

Audit Tenure, CEO Educational Background, and Governance Effectiveness: An Empirical Investigation of Financial Statement Fraud

Umi Nur Fryda Kusli Rochmah¹
Gideon Setyo Budiwitjaksono²

^{1,2}Faculty of Economics and business, Universitas Pembangunan Nasional "Veteran" Jawa Timur

*Correspondences: gideon.ak@upnjatim.ac.id

ABSTRACT

This study examines the influence of audit tenure, CEO education, and ineffective monitoring on fraudulent financial statements in state-owned enterprises (BUMN) listed on the Indonesia Stock Exchange during the period 2021–2023. A quantitative approach is employed, utilizing panel data regression analysis on a sample of 19 BUMN companies. Data were obtained from annual report documentation and analyzed using E-Views 12 software. Fraudulent financial reporting is measured using the Beneish M-Score as a proxy. The results reveal that audit tenure and ineffective monitoring do not have a statistically significant effect on the likelihood of financial statement fraud. In contrast, CEO education has a significant negative effect, suggesting that higher levels of CEO education are associated with a lower propensity for fraudulent financial reporting. Furthermore, when assessed simultaneously, the three variables collectively exhibit a significant influence on the occurrence of fraudulent financial statements. These findings underscore the important role of CEO educational attainment in enhancing financial reporting integrity and preventing fraudulent practices.

Keywords: Audit Tenure; CEO Education; Fraudulent Financial Statement; Ineffective Monitoring.

Masa Jabatan Auditor, Latar Belakang Pendidikan CEO, dan Efektivitas Tata Kelola: Investigasi Empiris atas Kecurangan Laporan Keuangan

ABSTRAK

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INTRODUCTION

High-quality financial statements serve as a critical instrument for evaluating a company's performance and reflecting the integrity of its financial reporting (Taruno & Budiwitjaksono, 2025). Moreover, they function as an essential source of information for stakeholders in supporting the decision-making process (Mukaromah & Budiwitjaksono, 2021; Pitaloka & Budiwitjaksono, 2022; Setyaningrum & Budiwitjaksono, 2024; Wiratama & Budiwitjaksono, 2021). Thus, the financial data provided becomes relevant and reliable for all stakeholders (Budiwitjaksono et al., 2024).

With the advancement of time and technology, fraudulent practices in the business environment have evolved in both form and method. One such form is financial fraud. According to the Association of Certified Fraud Examiners (ACFE), 1,921 fraud cases were identified across 138 countries, with total losses amounting to USD 3.1 billion (ACFE, 2024). In Indonesia, 239 fraud cases were recorded, falling under three major fraud schemes, with total losses reaching IDR 873.43 billion (ACFE Indonesia, 2020). The ACFE classifies fraud into three main types: asset misappropriation, corruption, and financial statement fraud. Among these, financial statement fraud recorded a 9% increase from 2022, with average losses of USD 593,000 per case, rising to an average of USD 766,000 per case in 2024 (ACFE, 2024).

In the Indonesian context, State-Owned Enterprises (SOEs) are particularly noteworthy. Although they play a vital role in the national economy, they remain vulnerable to financial statement manipulation (Batara & Budiwitjaksono, 2025; Haqq & Budiwitjaksono, 2020; Mukaromah & Budiwitjaksono, 2021; Sanjaya et al., 2021). According to CNBC Indonesia, the Minister of SOEs acknowledged that many of these entities still engage in manipulative practices—such as “window dressing”—to present an inflated image of financial health (Lubis & Budiwitjaksono, 2023; Sandi, 2020). These practices, commonly known as earnings management, are aimed at projecting a misleading picture of financial strength, thereby misleading stakeholders (Sihotang & Budiwitjaksono, 2024; Wiratama & Budiwitjaksono, 2021). For instance, in the cases of Waskita and WIKA, manipulation occurred due to the failure to disclose actual field conditions, leading to reports that falsely portrayed continuous profitability and stable cash flows over several years (Idris, 2023).

The prevalence of fraudulent financial statements in SOEs is influenced by various factors. One such factor is information asymmetry between management and investors, which can foster conservatism and heighten the risk of fraud (Kinaryosih et al., 2024). Accordingly, the involvement of independent auditors—who operate in accordance with established standards—is essential to mitigate the risk of fraud.

Audit tenure, defined as the length of time an independent auditor is engaged with a company, is widely debated in relation to its impact on auditor independence. Prolonged engagement may compromise independence and raise the risk of financial statement fraud (Adriansyah & Budiwitjaksono, 2024; Handoko et al., 2020). Beyond audit tenure, other contributing factors include CEO education. A higher educational level may enhance executive power, which in some instances could be leveraged to engage in fraudulent reporting

(Probohudono et al., 2022). Ineffective monitoring, indicated by a low proportion of independent commissioners, may also weaken oversight, thereby increasing the likelihood of fraud (Handayani, 2023; Lubis & Budiwitjaksono, 2023).

Despite the importance of these three variables, existing literature does not fully explore their interactive influence on fraudulent financial reporting within the context of SOEs. Given the complexity and economic significance of SOEs, this study aims to examine the effects of audit tenure, CEO education, and ineffective monitoring on fraudulent financial statements in SOEs listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period.

