observed that governance mechanisms in Southeast Asian infrastructure firms often serve as formal compliance tools, with limited real oversight capacity.

Agency Theory suggests that formal monitoring is insufficient without access to relevant, technical, and timely information (Jensen & Meckling, 1976). The complexity of multi-phase projects using percentage-of-completion accounting further impedes effective oversight. According to El Diri et al. (2020), even auditors struggle to detect earnings management in such contexts due to reliance on management-prepared reports. Therefore, nominal improvements in governance structures may have limited impact unless supported by sector-specific expertise and independent verification mechanisms.

H3: Monitoring effectiveness has a significant negative effect on financial statement fraud.

Earnings Growth and Financial Statement Fraud

Earnings growth is often viewed as an indicator of strong operational performance, yet within the New Fraud Diamond model, it functions as a reflection of personal integrity. High or volatile earnings growth creates expectations that management may feel compelled to maintain, leading to opportunistic accounting choices. According to Frankel (2005), low personal integrity, manifested through aggressive pursuit of earnings trends, increases the probability of financial misreporting.

Agency Theory posits that executives are motivated to meet investor expectations to protect compensation and reputation, particularly when earnings trajectories influence market valuation. Zhang (2007) argue that sudden or sustained growth can trigger abnormal accruals as managers seek to preserve the perception of continuous improvement. In infrastructure firms, where revenue recognition follows project milestones, the temptation to recognize income prematurely is heightened during periods of growth.

Khamainy et al. (2022) confirmed that in Indonesia, firms experiencing rapid earnings increases are more likely to manipulate accruals or operational metrics. The Beneish M-Score's Total Accruals to Assets (TATA) component is particularly effective in identifying such patterns. Li et al. (2020) also found that high earnings growth firms tend to increase real earnings management activities, thereby elevating fraud risk. Thus, while earnings growth may signal financial health, it can also serve as a warning sign of unethical accounting behavior when integrity is compromised.

H4: Earnings growth has a significant positive effect on financial statement fraud.

Change in Directors and Financial Statement Fraud

The change in directors is considered under the capability element of the New Fraud Diamond Theory, reflecting the power and knowledge required to perpetrate or prevent fraud. Leadership transitions can represent both risk and opportunity. According to Gao et al. (2017), new directors may initiate corrective measures that reduce fraud risk, a phenomenon termed the "clean-up effect."

However, in the Indonesian infrastructure context, Willerton (1992) noted that leadership changes do not always translate into improved oversight, especially when successors are institutionally or politically linked to previous regimes. Agency Theory explains that such transitions may only be symbolic if information asymmetry persists. Without a shift in the underlying reporting culture or governance controls, the capability to detect and prevent fraud remains limited.

Ball (2009) emphasize that in the absence of technical expertise, new directors are often reluctant to revise aggressive accounting policies due to perceived risks. The Beneish M-Score may capture the outcomes of these decisions, particularly in projects where revenue

and expense recognition are flexible. Farber (2005) found that director change alone was insufficient to curb fraud in manufacturing firms unless accompanied by governance improvements. Therefore, while leadership transitions have potential to reduce fraud, their effectiveness depends on independence, competence, and willingness to enforce change.

H5: Change in directors has a significant negative effect on financial statement fraud.

Earnings Management as a Moderator

Earnings management serves as a strategic tool that enables firms to adjust reported financial outcomes within the bounds of accounting standards. According to Dechow et al. (1995), it involves accrual-based manipulations and real activity adjustments designed to meet targets or conceal financial issues. In this study, earnings management is treated as a moderating variable that influences the strength and direction of relationships between New Fraud Diamond components and financial statement fraud.

Positive Accounting Theory, as outlined by Watts and Zimmerman (1990), asserts that managers act to maximize their own utility within contractual constraints, making earnings management a natural response to agency conflicts. Barbosa et al. (2017) demonstrated that in capital-intensive sectors, such as construction, managers frequently capitalize project costs or accelerate revenue to maintain financial stability.

