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Financial Statement Fraud and the Fraud Pentagon Theory: Evidence from Indonesia's Public Sector

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Abstract

This study investigates the determinants of financial statement fraud in Indonesian state-owned enterprises (SOEs) using the Fraud Pentagon Theory, which extends the traditional fraud triangle by incorporating five dimensions: pressure, opportunity, rationalization, capability, and arrogance. Each element is proxied by financial stability, the proportion of independent commissioners, auditor turnover, board of directors turnover, and CEO profile picture. The analysis is based on panel data from 25 SOEs listed on the Indonesia Stock Exchange (IDX) during 2019–2023, with fraud measured using the F-Score model. Panel regression results show that financial stability significantly increases the likelihood of fraudulent reporting, indicating that financial pressure is a key driver of earnings manipulation. In contrast, the other variables do not exhibit significant effects, suggesting that conventional governance and image-based proxies may have limited predictive value in this context. These findings offer empirical support for the Fraud Pentagon framework in the public sector and highlight the need for more targeted fraud detection strategies beyond traditional governance indicators.

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Introduction

The Association of Certified Fraud Examiners (ACFE) (2022) reports from 2014 to 2022 consistently highlight financial statement fraud as one of the most damaging and persistent forms of corporate misconduct globally, including in Indonesia. Throughout this period, Indonesia has ranked among the top three countries in the Asia-Pacific region for reported fraud cases. Notably, in 2020, Indonesia recorded the highest number of cases (36), and in 2022, it remained within the top three, with 23 reported incidents.

The ACFE Indonesia (2019) report classifies fraud into three main categories: asset misappropriation, corruption, and financial statement fraud. Although less frequent than other types, financial statement fraud results in the highest financial losses, underscoring its profound implications for investor confidence, corporate stability, and the integrity of financial reporting.

This concern is particularly evident in several high-profile cases involving Indonesian state-owned enterprises (SOEs), which are expected to uphold exemplary governance standards due to their strategic national roles and government oversight. For instance, PT Garuda Indonesia Tbk reported IDR 3.5 trillion in revenue that was, in fact, accounts receivable. Similarly, PT Asuransi Jiwasraya, in early 2020, was embroiled in misreporting linked to irrational investment practices and internal audit findings. Other cases include PT Waskita Karya Tbk and PT Wijaya Karya Tbk, which reported profits across several years despite consistently negative cash flows—raising concerns about accounting integrity and financial transparency.

Financial statement fraud is the intentional misrepresentation or omission of material financial data, manipulation of accounting records, or falsifying transactions to distort a company's financial performance and condition (Rachman et al., 2023). Such fraud's increasing complexity and material consequences highlight the need for deeper empirical investigation into its underlying drivers, especially in public-sector organizations.

From a theoretical perspective, much of the existing literature has relied on the Fraud Triangle Theory Cressey (1953), which identifies pressure, opportunity, and rationalization as the key factors influencing fraudulent behavior. However, this model has been criticized for its limited consideration of personal characteristics and positional authority. In response, scholars have developed more nuanced frameworks, including the Fraud Diamond Theory, Wolfe, D., & Hermanson (2004) and, more recently, the Fraud Pentagon Theory Crowe Horwath (2012), which introduces two additional elements: capability and arrogance.

Despite its conceptual richness, empirical applications of the Fraud Pentagon Theory remain scarce, particularly in emerging markets such as Indonesia and among SOEs that operate under unique governance and ownership structures.

This study examines the determinants of financial statement fraud using the Fraud Pentagon Theory as a conceptual lens. The five dimensions—pressure, opportunity, rationalization, capability, and arrogance—are operationalized using measurable proxies drawn from prior research: Pressure is proxied by financial stability, Opportunity by the proportion of independent commissioners, Rationalization by auditor turnover, Capability by changes in the board of directors, and Arrogance by the presence of the CEO's photograph in the annual report. The study also incorporates relevant control variables and focuses on a sample of Indonesian SOEs listed on the Indonesia Stock Exchange (IDX) over the 2019–2023 period.

This research contributes to the literature in several key ways. First, from a theoretical perspective, it extends the application of the Fraud Pentagon Theory to the underexplored context of state-owned enterprises in a developing economy. Empirically testing all five fraud dimensions using context-sensitive indicators advances our understanding of fraud dynamics under public ownership. Second, from a methodological standpoint, the study introduces innovative proxies—including CEO photographs to reflect arrogance—

offering new insights into the behavioral and psychological dimensions of fraud. Third, regarding practical relevance, the findings are expected to inform regulators, auditors, and policy-makers in developing risk-based fraud detection and prevention strategies, particularly in enhancing corporate governance frameworks for state-owned entities.

