Research Horizon

ISSN: 2808-0696 (p), 2807-9531 (e)

Research Horizon
Volume: 05
Issue: 04
Year: 2025
Page: 1401–1414

Citation:
Wiraputra, M. R., Damayanti, F., & Haryono. (2025). Determination of fraud diamond theory in detecting fraud in financial reporting. *Research Horizon*, *5*(4), 1401–1414.

Article History:
Received: July 5, 2025
Revised: July 29, 2025
Accepted: August 10, 2025
Online since: August 30, 2025

Determination of Fraud Diamond Theory in Detecting Fraud in Financial Reporting

Muhammad Rizki Wiraputra[1*], Fera Damayanti[1], Haryono[1]

[1] Universitas Tanjungpura, Pontianak, Indonesia

[*]*Corresponding author: Muhammad Rizki Wiraputra*
(B1031221001@student.untan.ac.id)

Abstract

Financial statement fraud undermines transparency and accountability in state-owned enterprises, posing significant risks to stakeholders. This study aims to examine the effectiveness of the Fraud Diamond Theory, encompassing pressure, opportunity, rationalization, and capability, in detecting such fraud in Indonesian state-owned enterprises. The research analyzes 45 annual reports from 15 state-owned enterprises between 2021 and 2023, categorized into fraud and non-fraud groups, using logistic regression with 10 independent variables. Findings indicate that only the total accrual variable, representing rationalization, significantly influences fraud detection, while the other nine variables show no notable impact. This suggests that accounting manipulation through accruals is a critical factor in fraudulent financial reporting within state-owned enterprises. The study concludes that focusing on accrual-based indicators, rather than relying solely on external pressures or governance changes, enhances fraud detection. Strengthening internal audit procedures and monitoring accrual patterns are recommended to improve financial integrity. However, the study's focus on state-owned enterprises limits its generalizability, suggesting future research should include private companies and qualitative approaches to explore contextual factors.

Keywords

Financial Reporting, Financial Statement Frauds, Fraud Diamond Theory, Logistic Regression, State-Owned Enterprises.

1. Introduction

The increasingly competitive business environment pushes companies to seek opportunities to boost performance and profits, often leading to unethical practices to present a positive image (Setyono et al., 2023; Oktavianasari et al., 2024). As a result, fraudulent reporting becomes a concern. According to the Association of Certified Fraud Examiners fraud is a global issue, classified into corruption, asset misappropriation, and financial statement fraud (ACFE, 2024). Although financial statement fraud accounts for the smallest portion, it causes the highest average financial losses per case (Amyar et al., 2023; Marsela et al., 2024).

In Indonesia, ACFE (2020) reported 239 fraud cases, including 22 involving financial statement fraud, with total losses reaching IDR 242.26 billion (Ghaisani & Supatmi, 2023; Aditantra & Chariri, 2023). This type of fraud is a serious issue, as financial statements provide crucial information for stakeholders' economic decisions (Dinillah & Djamil, 2024). Financial reporting fraud is common in both private and government companies (Hardirmaningrum & Rohman, 2023). It involves intentional misstatements or omissions in financial statements (ACFE, 2020) and often stems from conflicting interests between stakeholders and management (Jensen & Meckling, 1976). High-profile cases like Enron and WorldCom have undermined public trust, and similar issues have occurred in various sectors in Indonesia, including within state-owned enterprises (Fadhlurrahman, 2021; Hermawati & Nugroho, 2024).

Various fraud cases have occurred in Indonesian SOEs, including financial report manipulation. PT Waskita Karya, for example, reported high profits in 2017–2018, followed by a drastic loss in 2019, raising suspicions. PT Wijaya Karya (WIKA) also allegedly hid vendor invoices to appear financially healthy, leading to suspected state losses of IDR 13.5 trillion (Oktavianasari et al., 2024). PT Garuda Indonesia reported a profit of USD809.84 thousand in 2018 despite a previous loss of USD216.5 million, later found to include invalid revenue recognition from PT Mahata Aero Teknologi. Similarly, PT Timah was involved in a corruption case totaling IDR 271 trillion, with manipulated financial reports and illegal practices causing state losses of IDR 29 trillion (Larasati et al., 2020). Fraud in State-Owned Enterprises (*Badan Usaha Milik Negara/*BUMN) not only damages company finances but also erodes public trust (Prihatini, 2021). Although prevention and detection are essential, uncovering fraud is often difficult due to limited evidence and audit constraints (Rezaee, 2002). One approach used to address financial statement fraud is the fraud diamond theory, which requires proxy variables to measure its components.