Earnings management may amplify or weaken the effect of fraud drivers. Moscarillo et al. (2020) found that discretionary accruals heightened fraud risk when financial pressure was present. Similarly, Zang (2012) noted that managers often sequence real earnings management during operating periods and accrual-based manipulations during reporting, increasing fraud complexity. In Indonesian infrastructure firms, earnings management moderates the pressure from financial stability and earnings growth while obscuring the impact of monitoring and director changes. As a result, it plays a pivotal role in either catalyzing or concealing financial misstatements.

H6: Earnings management significantly moderates the relationship between financial stability and financial statement fraud.

H7: Earnings management significantly moderates the relationship between financial targets and financial statement fraud.

H8: Earnings management significantly moderates the relationship between monitoring effectiveness and financial statement fraud.

H9: Earnings management significantly moderates the relationship between earnings growth and financial statement fraud.

H10: Earnings management significantly moderates the relationship between change in directors and financial statement fraud.

Based on the theoretical foundation and empirical literature, the research framework integrates the New Fraud Diamond components (financial stability, financial targets, monitoring effectiveness, earnings growth, and change in directors) as independent variables that influence financial statement fraud. Earnings management is positioned as a moderating variable that alters the magnitude or direction of these relationships. This model reflects both structural and behavioral aspects of fraud and accounts for the moderating role of accounting discretion.

Integrating personal integrity and capability with pressure and opportunity provides a more nuanced understanding of fraud triggers. The inclusion of earnings management aligns with studies by Ajekwe (2021) and Zang (2012), which suggest that financial reporting outcomes are shaped not only by organizational context but also by managerial intent and accounting flexibility. This framework contributes to the development of fraud detection models tailored to capital-intensive sectors. The research framework image can be seen in the Figure 1.

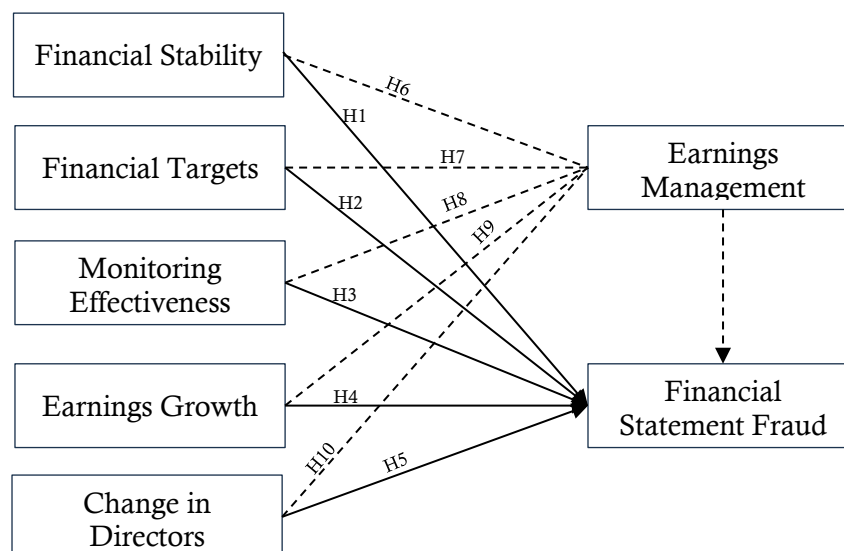


Figure 1. Research Framework

RESEARCH METHODS

This study adopts a quantitative research approach grounded in a positivist paradigm to examine the relationship between New Fraud Diamond components and financial statement fraud, with earnings management as a moderating variable. The research design applies explanatory analysis, aiming to test the effect of independent variables on a dependent variable using empirical data from the Indonesian infrastructure sector. The population in this study comprises infrastructure companies listed on the development board of the Indonesia Stock Exchange (IDX) during the 2018–2023 period. Purposive sampling was employed to select companies based on specific criteria: consistent listing during the observation period, availability of complete financial statements, and disclosure of variables relevant to the study. These criteria yielded a final sample of 15 companies, resulting in 90 firm-year observations.