Hypotheses Development

Research on financial statement fraud has evolved from simple theoretical models into more comprehensive and multifaceted frameworks. The foundational Fraud Triangle Theory, introduced by Cressey (1953), attributes fraud to three core elements: pressure, opportunity, and rationalization. This model was later expanded by Wolfe and Hermanson (2004) through the Fraud Diamond Theory, which added capability as a fourth element. Further refinement came from Crowe Horwath (2012) with the development of the Fraud Pentagon Theory, which introduced a fifth dimension—arrogance. While Vousinas (2019) proposed an additional factor, collusion, this study focuses on the five central components of the Fraud Pentagon: pressure, opportunity, rationalization, capability, and arrogance.

The Effect of Financial Stability on Financial Statement Fraud

Within the Fraud Pentagon framework, pressure refers to the internal or external forces that compel individuals or corporate management to engage in fraudulent behavior—often in an attempt to meet performance expectations or preserve organizational legitimacy. One of the most prevalent manifestations of such pressure is financial instability.

Financial stability reflects a firm's ability to maintain consistent and healthy financial conditions over time. A decline in key financial indicators—such as asset value, profitability, or liquidity—can intensify managerial pressure to artificially portray financial strength (Situngkir & Triyanto, 2020). Under such conditions, management may resort to financial misrepresentation, such as revenue overstatements or expense deferrals, to maintain investor trust and access to external funding. Empirical studies by Aulia and Budiwitjaksono (2020); Koharudin and Januarti (2021); and Situngkir and Triyanto (2020) provide evidence that financial instability significantly increases the likelihood of fraudulent reporting.

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

The Effect of Independent Commissioners on Financial Statement Fraud

Opportunity refers to the structural weaknesses or governance lapses that create favorable conditions for fraud to occur without detection. Among the most critical components of corporate governance affecting this dimension is the effectiveness of independent commissioners.

Independent commissioners are expected to monitor management, enforce accountability, and ensure the transparency of financial disclosures. While their presence theoretically reduces fraud risk, empirical evidence suggests that ineffective or symbolic board oversight can create a governance vacuum, increasing fraudulent activity opportunities (Wibowo & Putra, 2023). In companies with high operational complexity or extensive product differentiation, the monitoring role of independent commissioners may be diluted, limiting their ability to detect fraud. Research by Harman and Bernawati (2020), Sawaka (2020), and Rukmana (2021) indicates that the presence of independent commissioners is not always associated with reduced fraud risk and, under certain circumstances, may even be positively associated with fraudulent activity.

H2: *Independent commissioners have a positive effect on financial statement fraud.*

The Effect of Auditor Turnover on Financial Statement Fraud

Rationalization involves the psychological or moral justification individuals employ to legitimize unethical actions. Within the corporate context, frequent auditor turnover may signal management's attempt to rationalize fraud by undermining consistent oversight or avoiding detection (Sawaka & Hiwa, 2020).

Auditor changes may not always stem from dissatisfaction with audit quality; instead, they may be strategically implemented to eliminate prior audit trails, secure more lenient auditors, or obscure existing financial irregularities (Koharudin & Januarti, 2021). These justifications enable management to validate fraudulent behavior internally as necessary or reasonable. Studies by Farida et al. (2022), Hastuti et al. (2023), and Sawaka and Hiwa (2020) consistently demonstrate a positive association between auditor turnover and the incidence of financial statement fraud, particularly in environments marked by heightened reputational risk.

H3: *Auditor turnover has a positive effect on financial statement fraud.*

The Effect of Board of Directors Turnover on Financial Statement Fraud

The capability element pertains to the skill, authority, and organizational knowledge that enable individuals to commit fraud and conceal it effectively. Long-tenured executives with deep insights into internal processes are often more capable of exploiting control weaknesses.

Conversely, frequent board of directors turnover may serve as a governance mechanism that reduces the risk of fraud by disrupting accumulated insider knowledge and weakening the ability to manipulate systems (Permatasari & Laila, 2021). New directors may be less familiar with the company's vulnerabilities, diminishing their capacity to exploit systemic flaws. Rachman et al. (2023) observed that individuals responsible for significant fraud cases often held key leadership positions for extended periods. As such, director rotation may limit fraud potential by reducing long-term information asymmetries.