The Fraud Diamond Theory identifies four key elements contributing to fraudulent behavior: pressure, opportunity, rationalization, and capability. However, prior research has produced mixed results regarding the influence of these factors on financial statement fraud, creating a research gap. Specifically, findings related to financial stability remain inconsistent. While studies by Lapae et al. (2022) and Zulfa & Tanusdjaja (2022) reported no significant impact of financial stability on fraud, Fernando & Pangaribuan (2023) observed a negative relationship suggesting that deteriorating financial conditions increase the likelihood of fraudulent financial reporting. These conflicting results indicate that the pressure element, particularly financial stability, does not exhibit a consistent pattern in its influence on financial statement fraud. This is especially relevant in the context of state-owned enterprises, which are subject to more stringent regulations and oversight compared to private companies.

Research on opportunity, rationalization, and capability in relation to financial statement fraud shows inconsistent findings. Some studies found that opportunity and rationalization positively affect fraud, while others reported the opposite (Zulfa

& Tanusdjaja, 2022; Pamungkas et al., 2024; Oktavianasari et al., 2024;). Similarly, capability was found to have a significant effect in some studies but not in others. These discrepancies suggest that internal controls and organizational culture may influence the relationship between Fraud Diamond elements and fraud, highlighting a research gap in understanding these dynamics in BUMN companies.Therefore, this study aims to re-examine the determination of Fraud Diamond factors by considering the unique characteristics of BUMN companies, in order to gain a deeper understanding and provide more applicable recommendations in efforts to prevent fraudulent financial statements.

2. Literature Review and Hypothesis Development

2.1. Fraud Diamond Theory

Agency theory, as introduced by Jensen and Meckling (1976), highlights the conflict that arises between principals and agents due to their differing objectives. In situations where there is information asymmetry, agents may exploit this gap by manipulating financial statements to serve their own interests. To mitigate this, strong governance and transparency are essential. Fraud Diamond Theory, which was proposed by Wolfe and Hermanson (2004), expanding on Cressey's Fraud Triangle put forward by Cressey (1953), identifies four elements are pressure, opportunity, rationalization, and capability, as drivers of fraud. Pressure can stem from personal or organizational demands, while weak internal controls and rational justifications enable fraud. Capability reflects the perpetrator's skills and position to exploit opportunities. Financial Statement Fraud (FSF), as defined in SAS Number 99, involves intentional misstatements to mislead users, including asset inflation or concealment. Detection models like the Fraud-Score, which builds on Beneish's M-Score, analyze accruals and financial metrics to identify potential fraud, offering early warnings to stakeholders (Dechow et al., 2011; Mentari et al., 2024). These frameworks collectively help understand and detect fraudulent financial reporting.

2.2 Pressure

Pressure Is the pressure of the urge to commit fraud due to high financial need or external pressure. Companies with stable financial conditions are more trusted by stakeholders (Aditantra & Chariri, 2023). However, when stability is threatened, management may manipulate financial reports to maintain a positive image (Fernando & Pangaribuan, 2023). Some studies found no significant relationship between financial stability and fraud detection (Lestari & Jayanti, 2021). External pressure arises from creditors, investors, or regulators expecting strong financial performance (Nuridah et al., 2023).

High leverage increases default risk, potentially motivating fraudulent behavior (Rahmawati & Juliarto, 2025). Research findings vary, with some showing negative impacts (Setyono et al., 2023), while others find no significant effect (Sholikatun & Makaryanawati, 2023). Personal financial pressure may drive individuals to commit fraud (Skousen et al., 2009). Some studies found a significant positive relationship (Sari & Lestari, 2020), though others did not (Calista & Nugroho, 2022). Challenging financial targets may place pressure on management to engage in fraudulent activities in order to achieve desired performance outcomes (Yono & Indira, 2024). While several studies support this view (Naldo & Widuri, 2023; Achmad et al., 2025). Other research indicates that such targets can also encourage ethical conduct (Rahmani & Amin, 2021).