Agency theory provides a framework for understanding the relationship between principals and agents, particularly the conflicts of interest that may arise (Jensen & Meckling, 1976). These conflicts can be mitigated by the presence of independent auditors, who help reduce agency problems and limit information asymmetry (Pratiwi & Rohman, 2021). Meanwhile, fraud theory identifies three core elements—pressure, opportunity, and rationalization—that contribute to fraudulent behavior (Cressey, 1953). This theory has since evolved into the fraud heptagon, encompassing seven dimensions (Reskino & Bilkis, 2022).

The client-auditor relationship has been shown to influence audit outcomes. Prolonged engagements can compromise auditor independence due to increased familiarity, potentially lowering audit quality and increasing the risk of fraud (Nasir et al., 2021). Conversely, extended tenure may enhance the auditor's understanding of the client's operations, which could improve audit quality and aid in fraud detection (Putri et al., 2021).

Within agency theory, prolonged audit tenure may trigger conflicts of interest, ultimately increasing the risk of manipulation in financial statements due to diminished auditor objectivity. From the perspective of fraud theory, long-standing auditor engagements may reduce scrutiny, thereby creating opportunities for management to engage in fraudulent practices. Despite this, several studies report no significant relationship between audit tenure and financial statement fraud (Adhitama et al., 2023; Handoko et al., 2020; Revaldi & Simbolon, 2023; Suryani et al., 2023). In contrast, Martha & Wenny (2023) found that extended audit tenure positively correlates with increased financial statement fraud. Based on this theoretical and empirical foundation, the following hypothesis is proposed:

H₁: Audit tenure has a positive effect on fraudulent financial statements.

The majority of fraud perpetrators held undergraduate degrees, accounting for 175 cases or 73.2%, followed by those with master's degrees, comprising 41 cases or 17.2% (ACFE Indonesia, 2020). However, perpetrators occupying executive positions represented 29.4% of cases, making this group the second highest among all categories of fraud offenders (ACFE Indonesia, 2020). According to agency theory, a CEO is expected to fulfill their duties in alignment with shareholders' interests. From the perspective of fraud theory, CEO education influences cognitive frameworks and moral reasoning, which can serve as a strong basis for rejecting fraudulent behavior. However, a highly educated CEO may also possess advanced knowledge that enables the planning and execution of sophisticated fraudulent schemes (Putri & Suryani, 2024).

Studies by Probohudono et al. (2022); Sihombing & Panggulu (2022); Putri & Suryani (2024) found that CEO education does not significantly influence financial statement fraud. Conversely, Saputra et al. (2021) argued that higher CEO education levels are associated with a reduced likelihood of fraud. Contradictory evidence is provided by Wangi et al. (2024), who suggested that higher education may actually increase the potential for fraudulent actions. Based on this literature, the research hypothesis is proposed as follows:

H₂: CEO education has a positive effect on fraudulent financial statements.

Ineffective monitoring provides management with broader discretion, thereby creating more opportunities to engage in fraudulent behavior (Apriyani & Ritonga, 2020). Independent commissioners serve as a central element of corporate governance, offering a mechanism for effective oversight (Ndruru & Hutapea, 2022). In line with agency theory, independent commissioners are tasked with monitoring managerial actions. From the perspective of fraud theory, ineffective monitoring represents the pressure component – where heightened performance demands are not supported by adequate control structures. The combination of intense pressure and weak oversight can incentivize management to manipulate financial statements.

Empirical studies by Fadhilah et al. (2022); Yustikasari & Sari (2024); Kasih & Susilowati (2024) report that ineffective monitoring does not have a significant impact on fraudulent financial statements. In contrast, research by Aprilia & Furqani (2021); Handayani (2023); Nuryana et al. (2024) found that ineffective monitoring positively influences the incidence of fraud. These contrasting findings suggest that the presence and proportion of independent commissioners are critical for ensuring effective monitoring. A lower representation of independent commissioners may result in weaker oversight, thereby increasing the likelihood of fraudulent financial reporting. Based on this reasoning, the following hypothesis is proposed:

H₃: Ineffective monitoring has a positive effect on fraudulent financial statements.