H4: *Board of directors turnover hurts financial statement fraud.*

The Effect of CEO Profile Picture on Financial Statement Fraud

The final component, arrogance, represents excessive confidence, ego, or a belief in one's invulnerability to governance mechanisms. It reflects the disposition of influential individuals who believe they are above accountability. An observable proxy for arrogance is the frequency or prominence of CEO profile pictures in annual reports. Narcissistic traits and self-promotional tendencies may drive CEOs who frequently display their image in corporate disclosures—factors associated with unethical decision-making and misreporting (Hidayah et al., 2019; Maryadi et al. 2020). Research by Budi Yanti et al. (2023) and Gansui et al. (2023) supports this perspective, revealing a positive relationship between the visual dominance of CEOs in public documents and the likelihood of financial statement fraud.

H5: *CEO profile picture has a positive effect on financial statement fraud.*

Methods

This study adopts a quantitative approach with a descriptive-verificative research design to examine the determinants of financial statement fraud in Indonesian state-owned enterprises (SOEs). The research utilizes secondary data collected through purposive sampling, drawing from publicly available annual reports published on the official websites of the respective companies and the Indonesia Stock Exchange (IDX). The observation period spans five fiscal years, from 2019 to 2023. Companies were selected based on specific criteria, including the completeness of annual report disclosures, the availability of relevant variables, and continuous listing status during the observation period.

Data analysis combines descriptive and inferential statistical techniques. The study employs panel data regression to examine the relationships between variables across both cross-sectional and time-series dimensions. Data were processed using EViews 12 software to ensure the robustness and reliability of the estimations. The dependent variable, financial statement fraud, is measured using the F-Score model introduced by Dechow et al. (2011), which integrates accrual quality and financial performance indicators to estimate the likelihood of earnings manipulation. This model has been widely applied in empirical fraud detection studies due to its predictive validity and ability to capture subtle distortions in reported earnings.

Table 1. Variable measurement

Variable	code	Measurement
		Dependent Variable
Financial Statement Fraud	FLK	$F - Score = Accrual\ Quality + Financial\ Performance$ $RSST\ Accrual = \frac{\Delta WC + \Delta NCO + \Delta FIN}{Average\ Total\ Assets}$ (*Working Capital) = (Current Assets – Cash Liability)* *NCO (Non Current Operating) = (Total assets – Current Assets – Investment and advances) – (Total liabilities – Current liabilities – Long term debt)* *FIN (Financial Accrual = (Total Investment – Total Liabilities)* *Average Total assets = (Beginning Total Assets + End Total Assets)/2* Financial performance = *change in receivable + change in inventories + change in cash sales + change in earnings* $Change\ in\ receivables = \frac{\Delta Receivables}{Average\ Total\ Assets}$ $Change\ in\ inventories = \frac{\Delta inventories}{Average\ Total\ Assets}$ $Change\ in\ cash\ sales = \frac{\Delta Sales}{ASales\ (t)} - \frac{\Delta Receivables}{Receivables(t)}$ $Change\ in\ earnins = \frac{Earnings\ (t)}{Average\ Total\ Assets\ (t)} - \frac{Earnings\ (t-1)}{Average\ Total\ Assets\ (t-1)}$
		Independent Variables
Financial Stability	FS	$ACHANGE = \frac{Total\ Aset_{\ t} - Total\ Aset_{t-1}}{Total\ Aset_{t-1}}$
Independent Board of Commissioners	DKI	$INDEPT = \%\ independent\ commissioners$
Auditor turnover	PA	The replacement of auditors is measured by dummy variables, the replacement of auditors is given a value of 1 and a value of 0 if there is no change of auditor.
Change of directors	PD	The company changes the composition of its board of directors from the previous period, the value will be 1, but if there is no change, the value will be 0 according to the research carried out.
CEO *Profile Picture*	CPP	*Frequency of CEO's Picture* = Total CEO picture photos that appear in the annual report.
		Control Variable
Financial Target	FT	$ROA = \frac{Laba\ setelah\ pajak}{Total\ aset}$

In hypothesis testing, a panel data regression model is used to predict the influence of each independent variable on the dependent variable. The panel data regression model can be expressed with the following equation:

$$FLK = \beta 0 + \beta 1(FS) + \beta 2(DKI) + \beta 3(PA) + \beta 4(PD) + \beta 5(CPP) + \beta 6(FT) + e$$

Result and Discussion

Panel Data Regression Model Selection

The models used are the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Three factors determine the selection of the right model. The best model for panel data analysis is the best of the three approach models above: the Chow test, the Hausman test, and the Lagrange Multiplier test.