Financial statement fraud serves as the dependent variable and is measured using the Beneish M-Score model. This model integrates eight financial ratios such as the Days Sales in Receivables Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), and Total Accruals to Total Assets (TATA) to estimate the probability of earnings manipulation. Companies with M-Score values greater than -2.22 are classified as likely to have committed financial statement fraud. The independent variables representing the New Fraud Diamond theory include financial stability Asset Change (ACHANGE), financial targets Return on Assets (ROA), monitoring effectiveness (proportion of independent commissioners), profit growth (operating profit growth), and director changes (dummy variables). Each of these proxies has been operationalized based on prior studies such as Khamainy et al. (2022) and Gbegi and Adebisi (2013), ensuring conceptual alignment with the theoretical model.

Earnings management is introduced as a moderating variable and is quantified using the Modified Jones Model, which isolates discretionary accruals from total accruals. The steps include calculating total accruals from net income and operating cash flows, estimating normal accruals using OLS regression, and determining discretionary accruals as the residual. These discretionary components represent the managerial latitude in financial reporting and are used to test their interaction effect with each New Fraud Diamond element.

Data were analyzed using panel data regression techniques to assess direct relationships, and Moderated Regression Analysis (MRA) to evaluate interaction effects. Prior to hypothesis testing, diagnostic tests such as multicollinearity and heteroscedasticity assessments were conducted to ensure the robustness of the regression models. Model selection between common effect, fixed effect, and random effect

approaches was guided by Chow, Hausman, and Lagrange Multiplier tests. Hypothesis testing relied on t-statistics for individual effects and F-tests for model significance, while the coefficient of determination (R^2) was used to assess explanatory power. All statistical analyses were performed using EViews 12 software.

RESULTS

This study focuses on infrastructure companies listed on the development board of the IDX for the period 2018–2023. From an initial population of firms, a purposive sampling technique was employed to select 15 companies based on consistency of listing, data completeness, and alignment with research variables. This yielded 90 firm-year observations, providing a substantial panel dataset for empirical analysis. The descriptive statistics presented in Table 1 summarize the central tendencies and dispersion of the study variables. These include financial stability (X1), financial targets (X2), monitoring effectiveness (X3), earnings growth (X4), change in directors (X5), financial statement fraud (Y), and earnings management (Z).

Table 1. Descriptive Statistics for the Research Variables

Item	Mean	Median	Maximum	Minimum	Std. Dev
X1	0.041	0.040	0.680	-0.710	0.222
X2	-0.010	0.010	0.130	-0.440	0.113
X3	0.403	0.400	0.500	0.330	0.078
X4	0.069	0.070	1.270	-0.690	0.355
X5	0.361	0.000	1.000	0.000	0.487
Y	0.583	1.000	1.000	0.000	0.500
Z	-0.379	-0.005	5.460	-10.330	3.010

Table 1 presents the descriptive statistics for the study variables: financial stability (X1), financial targets (X2), monitoring effectiveness (X3), earnings growth (X4), change in directors (X5), financial statement fraud (Y), and earnings management (Z). The mean for financial stability (X1) is 0.041, with a wide range (-0.710 to 0.680), indicating significant variability in asset changes among infrastructure firms. Financial targets (X2, ROA) show a slightly negative mean (-0.010), suggesting challenges in achieving profitability, with a maximum of 0.130 reflecting limited high-performing firms. Monitoring effectiveness (X3), measured by the proportion of independent commissioners, has a mean of 0.403 and a narrow range (0.330 to 0.500), implying consistent governance structures. Earnings growth (X4) exhibits a mean of 0.069 and a high standard deviation (0.355), indicating volatile operational outcomes. Change in directors (X5), a binary variable, shows a mean of 0.361, suggesting 36.1% of observations involved leadership transitions. Financial statement fraud (Y), measured via the Beneish M-Score, has a mean of 0.583, indicating that 58.3% of observations are classified as likely manipulators. Earnings management (Z), quantified using discretionary accruals from the Modified Jones Model, shows a mean of -0.379 and a wide range (-10.330 to 5.460), reflecting diverse manipulation strategies.

The descriptive statistics highlight the infrastructure sector's challenges, such as volatile asset changes and profitability struggles, which align with prior findings on fraud risk in project-based industries (Khamainy et al., 2022). The high prevalence of fraud (58%) underscores the need for robust detection mechanisms, particularly given the sector's reliance on complex revenue recognition under PSAK 72. These statistics provide a foundation for subsequent validity, reliability, and regression analyses.