H1: Financial stability has a positive effect on financial statement fraud detection.
H2: External pressure has a positive effect on financial statement fraud detection.

H3: Personal financial need has a positive effect on financial statement fraud detection.
H4: Financial target has a positive effect on financial statement fraud detection.

2.3 Opportunity, Rationalization, and Capability

Opportunity arises when weak supervision or internal control systems are ineffective. Opportunity is described by the nature of industry and ineffective monitoring. Industry characteristics, especially those reliant on receivables, may influence fraud risk (Himawan & Wijanarti, 2020). Some studies find no significant impact (Hidayat & Triyono, 2022), while others report the opposite (Prihatini, 2021). Weak internal monitoring provides management with greater freedom to commit fraud (Skousen et al., 2009). While some evidence supports this link (Sari & Lestari, 2020), other studies found no significant relationship (Calista & Nugroho, 2022).

The moral or ethical justification for fraudulent acts, although they cannot always be directly measured. Audit opinions may serve as rationalization for fraudulent actions (Skousen et al., 2009). However, studies are inconclusive, with many finding no significant effect (Ayuningrum et al., 2021; Sari & Lestari, 2020). Switching auditors may be a tactic to obscure prior fraudulent activities (Rukoyah et al., 2022). Some studies support this view (Puspitasari & Harto, 2024), while others find no significant effect (Rahmani & Amin, 2021). The ratio of total accruals to total assets can indicate the extent of earnings manipulation (Sari & Lestari, 2020), with several studies supporting its positive relationship with fraud (Mukaromah, 2021). Capability is an individual's ability to commit and hide cheating This is illustrated by a change in director. Leadership transitions may create opportunities for fraud due to shifting control and new capabilities (Puspitasari & Harto, 2024).

H5: Nature of industry has a positive effect on financial statement fraud detection.
H6: Ineffective monitoring has a positive effect on financial statement fraud detection.
H7: Auditor opinion has a positive effect on financial statement fraud detection.
H8: Change in auditor has a positive effect on financial statement fraud detection.
H9: Total accruals have a positive effect on financial statement fraud detection.
H10: Change in director has a positive effect on financial statement fraud detection.

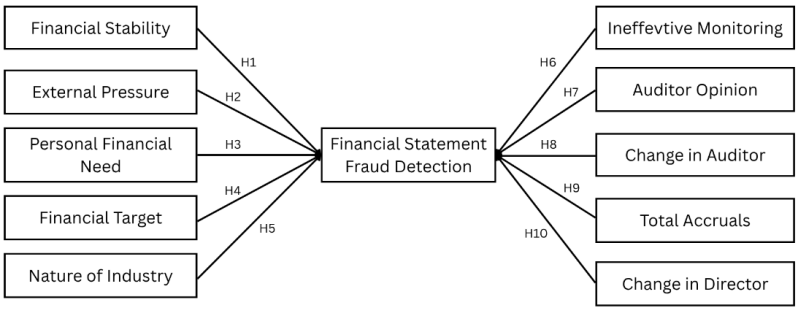

Figure 1. Research Framework

This research is founded on the Fraud Diamond Theory developed by Wolfe and Hermanson (2004), which suggests that financial statement fraud is influenced by four fundamental components: pressure, opportunity, rationalization, and capability. Building upon this framework, the study develops ten hypotheses to examine a range of factors that may impact the detection of such fraud. The pressure component is represented by four variables financial stability (H1), external pressure (H2), personal financial need (H3), and financial target (H4) all of which are presumed to heighten the risk of fraud under increasing financial or performance-related stress.

The opportunity element is examined through the nature of industry (H5) and ineffective monitoring (H6), implying that specific industry characteristics or inadequate internal oversight may foster conditions favorable to fraudulent behavior.