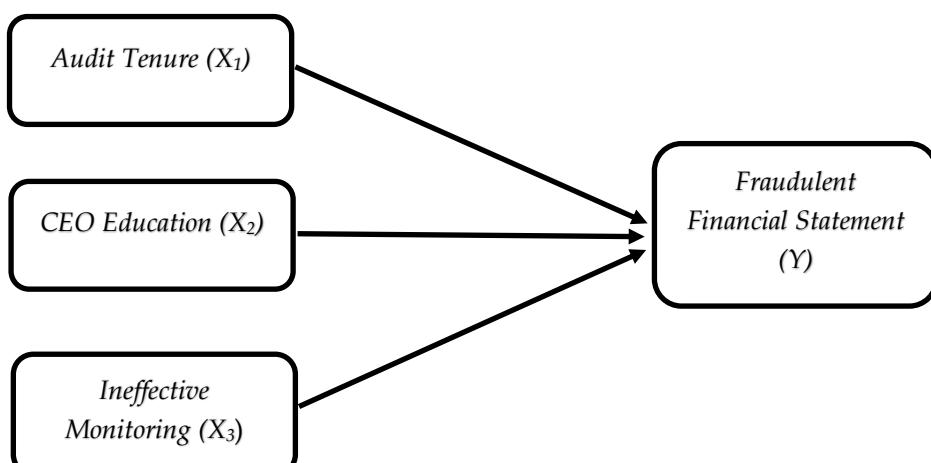


Figure 1. Research Model

Source: Research Data, 2025

RESEARCH METHOD

This study employs a quantitative approach using an explanatory research design. Data were collected through documentation methods, utilizing secondary data in the form of annual reports from state-owned enterprises (SOEs) listed on the Indonesia Stock Exchange (IDX) for the 2021–2023 period. The analytical tool applied in this study is EViews 12 software. The population comprises all SOEs listed on the IDX during the specified period. The sample was determined using a purposive sampling technique based on the following criteria: (1) SOEs listed on the IDX and operating in non-financial sectors during 2021–2023; and (2) companies that published complete financial statements including all variables used in the analysis throughout the study period. Based on these criteria, a total of 19 companies were selected as the sample.

Fraudulent financial statement refers to manipulative practices involving misrepresentation, misappropriation, or overstatement of financial data. In this study, fraudulent financial statement (FFS) functions as the dependent variable and is proxied using the Beneish M-Score. The M-Score is computed using eight financial ratios, as developed by Beneish et al. (2012), and is formulated as follows.

Table 1. Calculation of Financial Ratios for M-Score

No	Ratio	Formula
1	<i>Days Sales Receivables Indeks (DSRI)</i>	$\frac{(\text{Net Receivables}_t / \text{Sales}_t)}{(\text{Net Receivables}_{t-1} / \text{Sales}_{t-1})}$
2	<i>Gross Margin Indeks (GMI)</i>	$\frac{[(\text{Sales}_{t-1} - \text{COGS}_{t-1}) / \text{Sales}_{t-1}]}{[(\text{Sales}_t - \text{COGS}_t) / \text{Sales}_t]}$
3	<i>Asset Quality Indeks (AQI)</i>	$\frac{[(1 - (\text{Current Asset}_t + \text{PP&E}_t)) / \text{Total Assets}_t]}{[(1 - (\text{Current Assets}_{t-1} + \text{PP&E}_{t-1})) / \text{Total Assets}_{t-1}]}$
4	<i>Sales Growth Indeks (SGI)</i>	$\frac{\text{Sales}_t}{\text{Sales}_{t-1}}$
5	<i>Depreciation Indeks (DEPI)</i>	$\frac{[\text{Depreciation}_{t-1} / (\text{Depreciation}_{t-1} + \text{PP&E}_{t-1})]}{[\text{Depreciation}_t / (\text{Depreciation}_t + \text{PP&E}_t)]}$
6	<i>Sales General and Administrative Expenses Indeks (SGAI)</i>	$\frac{(\text{Sales, general and administrative expense}_t / \text{Sales}_t)}{(\text{Sales, general and administrative expense}_{t-1} / \text{Sales}_{t-1})}$
7	<i>Leverage Indeks (LVGI)</i>	$\frac{(\text{LTD}_t + \text{Current Liabilities}_t / \text{Total Assets}_t)}{(\text{LTD}_{t-1} + \text{Current Liabilities}_{t-1} / \text{Total Assets}_{t-1})}$
8	<i>Total Accruals to Total Assets (TATA)</i>	$\frac{(\text{Income from Counting Operations}_t - \text{Cash Flows from Operations}_t) / \text{Total Assets}_t}{\text{Total Assets}_t}$

Source: (Beneish et al., 2012)

The M-Score is calculated using the following equation:

$$M\text{-Score} = -4,84 + 0,92 \text{ DSRI} + 0,528 \text{ GMI} + 0,404 \text{ AQI} + 0,892 \text{ SGI} + 0,115 \text{ DEPI} - 0,172 \text{ SGAI} + 4,679 \text{ TATA} - 0,327 \text{ LVGI} \dots \quad (1)$$

A score of 0 is assigned when the Beneish M-Score result is less than -2,22, indicating that the company is not detected to have engaged in fraudulent financial reporting. Conversely, a score of 1 is assigned if the M-Score exceeds -2,22,

signifying that the company is detected to have committed financial statement fraud (Khatun et al., 2022).

Audit tenure refers to the length of time an auditor has provided audit services to a company. Audit tenure is determined by identifying the initial year the auditor commenced the engagement and tracking the audit period within the research timeframe (Revaldi & Simbolon, 2023). Audit tenure (AUT) is measured as follows:

Audit tenure = the period during which the same auditor has served the company.....(2)

CEO education refers to the premise that the higher a director's educational attainment, the greater their authority within the company, thereby enabling broader influence over corporate decisions. CEO education (CEOEDU) is measured by assigning scores based on academic qualifications: a score of 1 for a Diploma (D3), 2 for a Bachelor's degree (S1), 3 for a Master's degree (S2), and 4 for a Doctoral degree (S3) (Probohudono et al., 2022).