Model Selection

Testing	Result	Conclusion
Chow Test	Prob > 0.05	EMC
	Prob < 0.05	**FEM**
Hausman Test	Prob > 0.05	BRAKE
	Prob < 0.05	**FEM**

The results of the Chow test in Table 4.5 show that the probability value of the chi-square cross-section (0.00 < 0.05) is lower than the significance level, meaning that H0 is accepted, and the Fixed Effect Model (FEM) was selected as the temporary regression model in this study. To choose between the right Fixed Effect Model (FEM) and Random Effect Model (REM), additional testing is required using a thirst test. The results of the thirst test in Table 4.6 show a random cross-section probability value of 0.0160 < 0.05, showing that H0 is accepted as the selected Fixed Effect Model (FEM); this shows that the Fixed Effect Model (FEM) is the most appropriate model for this study.

The results of the determination coefficient (R2) test of the Adjusted R-squared value of 0.43, this value states that the percentage of financial stability, independent board of commissioners, auditor disputes, change of directors, and CEO profile picture can affect financial statement fraud by only 43%, other factors outside the variables studied explain the remaining 57%. Descriptive statistics determine how the data is distributed to justify the research results. The Fraud variable financial statement fraud financial statements show a range of the lowest value of 0.12 and the highest value of 3.09. The average value of financial statement fraud, 1.01, is close to the lowest value of 0.12, which shows that most SOE companies do not commit financial statement fraud. A standard deviation value of 1.04, higher than the average of 1.01, indicates that the data spread widely. The financial stability variable shows the highest value range of 1.98 and the lowest value of 0.04. An average value of financial stability of 0.38 indicates that the average value is close to the lowest value, which indicates that the company has a relatively small asset change value. A standard deviation value of 0.27, smaller than the average, indicates that the data distribution is not widely dispersed. The variables of the independent board of commissioners showed the highest score of 2.23 and the lowest score of 1.00. The average score of the Independent Board of Commissioners is 1.59, which is close to the lowest value, meaning that the Independent Board of Commissioners has a small percentage. The standard deviation value of 0.30 indicates that it is smaller than the average value, meaning the data distribution is not widely dispersed. The auditor turnover variable showed the highest value of 1.00 and the lowest value of 0.00 with an average value of 0.74, which is close to the highest value, indicating auditor turnover occurring every year and showing that state-owned companies have a reasonably high tendency to change auditors. A standard deviation value of 0.438, smaller than the average, indicates that the data distribution is not widely dispersed.

The variable Turnover of directors shows the highest value of 1.00 and the lowest value of 0.00 with an average value of 0.71, indicating that the average value is close to the highest value, which means that the company has a reasonably high tendency to change directors. A standard deviation of 0.919, smaller than the average value, indicates that the data is not widely dispersed. The CEO profile picture variable shows the highest value of 6.00. A low of 2.00 with an average value of 3.18 indicates that the average value is close to the middle value, which means that most companies have relatively high and low CEO profile picture ratings. A standard deviation value of 0.919, smaller than the mean value, indicates that the data distribution is not widely dispersed. The financial control variable of the target shows the highest value of 0.77 and the lowest of 0.01, with the average value of 0.18, indicating the average value is close to the lowest value, which means that most of the company has not reached its financial targets. A standard deviation value of 0.14, smaller than the average value, indicates that the data distribution is not widely dispersed.

Table 1 Descriptive Statistics

	FLK	FS	DKI	PA	PD	CPP	FT
Mean	1,01	0,38	1,50	0,74	0,71	3,18	0,18
Median	0,98	0,31	1,48	1,00	1,00	3,00	0,14
Maximum	3,09	1,98	2,23	1,00	1,00	6,00	0,77
Minimum	0,12	0,04	1,00	0,00	0,00	2,00	0,01
Std, Dev,	0,45	0,27	0,22	0,43	0,45	0,91	0,14
Adjusted R- Square	0,43						

Source: Data processed Eviews, 2024

Table 2 Results of the panel data regression

Variable	Coefficient	t-Statistic	Prob	Sig.
C	0,456	1,247	0,2154	-
Financial Stability	0,343	2,223	0,0285	Significant positives
Independent Board of Commissioners	0,124	0,632	0,5288	Insignificant
Auditor Turnover	0,005	0,069	0,9446	Insignificant
Change of Board of Directors	0,087	1,173	0,2434	Insignificant
CEO Profile Picture	0,030	0,554	0,5806	Insignificant
Financial Target	0,382	1,189	0,2373	Insignificant