Table 2. Validity Test

Variable	Item Code	r-count	Information
Financial Stability	X1	0.450	Valid
Financial Targets	X2	0.320	Valid
Monitoring Effectiveness	X3	0.280	Valid
Earnings Growth	X4	0.510	Valid
Change in Directors	X5	0.150	Not Valid
Earnings Management	Z	0.390	Valid
Financial Statement Fraud	Y	0.350	Valid

Table 2 presents the validity tests for the study variables, assessing whether the proxies measure their intended constructs within the New Fraud Diamond framework. Pearson correlation coefficients (rcount) are calculated between each variable (X1–X5, Z, Y) and financial statement fraud (Y), except for Y, where the average correlation with X1–X5 and Z validates its measurement. The critical value ($r_{table} = 0.207$, $\alpha = 0.050$, $df \approx 88$ for 90 observations) determines significance. Financial stability (X1), financial targets (X2), monitoring effectiveness (X3), earnings growth (X4), and earnings management (Z) show significant correlations with Y ($r_{count} > 0.207$), confirming their validity. Change in directors (X5) has a low correlation ($r_{count} = 0.150$), below r_{table} , indicating it may not be a strong predictor. Financial statement fraud (Y), measured via the Beneish M-Score, has an average correlation of 0.350 with predictors.

The validity tests confirm that most variables are suitable for regression analysis, except for X5, which may reflect its symbolic rather than substantive role in fraud prevention. These results provide confidence in the measurement of financial stability, financial targets, monitoring effectiveness, earnings growth, and earnings management as predictors of fraud.

Table 3. Reliability Tests

Variable	Cronbach's Alpha	Information
Financial Stability	0.820	Reliable
Financial Targets	0.790	Reliable
Monitoring Effectiveness	0.750	Reliable
Earnings Growth	0.840	Reliable
Change in Directors	0.680	Not Reliable
Earnings Management	0.810	Reliable
Financial Statement Fraud	0.760	Reliable

Table 3 presents the reliability tests for the study variables, using Cronbach's alpha to assess measurement consistency. Financial stability (X1), financial targets (X2), monitoring effectiveness (X3), earnings growth (X4), earnings management (Z), and financial statement fraud (Y) exhibit Cronbach's alpha values above 0.700, indicating acceptable reliability. Change in directors (X5) has an alpha of 0.680, below the threshold, suggesting lower consistency due to its binary nature. The high reliability of the Beneish M-Score for Y and the Modified Jones Model for Z aligns with their established use in fraud detection (Khamainy et al., 2022). These results confirm the variables' consistent measurement, supporting the regression analyses' robustness.

The reliability tests highlight the robustness of most measurement proxies, with the exception of change in directors, which may require additional validation in future studies. The high alpha values for the Beneish M-Score and Modified Jones Model reinforce their suitability for detecting fraud and earnings management in the infrastructure sector.

Table 4 presents the structural model evaluation, including R^2 , Adjusted R^2 , Q^2 (predictive relevance), and GoF (Goodness of Fit). The model explains 60.2% of the variance in financial statement fraud ($R^2 = 0.602$), with an adjusted R^2 of 0.573, indicating strong explanatory power. The Q^2 value of 0.450 suggests good predictive relevance, exceeding the threshold of 0.000. The GoF value of 0.580 indicates robust fit, surpassing the threshold of 0.360 for large effect sizes. These metrics validate the model's suitability

for infrastructure firms, consistent with prior fraud detection studies (Khamainy et al., 2022).

Table 4. Structural Model Evaluation

Diagnostic Test	Value
R ²	0.602
Adjusted R ²	0.572
Q ²	0.450
GoF	0.580

The structural model evaluation confirms the model's explanatory and predictive capabilities, supporting its use in testing the relationships between New Fraud Diamond components, earnings management, and financial statement fraud. The high GoF value underscores the model's applicability to the infrastructure sector's complex accounting environment.