Ineffective monitoring describes a condition in which a company lacks robust internal control mechanisms, resulting in weak oversight of management and a heightened risk of fraud. Ineffective monitoring is measured using the ratio of independent board commissioners (BDOUT) (Apriyani & Ritonga, 2020). The measurement is formulated as follows:

$$BDOUT = \frac{\text{number of independent commissioners}}{\text{total number of board commissioners}} \dots \dots \dots (3)$$

Panel data regression analysis is used because the research data is a combination of cross-sectional and time-series data. The panel data regression equation is as follows:

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Where:

FFS _{it}	= Fraudulent financial statement
AUT _{it}	= Audit Tenure
CEOEDU _{it}	= CEO Education
BDOU _{it}	= Ineffective Monitoring
β_0	= Constant
$\beta_1 \beta_2 \beta_3$	= Regression coefficients
ε_{it}	= Error term

RESULTS AND DISCUSSION

Based on the population used in this study, which consists of state-owned enterprises (SOEs) listed on the Indonesia Stock Exchange for the period 2021-2023, a total of 24 companies were identified. However, in accordance with the purposive sampling technique, 19 companies were selected, resulting in a research sample of 57 observation data points.

Table 2. Results of Descriptive Statistical Analysis

	FFS	AUT	CEOEDU	BDOUT
Mean	0.333	1.772	2.737	0.481
Median	0.000	2.000	3.000	0.500
Maximum	1.000	3.000	3.000	0.667
Minimum	0.000	1.000	2.000	0.285
Std. Deviation	0.475	0.779	0.444	0.114
Observations	57	57	57	57

Source: Research Data, 2025

The results of the descriptive statistical analysis in Table 2 indicate that approximately 33% of the companies in the sample are identified as having engaged in fraudulent financial reporting, as evidenced by the binary data, which exhibit substantial variation with a standard deviation of 0.4756. The average audit tenure is nearly two years, showing moderate variability across firms. The majority of CEOs possess a master's or doctoral degree, suggesting a relatively homogeneous distribution in educational attainment. The proportion of ineffective monitoring, proxied by the ratio of independent commissioners, also differs among companies, although the overall level of variation remains relatively low.

Table 3. Results of Classical Assumption Tests

	Criteria	Results	Conclusion
Normality Test (Jarque-Bera Test)	P-value > 0.05	Probability Value = 0.056	The residual data in this study are normally distributed.
Multicollinearity Test	VIF Value < 10	AUT = 1.044 CEOEDU = 1.019 BDOUT = 1.030	There is no indication of multicollinearity among the independent variables in the regression model.
Heteroscedasticity Test (Breusch-Pagan Test)	Probability Value > 0.05	Prob. Chi-Square = 0.4711	The regression model is free from heteroscedasticity.
Autocorrelation Test (LM Test)	Prob. Chi-Square > 0.05	Prob. Chi-Square = 0.428	The regression model is also free from autocorrelation.

Source: Research Data, 2025

The results of the classical assumption test in Table 3 show that the research data passed all four classical assumption tests. Furthermore, three model selection tests were applied to determine the appropriate panel data regression model.

Table 4. Chow Test

Redundant Fixed Effects Tests	Test cross-section fixed effects	Statistic	d.f.	Prob.
		1.203	(18.35)	0.310
		27.453	18	0.070

Source: Research Data, 2025

The results of the model selection test using the Chow test, as presented in Table 4, show a cross-section F probability value of 0,3105 > 0,05 and a cross-section chi-square probability value of 0,0709 > 0,05. Based on these probability

values, the common effect model is deemed appropriate for this study. Subsequently, the Hausman test was conducted.

Table 5 Hausman Test

Correlated Random Effects - Hausman Tests			
Test cross-section random effects			
Test Summary	Chi-Sq Statistic	Chi-Sq d.f.	Prob.
Cross-section random	4.615	3	0.202

Source: Research Data, 2025

The results of the model selection test using the Hausman test, as shown in Table 5, indicate a probability value of $0,2022 > 0,05$. Therefore, the random effect model is more appropriate to use, as there is no significant correlation between individual effects and the independent variables. The final model selection test is the Breusch-Pagan test using the Lagrange Multiplier (LM) Test.

Table 6 Breusch-Pagan Test

Lagrange Multiplier Test for Random Effects			
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.004 (0.950)	0.452 (0.501)	0.456 (0.499)

Source: Research Data, 2025

The final model selection test, presented in Table 6, is the Breusch-Pagan test. The results show a cross-section Breusch-Pagan probability value of $0.9504 > 0.05$. This indicates that the common effect model is the most appropriate model to be applied in the hypothesis testing of this study.