Source: Data processed Eviews, 2024

The results of the regression panel data in Table 2 show the results of the hypothesis analysis in this study. The results of the first hypothesis partial test of this study tested the effect of financial stability on financial statement fraud; the probability value showed a lower result than the significance value (0.0285 < 0.05), which indicates that financial stability affects fraud financial statements, it can be concluded that the H1 hypothesis is acceptable. The results of the hypothesis test on the variables of the independent board of commissioners, the change of auditors, the change of directors, and the CEO profile picture, which acted as independent variables, did not affect financial statement fraud. In the variable of the independent board of commissioners, it shows that the t-statistic of the probability value of 0.9688 is more than the significance value of 0.05, the variable of auditor turnover of probability value of 0.5288 is greater than 0.05, the variable of change of directors has a probability value of 0.9446 greater than 0.05, and the CEO profile picture of the probability value shows a result of 0.5806 greater than 0.05. The hypothesis results of the control variable, namely that the financial target does not influence financial statement fraud, are shown with a probability value of 0.2373, greater than the significance value of 0.05.

Discussion

Financial Stability

The empirical findings reveal that financial stability significantly and positively influences the likelihood of financial statement fraud, thereby supporting Hypothesis 1. This result aligns with the pressure component of the Fraud Pentagon Theory Crowe Horwath (2012), which posits that financial stress acts as a catalyst for fraudulent behavior. Firms experiencing declines in asset growth or deteriorating financial indicators may prompt managers to respond to pressures from investors, creditors, or government stakeholders by engaging in financial misreporting to preserve the perception of organizational viability.

This finding also resonates with the tenets of agency theory Jensen and Meckling (1976), which explains that when the interests of managers and shareholders diverge, information asymmetry can incentivize opportunistic behavior. Under high pressure, managers may prioritize personal or political survival over transparency, particularly in SOEs where financial performance expectations are amplified. These results align with prior studies by Situngkir and Triyanto (2020), Sa'adah et al. (2022), and Salsabilla and Fitri (2023), all of which demonstrate that firms under financial duress are more prone to misrepresent their earnings to obscure operational weaknesses. Furthermore, Aulia and Budiwitjaksono (2020) emphasize that financial distress is often a precursor to earnings manipulation in SOEs, especially when compounded by political demands. These insights reinforce the argument that financial instability is a potent driver of fraudulent reporting in public-sector enterprises.

Independent Commissioners

Contrary to expectations, the proportion of independent commissioners does not significantly affect the likelihood of financial statement fraud, leading to the rejection of Hypothesis 2. This outcome diverges from the opportunity dimension of the Fraud Pentagon Theory, which suggests that weak internal controls and ineffective governance structures provide the conditions necessary for fraud to occur. While independent commissioners are designed to function as key management monitors, their effectiveness is often undermined in SOEs due to limited access to critical information, limited authority, and political entanglement.

This result is consistent with prior empirical findings by Koharudin and Januarti (2021) and Randa and Dwita (2024), who argue that the presence of independent commissioners in Indonesian firms often reflects symbolic compliance with regulatory requirements (e.g., POJK No. 33/POJK.04/2014), rather than genuine oversight capacity. Triyani et al. (2019) and Kurniawan et al. (2020) further highlight that independent commissioners in SOEs frequently lack autonomy due to overlapping roles and limited influence in boardroom decisions. These findings suggest that without institutional empowerment and capacity building, the formal presence of independent commissioners may not be sufficient to deter fraudulent behavior, particularly within state-affiliated governance environments.

Auditor Turnover

The analysis further reveals that auditor turnover does not significantly affect the incidence of financial statement fraud, resulting in the rejection of Hypothesis 3. Although the rationalization element of the Fraud Pentagon Theory posits that individuals may legitimize fraud through perceived necessity, the frequency of auditor changes in this study appears to reflect routine professional practice rather than strategic intent to conceal wrongdoing.