The rationalization and external oversight dimension captured through auditor opinion (H7) and change in auditor (H8), representing how external audit judgments and transitions may affect the detection of fraud. Meanwhile, total accruals (H9) used as a proxy to assess the manipulation of financial reports through accounting estimates. Lastly, change in director (H10) represents the capability dimension, referring to the ability of individuals in power to commit fraud due to their position and influence. By examining these ten hypotheses, the study aims to identify key determinants that affect the detection of financial statement fraud in Indonesian state-owned enterprises (SOEs), offering a comprehensive understanding of how each element of the Fraud Diamond influences fraudulent behavior.

3. Methods

This research adopts a quantitative approach to test hypotheses using objective, measurable data and statistical tools (Sugiyono, 2019). Quantitative methods are appropriate in this context because they enable the identification of patterns, relationships, and the magnitude of influence among the variables. The research population consists of state-owned enterprises (*Badan Usaha Milik Negara/*BUMN) listed on the Indonesia Stock Exchange during the period 2021–2023, with a total of 143 companies.

This study employed a purposive sampling technique, selecting samples based on specific criteria aligned with the research objectives (Sugiyono, 2010). The criteria required that companies be consistently listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period, publish complete financial statements and audit opinions, and not be delisted or suspended throughout the observation period. Applying these standards, 20 companies were chosen, resulting in an initial dataset of 60 annual reports over three years. After conducting data transformation and eliminating outliers that could potentially skew the regression results, the final dataset included 45 usable annual reports.

Data analysis was conducted using SPSS version 26. The methods applied included descriptive statistics to provide an overview of the data, logistic regression to examine the research hypotheses, and model feasibility tests such as the Hosmer and Lemeshow Goodness-of-Fit Test, overall model fit evaluation, and Adjusted R^2 to assess the model's explanatory strength. Logistic regression was selected due to the binary nature of the dependent variable financial statement fraud (fraud vs. no fraud) making it appropriate for classification and prediction. This analytical approach was chosen to ensure statistical accuracy and alignment with the study's objectives.

4. Results

This section presents the findings from the statistical analysis conducted on 45 annual reports from Indonesian state-owned enterprises (SOEs) between 2021 and 2023. The results include descriptive statistics, model fit assessments, and logistic regression outcomes to evaluate the influence of the Fraud Diamond Theory components on financial statement fraud detection.

Table 1. Descriptive Statistical Analysis

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Financial Stability	45	0.644710	0.715684	-0.00818082	0.218368520
External Pressure	45	0.328581	2.058333	0.66527671	0.327240971
Personal Financial Need	45	0.000000	0.880058	0.15664338	0.30689176
Financial Target	45	-0.948898	0.326724	0.01235211	0.182181308
Nature Of Industry	45	-0.570915	0.391990	-0.00728304	0.143874697
Ineffective Monitoring	45	0.400000	2.000000	0.90666671	0.377013059
Auditor Opinion	45	0	1	0.93	0.252
Change In Auditor	45	0	1	0.18	0.387
Total Akrual	45	-0.693405	0.082234	-0.07442680	0.119143838
Change In Director	45	0	1	0.40	0.495
Fraud Score	45	0	1	0.44	0.503
Valid N (listwise)	45				

Referring to Table 1, the descriptive statistics from 45 sampled companies reveal that the Financial Stability variable has an average of -0.008 with a standard deviation of 0.218, suggesting that the companies generally maintain a stable financial condition. The External Pressure variable averages 0.665 with a standard deviation of 0.327, reflecting a moderate level of external financial demands. Personal Financial Need has a mean value of 0.157 and a standard deviation of 0.310, while the Financial Target variable shows a low average of 0.012 with a standard deviation of 0.182. The Nature of Industry variable records a mean of -0.007 and a standard deviation of 0.144. Ineffective Monitoring displays a relatively high mean of 0.907 and a standard deviation of 0.377, indicating notable supervisory weaknesses. Auditor Opinion has a mean of 0.252, while Change in Auditor and Change in Director are reported at 0.18 and 0.40 respectively. Total Accrual averages -0.074 with a standard deviation of 0.119. Lastly, the Fraud Score has an average of 0.44 with a standard deviation of 0.503, suggesting that most companies in the sample experience a moderate level of fraud and significant issues with ineffective oversight.