Table 7 Panel Data Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.873	0.485	1.798	0.078
AUT	0.055	0.079	0.702	0.486
CEOEDU	-0.363	0.136	-2.655	0.010
BDOUT	0.740	0.533	1.386	0.171
R-squared	0.149	Mean dependent var		0.334
Adj. R-squared	0.101	S.D. dependent var		0.476
S.E. regression	0.451	Akaike info criterion		1.312
Sum sq. resid	10.780	Schwarz criterion		1.456
Log likelihood	-33.417	Hannan-Quinn criter		1.369
F-statistic	3.091	Durbin-Watson stat		2.048
Prob (F-statistic)	0.035			

Source: Research Data, 2025

The panel data regression equation is as follows:

$$EES = 0.873 + 0.055 \text{ ALIT} - 0.363 \text{ CEOEDU} + 0.740 \text{ BDOIT} \quad (5)$$

The regression result of audit tenure (AUT) on fraudulent financial statements (FFS) shows a probability value of $0.486 > 0.05$, with a coefficient of 0.055. This finding indicates that H1 is rejected, as audit tenure does not have a significant effect on fraudulent financial statements. A long-term relationship between the auditor and client does not necessarily compromise auditor objectivity. On the contrary, extended audit engagements may enhance the auditor's understanding of the company's financial and operational context, thus facilitating more effective fraud detection (Adhitama et al., 2023; Handoko et al.,

2020). Auditors with long-standing client relationships may be more adept at identifying anomalies due to their familiarity with company-specific practices and internal controls (Nejad et al., 2024; Suryani et al., 2023). Moreover, auditor rotation regulations serve to mitigate potential risks associated with prolonged engagements (Revaldi & Simbolon, 2023). From the perspective of agency theory and fraud theory, potential conflicts of interest arising from extended tenures can be mitigated if companies enforce sound governance practices and auditors uphold professional ethical standards.

The regression result of CEO education (CEOEDU) on fraudulent financial statements (FFS) shows a probability value of $0.0105 < 0.05$ and a coefficient of -0.363217 . This result indicates that CEO education has a negative effect on fraudulent financial statements, and thus H2 is rejected. A higher level of CEO education appears to reduce the likelihood of financial statement fraud (Aprilia et al., 2022; Sanjaya et al., 2021; Saputra et al., 2021). Educated leaders are more likely to uphold ethical business conduct and better understand the legal and reputational consequences of fraudulent behavior (Kusumosari & Solikhah, 2021; Sihombing & Eirene Panggulu, 2022; Wangi et al., 2024). From a fraud theory perspective, well-educated CEOs may possess a stronger moral compass, thereby reducing their rationalization for unethical behavior. In line with agency theory, competent and highly educated executives are better equipped to align managerial decisions with shareholder interests, thereby strengthening accountability and decision quality.

The regression result of ineffective monitoring (BDOUT) on fraudulent financial statements (FFS) shows a probability value of $0.1715 > 0.05$, with a coefficient of 0.740101 . This finding indicates that H3 is rejected, as ineffective monitoring does not have a significant effect on fraudulent financial statements. The presence of independent commissioners alone does not significantly explain the occurrence of fraud in financial reporting (Fadhilah et al., 2022; Ndruru & Hutapea, 2022; Rahayu & Susilowati, 2025). The effectiveness of monitoring depends not only on governance structures but also on the quality of their implementation (Kasih & Susilowati, 2024; Pramurza, 2024; Yustikasari & Sari, 2024). According to agency theory, independent commissioners are expected to oversee management to ensure alignment with shareholder interests. From the fraud theory perspective, ineffective monitoring creates opportunities for fraud when oversight is inadequate and not reinforced by strong integrity and commitment across all levels of governance.

Simultaneously, audit tenure, CEO education, and ineffective monitoring collectively have a significant influence on fraudulent financial statements. Financial statement fraud typically results not from a single determinant but from a combination of multiple interrelated factors. The coefficient of determination (R^2) is 0.148930 , or 14.89% , indicating that these three variables collectively explain a modest proportion of the variance in fraudulent financial statements, while the remaining 85.11% is attributable to other factors not examined in this study. Despite its relatively limited explanatory power, the R^2 value still suggests a meaningful contribution from the selected variables.

CONCLUSION

The results of this study reveal that audit tenure and ineffective monitoring do not significantly influence fraudulent financial statements. In contrast, CEO education has a significant negative effect on the likelihood of financial statement fraud. However, when considered simultaneously, the three independent variables exhibit a significant joint effect on fraudulent financial reporting. These findings underscore that fraudulent financial statements are not attributable to a single determinant. Rather, such fraud emerges from the interplay of multiple structural and individual-level factors that collectively shape the organization's ethical and control environment.

This study is subject to several limitations. First, the scope of independent variables is restricted to only three factors, potentially omitting other relevant influences. Second, the sample is limited to non-financial state-owned enterprises (SOEs) listed on the Indonesia Stock Exchange over a three-year observation period. Future research is encouraged to broaden the scope by incorporating additional sectors, extending the observation period, and integrating other explanatory variables such as financial pressure, internal audit effectiveness, or governance mechanisms to better capture the complexity of factors influencing fraudulent financial reporting.

REFERENSI

ACFE. (2024). *Occupational Fraud 2024: A Report to the Nations*. <https://legacy.acfe.com/report-to-the-nations/2024/>

ACFE Indonesia. (2020). *SURVEI FRAUD INDONESIA*.