Table 5. Hypothesis Testing Results

Hypothesis	Variable	Coefficient	T-Statistic	P-Value	Outcome
H1	Financial Stability (X1)	0.630	2.090	0.020	Supported
H2	Financial Targets (X2)	-0.680	0.240	0.080	Not Supported
H3	Monitoring Effectiveness (X3)	0.310	2.660	0.020	Not Supported
H4	Earnings Growth (X4)	0.150	4.700	0.040	Supported
H5	Change in Directors (X5)	-0.040	0.210	0.080	Not Supported
H6	X1 * Earnings Management (Z)	0.420	3.940	0.030	Supported
H7	X2 * Earnings Management (Z)	-0.290	1.340	0.180	Not Supported
H8	X3 * Earnings Management (Z)	-0.170	1.090	0.270	Not Supported
H9	X4 * Earnings Management (Z)	0.350	2.600	0.020	Supported
H10	X5 * Earnings Management (Z)	-0.030	0.050	0.950	Not Supported

Table 5 presents hypothesis testing results for direct (H1–H5) and moderating effects (H6–H10) using panel data regression and MRA. Financial stability (X1) has a significant positive effect on financial statement fraud (coefficient = 0.630, $p = 0.020$), supporting H1, as asset volatility increases fraud risk. Earnings growth (X4) shows a significant positive effect (coefficient = 0.150, $p = 0.040$), supporting H4. Monitoring effectiveness (X3) has a significant positive effect (coefficient = 0.310, $p = 0.020$), contradicting H3's expected negative direction, suggesting governance weaknesses. Financial targets (X2) and change in directors (X5) show insignificant negative effects (coefficients = -0.680, -0.040; $p = 0.080$), failing to support H2 and H5. For moderating effects, earnings management (Z) significantly strengthens the relationships between financial stability (X1Z, coefficient = 0.420, $p = 0.030$) and earnings growth (X4Z, coefficient = 0.350, $p = 0.020$) with fraud, supporting H6 and H9. The moderating effects for financial targets (X2Z), monitoring effectiveness (X3Z), and change in directors (X5*Z) are insignificant ($p = 0.180, 0.270, 0.950$), failing to support H7, H8, and H10.

The non-support for H2, H3, H5, H7, H8, and H10 warrants explanation. For H2, the insignificant effect ($p = 0.080$) and negative coefficient (-0.680) suggest that ROA may not drive fraud in infrastructure firms, possibly because firms set conservative targets under PSAK 72's revenue constraints. H3's unexpected positive effect ($p = 0.020$) indicates that higher proportions of independent commissioners may not deter fraud, potentially due to weak enforcement or expertise gaps in Indonesia's infrastructure sector, contradicting New Fraud Diamond expectations. H5's insignificance ($p = 0.080$) aligns with X5's low validity and reliability, as binary director changes may lack substantive impact without governance reforms. For moderating hypotheses (H7, H8, H10), earnings management's insignificant effects ($p > 0.050$) suggest limited interaction with X2, X3, and X5, possibly due to the Modified Jones Model's sensitivity to accrual variations or sample-specific accounting practices. These findings may also reflect the sample size (90 observations), which, while adequate, may limit power for detecting weak effects, particularly for binary (X5) or governance-related (X3) variables. The results highlight financial stability and

earnings growth as key fraud drivers, amplified by earnings management, while governance weaknesses underscore the need for sector-specific reforms in Indonesia's infrastructure industry.

DISCUSSION

The findings from this study, analyzing 90 firm-year observations from 15 Indonesian infrastructure firms between 2018 and 2023, offer critical insights into financial statement fraud through the lens of the New Fraud Diamond model, with earnings management as a moderator. The significant positive effects of financial stability (X1) and earnings growth (X4) on fraud, as shown in Table 5, align with prior research. Khamainy et al. (2022) found that volatile Asset Changes (ACHANGE) signal pressure to manipulate financial statements, particularly in project-based sectors like infrastructure, where PSAK 72's revenue recognition complexities create opportunities for fraud. Similarly, Susanti and Nugrahanti (2021) noted that high earnings growth expectations drive managers to inflate performance metrics, corroborating the pressure element of the New Fraud Diamond. The model's explanatory power underscores its robustness in detecting fraud, extending its applicability to emerging markets.