Table 2. Hosmer and Lemeshow Test

Statistics	Value
Step	1
Chi-square	8.214
Df	7
Sig.	0.314

Referring to Table 2, the Hosmer and Lemeshow Goodness of Fit Test evaluates whether the logistic regression model aligns well with the observed data. A significance value greater than 0.05 indicates a good fit, while a value of 0.05 or less suggests a poor fit. As shown in Table 1.4, the Chi-Square value is 8.214 with a

significance level of 0.314. This result indicates that the model fits the data well and is therefore considered acceptable for predicting the observed outcomes.

Table 3 Model Fit Test Results (-2LL Initial)

Iteration History[a,b,c]			
Iteration		**-2 Log likelihood**	**Coefficients**
			Constant
Step 0	1	61.827	-0.222
	2	61.827	-0.223

Table 3 shows the fit test result model. In the initial stage of logistic regression analysis, iterations were carried out to obtain initial estimates of the model without including independent variables (empty models). The results in Step 0 show that the value of -2 Log Likelihood is 61,827, which is a measure of the accuracy of the initial model in predicting data with only constants. The value of the constant coefficient is in the range of -0.222 to -0.223, which indicates a baseline probability of financial statement fraud when all predictor variables have not been included in the model. This value of -2 Log Likelihood will be a comparator when the full model (with independent variables) is estimated, to assess whether the addition of predictor variables provides an improvement in model feasibility.

Table 4 Model Fit Test Results (-2LL Final)

Iteration	**-2 Log likelihood**
1	42.557
2	38.410
3	36.903
4	36.620
5	36.580
6	36.569
7	36.565
8	36.563
9	36.563
10	36.563
11	36.563
12	36.563
13	36.562
14	36.562
15	36.562
16	36.562
17	36.562
18	36.562
19	36.562
20	36.562

Table 4 shows that the overall regression model test was conducted with overall model fit comparing the initial (step 0) and final (step 1) -2 Log Likelihood values. The decrease in value indicates that the hypothesized model fits the data. Based on table 1.5 and table 1.6 from the initial 61,827 to 42,557. The decrease in the -2LL value indicates that the regression model of this study is good or in other words the hypothesized model fits the data.

Table 5. Coefficient of Determination

Statistics	Value
Step	1
-2 Log likelihood	36.562[a]
Cox & Snell R Square	0.430
Nagelkerke R Square	0.575

Table 5 presents the R^2 value, which indicates the extent to which the model can explain the variation in the dependent variable. According to the table, the Nagelkerke R Square is 0.575, suggesting that the independent variable collectively explain 57.5% of the variance in the dependent variable, Financial Report Fraud Detection (Y). The remaining 42.5% is attributed to other factors not included in the model.

Table 6. Logistic Regression Result

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Financial Stability	-037	5.483	2.148	1	0.143	0.000
External Pressure	-2.976	2.404	1.533	1	0.216	0.051
Personal Financial Need	3.024	1.807	2.799	1	0.094	20.574
Financial Target	3.943	7.562	0.272	1	0.602	51.565
Nature Of Industry	6.242	4.773	1.710	1	0.191	514.124
Ineffective Monitoring	-1.144	1.289	0.788	1	0.375	0.318
Auditor Opinion(1)	22.237	19642.846	0.000	1	0.999	4543950281.349
Change In Auditor(1)	-4.067	2.207	3.395	1	0.065	0.017
Total Akrual	17.988	8.489	4.490	1	0.034	64872728.210
Change In Director(1)	-0.625	0.998	0.393	1	0.531	0.535
Constant	-18.030	19642.846	0.000	1	0.999	0.000

Based on Table 6 above, the logistic regression model obtained is as follows:
F-Score = -18.030 – 8.307 ACHANGE – 2.976 LEV + 3.024 OSHIP + 3.943 ROA + 6.242 RECEI – 1.144 BDOUT + 22.237 OA – 4.067 CPA + 17.988 TATA – 0.625 DCHANGE

Logistic regression hypothesis testing can be done with a significance value of α = 5%. If the significance level is <0.05, the hypothesis is accepted, and if the significance level is >0.05, the hypothesis is rejected.