Adhitama, F., Khamisah, N., Farhan, M., & Setiawan, R. (2023). Pengaruh Hexagon Fraud dan Audit Tenure Terhadap Fraudulent Financial Reporting. *Reviu Akuntansi Dan Bisnis Indonesia*, 7(2), 407–420. <https://doi.org/10.18196/rabin.v7i2.18155>

Adriansyah, R., & Budiwitjaksono, G. S. (2024). Analisis Pengaruh Opini Going Concern Dan Audit Tenure Terhadap Hasil Kualitas Audit. *COSTING: Journal of Economic, Business and Accounting*, 7(4).

Aprilia, R., Syarifuddin, S., & Haerial, H. (2022). Analisis Kecurangan Laporan Keuangan melalui Fraud Hexagon. *Akrual: Jurnal Bisnis Dan Akuntansi Kontemporer*, 15(2), 143–151. <https://doi.org/10.26487/akrual.v15i2.21681>

Aprilia, S. R. N. A., & Furqani, A. (2021). Deteksi Kecurangan Laporan Keuangan Dengan Metode Fraud Diamond Pada Perusahaan Jasa. *Journal of Accounting And Financial Issue*, 2(2), 1–11.

Apriyani, N. K., & Ritonga, F. (2020). Nature Of Industry Dan Ineffective Monitoring Sebagai Determinan Terjadinya Fraud Dalam Penyajian Laporan Keuangan. *Jurnal Sains Manajemen & Akuntansi*, 11(2), 1–8. <https://doi.org/http://dx.doi.org/10.37151/jsma.v11i2.8>

Batara, I. W. D., & Budiwitjaksono, G. S. (2025). Analisis Strategi Bisnis Dalam Memprediksi Kecurangan Laporan Keuangan Pada Perusahaan Konstruksi Yang Terdaftar Di BEI 2019-2023. *Jurnal Akuntansi*, 11(1), 165–3.

Beneish, M. D., Lee, C. M. C., & Nichols, D. C. (2012). *Fraud Detection and Expected Returns*. 1–53.

Budiwitjaksono, G. S., Munari, M., & Suryaningrum, D. H. (2024). Critical Review of XBRL Financial Reporting: Perspective Pancasila as One of Indonesia's National Defense Values. *Journal of Accounting and Strategic Finance*, 7(1), 181–199. <https://doi.org/10.33005/jasf.v7i1.511>

Cressey, D. R. (1953). Other Peoples's Money: A Study In The Social Psychology Of Embezzlement. *The Journal of Criminal Law, Criminology, and Police Science*, 45(4). <https://doi.org/https://doi.org/10.2307/1140029>

Fadhilah, N. H. K., Rukayah, S., & Heliani. (2022). Fraud Pentagon Dalam Mendeteksi Fraudulent Financial Reporting Pada Perusahaan BUMN. *AFRE Accounting and Financial Review*, 5(3), 240–249. <https://doi.org/10.26905/afr.v5i3.7966>

Handayani, M. (2023). Pengaruh Fraud Triangle Terhadap Kecurangan Laporan Keuangan (Studi Empiris Pada Perusahaan Badan Usaha Milik Negara Yang Terdaftar Di Bursa Efek Indonesia Periode 2017-2020). *Jurnal Ilmiah Ekonomi Dan Bisnis Universitas Multi Data Palembang*, 13(1), 169–176. <https://doi.org/https://doi.org/10.35957//forbiswira.v13i1.6045>

Handoko, B. L., Armand, W. K., Marpaung, A. T., & Maria, S. Y. (2020). Effect of financial liquidity, audit rotation and audit tenure on financial statement fraud. *International Journal of Engineering and Advanced Technology*, 9(1), 3326–3331. <https://doi.org/10.35940/ijeat.A1487.109119>

Haqq, A. P. N. A., & Budiwitjaksono, G. S. (2020). Fraud Pentagon for Detecting Financial Statement Fraud. *Journal of Economics, Business, & Accountancy Ventura*, 22(3), 319–332. <https://doi.org/10.14414/jebav.v22i3.1788>

Idris, M. (2023, June 7). *Geger Dugaan Wika dan Waskita Manipulasi Laporan Keuangan*. Https://Money.Kompas.Com/Read/2023/06/07/091635026/Geger-Dugaan-Wika-Dan-Waskita-Manipulasi-Laporan-Keuangan#google_vignette.

Jensen, M. C., & Meckling, W. H. (1976). Theory Of The Firm: Managerial Behavior, Agency Cost And Ownership Structure. In *Journal of Financial Economics* (Vol. 3). Q North-Holland Publishing Company.