Empirical support for this interpretation can be found in studies by Ghaisani and Supatmi (2022) and Tanjung and Fitriani (2023), who observed that auditor changes in Indonesia are commonly driven by internal rotation policies, dissatisfaction with service quality, or regulatory mandates—such as the Ministry of Finance Regulation No. 17/PMK.01/2008 on mandatory auditor rotation. Particularly in SOEs, auditor changes are often administrative rather than manipulative. Wibowo and Putra (2023) emphasize that fraud prevention is more closely tied to auditor independence and audit tenure than turnover frequency alone. These insights

suggest that using auditor rotation as a proxy for rationalization may lack validity and that more nuanced indicators—such as the tone of internal communications or audit committee interventions—may better capture the ethical justifications underlying fraudulent acts.

Board of Directors Turnover

Hypothesis 4, which proposed a significant relationship between board of directors turnover and financial statement fraud, is also not supported. This finding challenges the assumption embedded in the Fraud Pentagon framework that newly appointed individuals, equipped with authority and insider knowledge, inherently possess the capability to commit fraud. Instead, the results suggest that capability does not necessarily translate into intent or opportunity for fraud, especially in organizations with established monitoring mechanisms.

This interpretation is supported by Wibowo and Putra (2023) and Ghaisani and Supatmi (2022), who argue that board changes in SOEs typically result from strategic realignments, government-driven reforms, or leadership restructuring initiatives rather than from covert attempts to facilitate fraudulent activity. In many instances, board turnover is a measure to enhance performance and governance, particularly under high public and political scrutiny. These findings indicate that capability, as a theoretical construct, should be interpreted not solely as the power to exploit systems but also as the capacity to enforce oversight and instill ethical standards. Thus, the presumption that new leadership necessarily increases fraud risk may not apply to highly regulated public institutions.

CEO Profile Picture

Lastly, the study finds no significant relationship between the presence of a CEO's profile picture in annual reports and the occurrence of financial statement fraud, leading to the rejection of Hypothesis 5. This outcome raises questions about the effectiveness of using CEO imagery as a proxy for arrogance, as conceptualized in the Fraud Pentagon Theory. While the theoretical foundation is supported by the upper echelons theory Hambrick and Mason (1984)—which posits that executive characteristics shape organizational outcomes—the empirical operationalization of arrogance through visual representation remains problematic.

As noted by Farida et al. (2022) and Irmawati (2022), the appearance of CEO photos in corporate reports may reflect corporate branding practices, industry norms, or investor communication strategies rather than individual personality traits. In the case of Indonesian SOEs, conservative reporting standards often limit the extent to which CEOs are visually featured, regardless of their disposition. Therefore, relying solely on CEO photographs to indicate narcissism or arrogance risks measurement error and undermines construct validity. Alternative proxies—such as excessive executive compensation, dominant speech patterns in public disclosures, or decision-making centrality—may offer more accurate reflections of executive hubris and its potential connection to fraud.

Conclusions and Recommendations

This study investigates the determinants of financial statement fraud by applying the Fraud Pentagon Theory, which integrates five dimensions of fraudulent behavior: pressure, opportunity, rationalization, capability, and arrogance. The empirical analysis draws on panel data from Indonesian state-owned enterprises (SOEs) listed on the Indonesia Stock Exchange (IDX) over 2019–2023. The findings reveal that financial stability significantly affects the likelihood of financial statement fraud, reinforcing the theoretical assertion that financial pressure is a key driver of earnings manipulation. Conversely, other variables—including the proportion of independent commissioners, auditor turnover, board of director turnover, and the presence of a CEO profile picture—are not significantly associated with fraudulent financial reporting. These results suggest that formal governance structures and surface-level indicators may be inadequate for detecting or mitigating fraud within SOEs.

The study contributes to the literature by offering novel empirical evidence on the limited predictive value of several commonly used governance proxies in the context of publicly owned enterprises. Theoretically, the findings challenge the prevailing assumption that mechanisms such as board independence and routine auditor rotation are inherently effective in reducing fraud risk. In practical terms, the results imply that regulatory bodies, audit committees, and policy-makers in SOEs should focus their oversight efforts on monitoring financial stressors and strengthening internal control systems rather than over-relying on formalistic compliance with governance codes. Enhanced transparency, timely access to decision-relevant information, and cultivating an ethical corporate culture may offer more effective, sustainable fraud prevention and detection strategies.

Despite its contributions, this study is not without limitations. The sample is restricted to SOEs listed on the IDX, excluding a broader population of non-listed SOEs that may exhibit different governance dynamics and fraud vulnerabilities. In addition, the model explains only 43% of the variation in financial statement fraud, indicating that other relevant explanatory variables remain unaccounted for. Using the CEO profile picture as a proxy for arrogance also presents construct validity concerns, as it may not adequately reflect underlying psychological traits. Future research should incorporate alternative fraud predictors such as ethical climate, executive compensation structures, or tone at the top and expand the analysis to include other sectors—such as financial institutions—and non-listed public entities. Employing alternative theoretical models and more sophisticated measurement approaches may also enhance the predictive power of fraud detection frameworks.