5. Discussion

Financial stability has been found to have an insignificant impact on the detection of financial statement fraud. The analysis produced a significance level of 0.143, exceeding the 0.05 benchmark, resulting in the rejection of the hypothesis. This

suggests that financial stability does not meaningfully influence the identification of fraudulent financial reporting. These results align with the studies by Lestari & Jayanti (2021) and Nurbaiti & Arthami (2023), which also concluded that there is no significant link between financial stability and the incidence of fraud. One possible reason is that company management is generally able to maintain asset performance and fulfill obligations effectively, thereby minimizing the need to engage in fraudulent behavior. Furthermore, in line with the Fraud Diamond Theory, internal early warning mechanisms may serve to prevent fraud regardless of the company's financial stability status.

External pressure is found to have no meaningful impact on the detection of financial statement fraud, as indicated by a significance value of 0.216 above the 0.05 threshold leading to the rejection of the hypothesis. This result is consistent with the studies by Sholikatun & Makaryanawati (2023) and Nuridah et al. (2023), who also concluded that external pressure does not significantly influence fraudulent financial reporting. While pressure from creditors or investors may be present, its potential impact appears to be diminished by external oversight mechanisms, such as supervision from government bodies like ministries or the Supreme Audit Agency (Febrianto & Suryandari, 2022). Furthermore, the leverage ratio does not show a significant role in encouraging fraud, possibly because the sampled companies maintain relatively low debt levels and tend to rely on internal funding. These findings are consistent with Agency Theory, which posits that external pressure alone is not enough to generate agency conflicts between managers and owners, particularly when strong oversight systems are in place.

Personal financial need is shown to have no significant influence on the detection of financial statement fraud, as indicated by a significance value of 0.094, leading to the rejection of the hypothesis. This finding is consistent with studies by Prihatini (2021) and Calista & Nugroho (2022), which also concluded that personal financial needs do not significantly drive fraudulent behavior. In other words, personal financial pressure on management does not necessarily lead to the manipulation of financial reports. This result contrasts with the assumptions of the Fraud Diamond Theory, as the low average share ownership in the sampled companies suggests a clear separation between ownership and management, thereby limiting managers' opportunity and motivation to engage in fraudulent activities.

Financial targets are found to have no significant effect on the detection of financial statement fraud, as shown by a significance value of 0.602, which exceeds the 0.05 threshold, resulting in the rejection of the hypothesis. This finding is in line with the research of Sholikatun & Makaryanawati (2023) who also observed no significant relationship. From the perspective of the Fraud Diamond Theory, this may be attributed to the typically reasonable or attainable financial targets set by state-owned enterprises thereby reducing the pressure on management to engage in financial report manipulation.

The nature of the industry does not significantly affect the detection of financial statement fraud, as shown by a significance value of 0.191 (> 0.05), leading to the rejection of the hypothesis. This finding aligns with studies by Sari & Lestari (2020) and Hidayat & Triyono (2022), which also concluded that industry characteristics do not influence fraud. This may be due to the fact that such characteristics do not necessarily create pressure or opportunity for fraud, as internal company policies play a more critical role. According to the Fraud Diamond Theory, cash turnover is not significantly influenced by changes in average receivables, and a high volume of receivables does not disrupt operations or create incentives for fraudulent reporting.

Ineffective monitoring does not influence the detection of financial statement fraud, as indicated by a significance value of 0.375 (> 0.05), leading to the rejection of the hypothesis. This finding supports the research of Calista & Nugroho (2022), Setyono et al. (2023), and Puspitasari & Harto (2024), which suggest that weak

internal supervision is not always directly linked to fraud, possibly due to the role of other oversight mechanisms such as external auditors. While this contradicts agency theory, it aligns with the fraud diamond theory. The sample of BUMN companies reveals a higher proportion of independent commissioners compared to the total board, which is expected to enhance governance. Additionally, the implementation of POJK Number 33/POJK.04/2014 requiring independent commissioners helps reduce the risk of fraudulent financial reporting.