Kasih, V. A., & Susilowati, D. (2024). The Influence Of The Fraud Hexagon Model And Sales Growth On Fraudulent Financial Statement. *International Student Conference on Accounting and Business*, 3. <https://tradingeconomics.com/commodity/crude-oil>

Khatun, A., Ghosh, R., & Kabir, S. (2022). Earnings manipulation behavior in the banking industry of Bangladesh: the strategical implication of Beneish M-score model. *Arab Gulf Journal of Scientific Research*, 40(3), 302–328. <https://doi.org/10.1108/AGJSR-03-2022-0001>

Kinaryosih, N. C. R., Budiwitjaksono, G. S., & Wilasittha, A. A. (2024). Factors Affecting Accounting Conservatism with Litigation Risk as a Moderator in Consumer Non-Cyclicals Companies Listed on IDX. *Moneter: Jurnal Keuangan Dan Perbankan*, 12(3), 635–644. <http://ejournal2.uika-bogor.ac.id/index.php/MONETER>

Kusumosari, L., & Solikhah, B. (2021). Analisis Kecurangan Laporan Keuangan Melalui Fraud Hexagon Theory. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, 4(3), 753–767. <https://doi.org/10.32670/fairvalue.v4i3.735>

Lubis, D. K. M., & Budiwitjaksono, G. S. (2023). Analisis Pengendalian Internal, Kesadaran Anti-Fraud, Dan Pengetahuan Fraud Terhadap Pencegahan Fraud. *Jembura Economic Education Journal*, 5(1), 1-10. <https://ejurnal.ung.ac.id/index.php/jej/index>

Martha, R., & Wenny, C. D. (2023). Pengaruh Audit Tenure, Auditor Switching, Dan Ukuran KAP Terhadap Kecurangan Laporan Keuangan (Studi Empiris Perusahaan Manufaktur Yang Terdaftar DiBursa Efek Indonesia Tahun 2019-2021). *Publikasi Riset Mahasiswa Akuntansi (PRIMA)*, 4, 110-118.

Mukaromah, I., & Budiwitjaksono, G. S. (2021). Fraud Hexagon Theory dalam Mendeteksi Kecurangan Laporan Keuangan pada Perbankan yang Terdaftar di Bursa Efek Indonesia Tahun 2015-2019. *Jurnal Ilmiah Komputerisasi Akuntansi*, 14(1), 61-72. <http://journal.stekom.ac.id/index.php/kompak?page=61>

Nasir, N. A., Wawo, A., & Anwar, P. H. (2021). Pengaruh Audit Tenure Dan Tekanan Klien Terhadap Independensi Auditor Dengan Komitmen Profesional Sebagai Variabel Moderasi. *Islamic Accounting and Finance Review*, 2(1), 194-204. <https://doi.org/https://doi.org/10.24252/isafir.v2i2.26008>

Ndruru, S. A. O., & Hutaapea, J. Y. (2022). Pengaruh Ineffective Monitoring, Financial Stability, Dan Corporate Governance Terhadap Financial Statement Fraud. *EKONOMIS: Jurnal Ekonomi Dan Bisnis*, 15(2), 131-151.

Nejad, M. Y., Khan, A. S., & Othman, J. (2024). A panel data analysis of the effect of audit quality on financial statement fraud. *Asian Journal of Accounting Research*, 9(4), 422-445. <https://doi.org/10.1108/AJAR-04-2023-0112>

Nuryana, Y., Erfandi, E., & Indriani, Y. P. (2024). The Influence Of Financial Stability And Ineffective Monitoring On Financial Statement Fraud In Manufacturing Companies. *Dinamika Akuntansi Keuangan Dan Perbankan*, 13(2), 73-90.

Pitaloka, G. G., & Budiwitjaksono, G. S. (2022). Analisis Rasio Keuangan Terhadap Financial Distress Saat Pandemi Pada Perusahaan Sub Sektor Transportasi Yang Terdapat Di BEI Tahun 2017-2020. *JIMEA: Jurnal Ilmiah Manajemen, Ekonomi, Dana Akuntansi*, 684-696.

Pramurza, D. (2024). Pengaruh External Pressure, Financial Target, Ineffective Monitoring dan Rationalization terhadap Financial Statement Fraud pada Industri Food And Beverages yang Terdaftar di BEI Tahun 2020-2022. *AKUNTANSI 45: Jurnal Ilmiah Akuntansi*, 5(2), 627-642.

Pratiwi, D. E., & Rohman, A. (2021). Pengaruh Independensi, Skeptisme Profesional, Pengalaman Audit, Kualitas Audit, Audit Tenure, Dan Prosedur Audit Terhadap Tanggung Jawab Auditor Dalam Mendeteksi Kecurangan Pada Laporan Keuangan. *DIPONEGORO JOURNAL OF ACCOUNTING*, 10(2), 1-15.

Probohudono, A. N., Lubis, A. T., Nahartyo, E., & Arifah, S. (2022). Governance structure and the tendency to do financial statements fraud. *Jurnal Akuntansi Dan Auditing Indonesia*, 26(1), 54-64. <https://doi.org/10.20885/jaai.vol26.i>

Putri, A. P., Nabila, N., Augustin, V., & Fellia, F. (2021). Audit Tenure, Auditor Experience, Independency, And Task Complexity On Audit Jugdement.