References

Association of Certified Fraud Examiner Indonesia. (2022). Association of Certified Fraud Examiner Indonesia.

Association of Certified Fraud Examiners Indonesia. (2019). Survei Fraud Indonesia 2019. Indonesia Chapter #111, 53(9), 1–76. https://acfe-indonesia.or.id/survei-fraud-indonesia/

Aulia, A. P. N., & Budiwitjaksono, G. S. (2020). Analisa teori fraud pentagon sebagai pendeteksi kecurangan pada laporan keuangan. Journal of Economics, Business, & Accountancy Ventura, 22(3). https://doi.org/10.14414/jebav.v22i3.1788

Budi Yanti, H., Mayangsari, S., Wiyono, S., Noor, I. N., Siregar, M., & Desiani, I. (2023). Prediction Of Financial Reporting Fraud With Crowe's Fraud Pentagon Model. Media Riset Akuntansi, Auditing & Informasi, 23(1), 183–202. https://doi.org/10.25105/mraai.v23i1.17293

Cressey, D. (1953). Other people's money, dalam: "The Internal Auditor as Fraud buster, Hillison, William. et. al.1999 . Managerial Auditing Journal, MCB University Press.

Crowe Horwarth. (2012). The Mind Behind The Fraudsters Crime. Key Behavioral and Environmental Element.

Dechow, P. M., Ge, W., Larson, C. R., & Sloan, R. G. (2011). Predicting Material Accounting Misstatements. Contemporary Accounting Research, 28(1), 17–82. https://doi.org/10.1111/j.1911-3846.2010.01041.x

Dwi Maryadi, A., Puspa Midiastuty, P., Suranta, E., & Robiansyah, A. (2020). Pengaruh fraud pentagon dalam mendeteksi fraudulent financial reporting. Jurnal Akuntansi, Keuangan, Dan Manajemen, 2(1), 13–25. https://doi.org/10.35912/jakman.v2i1.104

Farida, A. L., Wahyuni, D., & Fariska, P. (2022). Determinant of the Fraud Pentagon Theory for Fraudulence Financial Reporting.

Gansui, Joseph Philip Kambey, & Nikolas Fajar Wuryaningrat. (2023). Analisis Fraud Pentagon Dalam Mendeteksi Kecurangan Pelaporan Keuangan Pada Perusahaan Manufaktur. Jurnal Ekonomi, Kependidikan, Manajemen, Dan Akuntansi, 1, No. 2, 9–17.

Ghaisani, A. A., & Supatmi, S. (2022). Pendeteksian Kecurangan Pelaporan Keuangan menggunakan Model Fraud Diamond. Portofolio: Jurnal Ekonomi, Bisnis, Manajemen, Dan Akuntansi, 17(2), 90–109. https://doi.org/10.54783/portofolio.v17i2.205

Hambrick, & Mason, (1984). (1984). Upper echelons: The organization as a reflection of its top managers. The Academy of Management Review, 9(2), 193–206. https://doi.org/10.2307/258434

Harman, S. A., & Bernawati, Y. (2020). Determinant of Financial Statement Fraud: Fraud Pentagon Perspective in Manufacturing Companies Sendi. Elementary Education Online, 2020; 19 (4): Pp. 628-638, 19(4), 628–638. https://doi.org/10.17051/ilkonline.2020.04.166

Hastuti, P. M. D., Rahayu, S., & Pratiwi, E. C. (2023). Fraud Pentagon Theory Terhadap Kecurangan Laporan Keuangan di Sektor Perusahaan Manufaktur. Jurnal Ekobistek, 12(2), 614–621. https://doi.org/10.35134/ekobistek.v12i2.602

Hidayah, E., Saptarini, G., & Devi. (2019). Pentagon Fraud Analysis in Detecting Potential Financial Statement Fraud of Banking Companies in Indonesia.