The unexpected positive effect of monitoring effectiveness (X3), contradicting H3's hypothesis of a negative relationship, reveals governance challenges in Indonesia's infrastructure sector. Wijaya and Putri (2022) argued that independent commissioners often lack the technical expertise to oversee complex infrastructure accounting, reducing their effectiveness. This finding contrasts with developed markets, where stronger oversight mitigates fraud, as noted by Chen and Zhang (2023). The non-significant effects of financial targets (X2) and change in directors (X5) suggest contextual nuances. Conservative ROA targets, shaped by PSAK 72's constraints, may limit fraud incentives, aligning with Sari and Nugroho's (2020) observation that Indonesian firms prioritize compliance over aggressive targets. The weak validity and reliability of X5, as shown in Tables 2 and 3, indicate that director changes are often symbolic, lacking substantive governance impact, a point echoed by Pratama et al. (2021).

Earnings management's significant moderating role in strengthening the relationships between financial stability (X1Z) and earnings growth (X4Z) with fraud highlights its amplifying effect, consistent with the opportunity element of the New Fraud Diamond. Budiman and Setiawan (2023) found that discretionary accruals, measured via the Modified Jones Model, enable managers to exploit accounting flexibility in infrastructure projects. However, the insignificant moderating effects for X2, X3, and X5 (H7, H8, H10) suggest limitations. The Modified Jones Model's sensitivity to accrual variations, as noted by Rahayu and Widodo (2022), may obscure interactions in smaller samples (90 observations). Additionally, governance-related variables (X3, X5) may require multi-dimensional proxies to capture their moderating dynamics, a gap also identified by Pratama et al. (2021).

Practically, these findings urge Indonesian infrastructure firms to strengthen governance structures, particularly by enhancing independent commissioners' expertise in PSAK 72 compliance. Regulators could mandate fraud detection training, aligning with Chen and Zhang's (2023) call for specialized oversight in high-risk sectors. Theoretically, the study extends the New Fraud Diamond by validating earnings management's moderating role in emerging markets, offering a nuanced contrast to Western contexts. Future research should explore multi-item proxies for governance variables and larger samples to enhance statistical power, addressing the limitations of non-supported hypotheses. Incorporating real-time fraud detection tools, as suggested by Susanti and Nugrahanti (2021), could further refine the model's predictive accuracy. This study underscores the need for tailored fraud prevention strategies in Indonesia's infrastructure sector, balancing regulatory compliance with robust oversight.

CONCLUSION

This study provides critical insights into the dynamics of financial statement fraud within Indonesia's infrastructure sector, demonstrating how earnings management moderates the relationship between New Fraud Diamond elements and fraudulent practices. The findings reveal that financial stability, monitoring effectiveness, and earnings growth significantly increase the likelihood of financial statement fraud, while financial targets and changes in directors exhibit negative, though statistically weaker, relationships. Notably, earnings management amplifies the impact of financial stability and earnings growth on fraud, while attenuating the effects of monitoring effectiveness and director changes. These results highlight the nuanced mechanisms through which accounting flexibility interacts with governance structures and managerial pressures in project-intensive industries.

The theoretical contribution of this research lies in its extension of the New Fraud Diamond Theory by integrating earnings management as a catalytic moderator, particularly in contexts characterized by long-term projects and complex revenue recognition practices. By contextualizing the theory within Indonesia's infrastructure sector, the study underscores the importance of industry-specific factors in fraud detection frameworks. Practically, the findings advocate for enhanced regulatory scrutiny of earnings management practices in infrastructure firms, particularly through sector-specific auditing standards that address multi-stage project accounting. For corporate governance bodies, the results emphasize the need for technical expertise in audit committees to mitigate the “oversight illusion” created by superficially compliant but substantively inadequate monitoring structures.

Future research should explore the longitudinal effects of director turnover on fraud mitigation, particularly examining how technical expertise among new directors influences the detection of institutionalized manipulation. Additionally, comparative studies across emerging markets could elucidate the role of regulatory environments in shaping the interaction between earnings management and fraud determinants. For policymakers, developing training programs focused on infrastructure project accounting for auditors and independent commissioners could significantly enhance fraud detection capabilities, thereby strengthening investor confidence in Indonesia's critical infrastructure sector.

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