Jurnal Riset Akuntansi Kontemporer, 13(1), 7-12.
<https://doi.org/10.23969/jrak.v13i1.3506>

Putri, Y. E. P., & Suryani, E. (2024). Determinan Faktor-Faktor Capability sebagai Perspektif Fraud Diamond terhadap Kecurangan Laporan Keuangan. *Owner: Riset & Jurnal Akuntansi*, 8(1), 402-413.
<https://doi.org/10.33395/owner.v8i1.1880>

Rahayu, I. Y., & Susilowati, E. (2025). Presepsi Teori Fraud Hexagon Terhadap Fraudulent Financial Statement. *Jambura Economic Education Journal*, 7(1), 373-389. <https://ejurnal.ung.ac.id/index.php/jej/index>

Reskino, R., & Bilkis, M. S. (2022). Apakah Good Corporate Governance Memoderasi Hubungan Kecenderungan Kecurangan Manajemen terhadap Fraudulent Financial Statement? *Jurnal Kajian Akuntansi*, 6(2), 280.
<https://doi.org/10.33603/jka.v6i2.7471>

Revaldi, N. W., & Simbolon, R. F. (2023). Pengaruh Kualitas Audit, Audit Tenure, dan Nature of Industry terhadap Kecurangan Laporan Keuangan pada Perusahaan Infrastruktur yang Terdaftar di BEI Periode. *Jurnal Ilmiah Akuntansi Dan Finansial Indonesia*, 6(2).

Sandi, F. (2020, January 11). *Erick Thohir Akhirnya Ungkap Modus BUMN Vermak Lapkeu, Duh!*
<Https://Www.Cnbcindonesia.Com/Market/20200111122513-17-129350/Erick-Thohir-Akhirnya-Ungkap-Modus-Bumn-Vermak-Lapkeu-Duh>.

Sanjaya, I., Suryanto, & Sari, G. P. (2021). PENGARUH KEPEMILIKAN SAHAM EKSEKUTIF, CEO EDUCATION DAN PERGANTIAN AUDITOR TERHADAP KECURANGAN LAPORAN KEUANGAN PADA PERUSAHAAN BUMN (STUDI EMPIRIS PADA PERUSAHAAN BUMN YANG TERDAFTAR DI BEI). *Jurnal Akuntansi AKTIVA*, 2(1), 87-94.

Saputra, F. W., Maranata, B. H., Kenny, S., & Raharjo, S. (2021). Pengaruh Pendidikan Dan Kepemilikan Saham Dewan Komisaris Dalam Kemungkinan Terjadinya Kecurangan Laporan Keuangan. *ARIMBI (Applied Research in Management and Business)*, 1(1), 15-20.
<https://doi.org/10.53416/arimbi.v1i1.12>

Setyaningrum, U. A., & Budiwitjaksono, G. S. (2024). Pengaruh Konservatisme Akuntansi Dan Investment Opportunity Set Terhadap Kualitas Laba Perusahaan Manufaktur Yang Terdaftar Di BEI Tahun 2020-2022. *COSTING: Journal of Economic, Business and Accounting*, 7.

Sihombing, T., & Eirene Panggulu, G. (2022). Fraud Hexagon Theory And Fraudulent Financial Statement In IT Industry In Asean. *Jurnal Reviu Akuntansi Dan Keuangan*, 12(3), 524-544.
<https://doi.org/10.22219/jrak.v12i3.23334>

Sihombing, T., & Panggulu, G. E. (2022). Fraud Hexagon Theory And Fraudulent Financial Statement In IT Industry In Asean. *Jurnal Reviu Akuntansi Dan Keuangan*, 12(3), 524-544. <https://doi.org/10.22219/jrak.v12i3.23334>

Sihotang, M., & Budiwitjaksono, G. S. (2024). Pengaruh Pengungkapan Corporate Social Responsibility terhadap Manajemen Laba: Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2017-2021. *Al-Kharaj*:

Jurnal Ekonomi, Keuangan & Bisnis Syariah, 6(1), 22–37.
<https://doi.org/10.47467/alkharaj.v6i1.201>

Suryani, E., Winarningsih, S., Avianti, I., Sofia, P., & Dewi, N. (2023). Does Audit Firm Size and Audit Tenure Influence Fraudulent Financial Statements? In *AABFJ* (Vol. 17, Issue 2).

Taruno, M. A. P., & Budiwitjaksono, G. S. (2025). Pengungkapan Corporate Social Responsibility dan Audit Committee Expertise Terhadap Integritas Laporan Keuangan. *JAMBURA ECONOMIC EDUCATION JOURNAL*, 7(1).
<https://ejurnal.ung.ac.id/index.php/jej/index>

Wangi, R. S. L., Setiono, H., & Isnaini, N. F. (2024). Pengaruh Elemen Fraud Hexagon dan Karakteristik CEO terhadap Financial Statement Fraud. *Anggaran: Jurnal Publikasi Ekonomi Dan Akuntansi*, 2(3), 554–566.
<https://doi.org/10.61132/anggaran.v2i3.851>

Wiratama, P., & Budiwitjaksono, G. S. (2021). Faktor-Faktor Yang Mempengaruhi Manajemen Laba Pada Perusahaan Badan Usaha Milik Negara (BUMN) Yang Terdaftar Pada Bursa Efek Indonesia (BEI) Tahun 2017-2019. *Relasi Jurnal Ekonomi*, 17(1), 92–121.

Yustikasari, Y., & Sari, Y. P. (2024). The Influence Of Financial Stability, Ineffective Monitoring, Change In Auditor, Change In Director, And CEO Picture On Fraudulent Financial Statement. *Monex-Journal of Accounting Research*, 13(01).