Irmawati, F. (2022). Testing The Fraud Pentagon Theory On Fraudulent Financial Reporting In The Banking Sector Indonesia 2016-2020. 18, 235–247. http://dx.doi.org/10.24217

Jensen., & Meckling. (1976). Jensen and Meckling. The Corporate Financiers, 3, 305–360. https://doi.org/10.1057/9781137341280.0038

Koharudin, A., & Januarti, I. (2021). Lack of Financial Reporting Using Crowe's Fraud Pentagon Theory. Jurnal Dinamika Akuntansi, 13(2), 148–157. https://doi.org/10.15294/jda.v13i2.28602

Kurniawan, Hutadjulu, Y. L., & Simanjuntak, Ma. (2020). Pengaruh manajemen laba dan corporate governance terhadap kecurangan laporan keuangan. In Jurnal Akuntansi & Keuangan Daerah (Vol. 15, Issue 1).

Permatasari, D., & Laila, U. (2021). Deteksi Kecurangan Laporan Keuangan Dengan Analisis Fraud Diamond Di Perusahaan Manufaktur. Akuntabilitas, 15(2), 241–262. https://doi.org/10.29259/ja.v15i2.13025

Rachman, M. N., Suhendro, S., & Azhar, R. (2023). Analysis of factors affecting fraudulent financial reporting in fraud pentagon perspective. Asian Journal of Economics and Business Management, 2(1), 342–352. https://doi.org/10.53402/ajebm.v2i1.262

Randa, & Dwita. (2024). Pengaruh Elemen Fraud Pentagon Terhadap Deteksi Kecurangan Laporan Keuangan. JAD : Jurnal Riset Akuntansi & Keuangan Dewantara, 6(2), 61–71. https://doi.org/10.26533/jad.v6i2.1189

Rukmana, H. S. (2021). Determinants of Pentagon Fraud in Detecting Financial Statement Fraud and Company Value A R T I C LE I N F O A B S TR AC T. In Majalah Ilmiah Bijak (Vol. 18, Issue 1). http://ojs.stiami.ac.id

Sa'adah, Gita, V., Wahyu, K., Hariadi, S., & Kadir, U. A. (2022). Pengaruh stabilitas keuangan, kondisi industri, dan tekanan eksternal terhadap Kecurangan laporan keuangan dalam fraud triangle. Jurnal Analisa Akuntansi Dan Perpajakan, 6, 210–219.

Salsabilla, A. A., & Fitri, A. (2023). Fraud Pentagon dan Kecurangan Laporan Keuangan: Potret pada Perusahaan Sektor Kesehatan di Indonesia. E-Jurnal Akuntansi, 33(8), 2086–2101.

Sawaka, K., & Hiwa, I. G. N. (2020). Fraud pentagon theory in detecting financial perception of financial reporting with good corporate governance as moderator variable. International Research Journal of Management, IT and Social Sciences. https://doi.org/10.21744/irjmis.v7n1.824

Sawaka K., I. G. N. H. (2020). Fraud pentagon theory in detecting financial perception of financial reporting with good corporate governance as moderator variable. International Research Journal of Management, IT and Social Sciences. https://doi.org/10.21744/irjmis.v7n1.824

Situngkir, N. C., & Triyanto, D. N. (2020). Detecting Fraudulent Financial Reporting Using Fraud Score Model and Fraud Pentagon Theory : Empirical Study of Companies Listed in the LQ 45 Index. The Indonesian Journal of Accounting Research, 23(03). https://doi.org/10.33312/ijar.486

Tanjung, A. H., & Fitriani, E. (2023). Fraudulent Financial Reporting and Fraud Pentagon: Case Study on Indonesia Stock Exchange. Journal of Economics and Business, 6(2). https://doi.org/10.31014/aior.1992.06.02.507

Triyani, O., Kamalia, & Azwir. (2019). Pengaruh Good Corporate Governance terhadap Kecurangan Laporan Keuangan dengan Manajemen Laba sebagai Variabel Moderating. Jurnal Ekonomi Fakultas Ekonomi Dan Bisnis Universitas Riau Http://Je.Ejournal.Unri.Ac.Id/.

Vousinas, G. L. (2019). Advancing theory of fraud: the S.C.O.R.E. model. Journal of Financial Crime, 26(1), 372–381. https://doi.org/10.1108/JFC-12-2017-0128

Wibowo, & Putra, Y. (2023). Factors that Influence Financial Statement Fraud with Fraud Pentagon Analysis. Asia Pacific Fraud Journal, 8(1), 65. https://doi.org/10.21532/apfjournal.v8i1.271

Wolfe, D., & Hermanson, D. R. (2004). The Fraud Diamond: Considering Four Elements of Fraud. The CPA Journal., Volume 74, No. 12.