Auditor opinion is found to have no significant impact on the detection of financial statement fraud, as indicated by a significance value of 0.999, which surpasses the 0.05 threshold. Consequently, the hypothesis is rejected. This outcome is consistent with the studies conducted by Ayuningrum et al. (2021) and Preicilia et al. (2022), which similarly concluded that auditor opinions do not play a substantial role in identifying fraudulent financial reporting. According to the Fraud Diamond Theory, auditor opinions may not always serve as a rationalization for fraudulent behavior, especially when such opinions are based on normative considerations rather than actual fraud findings. Additionally, Audit Risk Theory suggests that while auditor opinions can shape user perceptions, the likelihood of detecting fraud remains low if auditors do not uncover any material indicators of wrongdoing.

Changes in auditors are found to have no significant effect on the detection of financial statement fraud, as reflected by a significance value of 0.065, which results in the rejection of the hypothesis. This finding is in line with the research of Mukaromah (2021), Kusumawati et al. (2022), and Puspitasari & Harto (2024), who also indicated that switching auditors does not necessarily improve the ability to detect fraud.In line with Audit Risk Theory, auditor changes are often made to comply with government regulations limiting the tenure of public accounting firms to five years, rather than to conceal previous audit findings, thus having minimal impact on the likelihood of fraud detection.

Total accrual has a significant effect on the detection of financial statement fraud, as indicated by a significance value of 0.034 (<0.05), leading to the acceptance of the hypothesis. This finding aligns with the research of Sari & Lestari (2020), which suggests that a higher total accrual ratio increases the likelihood of fraudulent activity. It supports the role of total accrual as a rationalization indicator within the Fraud Diamond Theory. This is grounded in the accrual accounting concept, where management can manipulate earnings by recognizing transactions before actual cash inflows or outflows occur.

Change in directors does not influence the detection of financial statement fraud, as shown by a significance value of 0.531 (> 0.05), leading to the rejection of the hypothesis. This result aligns with the studies of Ayuningrum et al. (2021) and Zulfa & Tanusdjaja (2022), which found a similar lack of effect. According to audit risk theory, changes in leadership do not necessarily lead to fraud, as such transitions may not directly impact accounting policies or financial reporting systems, and therefore do not increase the probability of fraud being detected. The findings imply that most traditional fraud risk factors such as financial stability, external pressure, personal financial need, financial targets, industry characteristics, monitoring effectiveness, auditor opinion, auditor changes, and leadership changes may have limited relevance in detecting financial statement fraud within state-owned enterprises, likely due to strong governance structures and regulatory oversight. However, the significant influence of total accruals highlights the importance of focusing on accrual-based indicators as a more effective tool for identifying potential fraudulent reporting.

6. Conclusion

The analysis reveals that only one variable, Total Accrual. representing rationalization, significantly impacts fraud detection. A higher accrual level increases

the potential for fraud, as it can be used to rationalize manipulation. In contrast, the other nine variables showed no significant effect. These results suggest that, within state-owned enterprises, rationalization through accounting practices plays a more critical role in fraud detection than the other factors. However, total accrual stood out as the only variable that significantly influenced the detection of financial statement fraud, supporting the notion that accrual-based manipulations are a key rationalization mechanism used by management to distort financial outcomes. This reinforces the relevance of monitoring accrual patterns as a red flag for potential fraud.

The study highlights the importance of focusing on internal indicators, such as financial reporting practices, rather than solely relying on external pressures or governance changes to detect fraud. For organizations, especially those operating under strict regulatory oversight like BUMNs, continuous refinement of internal audit procedures and vigilant analysis of accrual trends may prove more effective in uncovering financial misstatements than changes in leadership or external audit opinions. However, this study is limited by its focus on a specific sector and time period, which may restrict the generalizability of findings to other industries or contexts. Future research could expand the scope by including private companies or cross-country comparisons, incorporating qualitative approaches to explore contextual factors influencing fraud, and testing alternative or emerging fraud detection indicators beyond those used in this study.

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Acknowledgment
We gratefully acknowledge the contributions of individuals who supported the completion of this article.

Funding Information
This research did not receive any funding.

Conflict of Interest Statement
The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement
Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement
The data that support the findings of this study are available from the corresponding author upon reasonable request.