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Financial Distress and Fraud Hexagon Theory Components on Financial Statement Fraud

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Abstract---*This study aims to examine the effect of financial distress and the components of the Fraud Hexagon Theory on financial statement fraud among insurance companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. From the total population, 12 companies met the sampling criteria, resulting in 60 firm-year observations over the five-year research period. Data were collected using a non-participant observation method by downloading company information from the official IDX website (www.idx.co.id). The analytical method employed was binary logistic regression, processed using STATA software. The results indicate that financial distress (X1), pressure (X2), opportunity (X3), rationalization (X4), capability (X5), arrogance (X6), and collusion (X7) all have a significant positive effect on financial statement fraud. These findings support both the Fraud Hexagon Theory and Agency Theory, demonstrating that financial distress and the six elements of the fraud hexagon contribute to fraudulent financial reporting. Practically, the findings serve as a valuable reference for investors, emphasizing the importance of assessing financial reports not only based on numerical indicators but also by considering non-financial factors that may trigger fraudulent behavior.*
Keywords---*Financial Distress, Financial Statement Fraud, Fraud Hexagon Theory.*

Introduction

In Indonesia, financial statement fraud has emerged as a growing concern, particularly within the insurance sector in recent years. This sector is considered especially vulnerable to fraudulent practices due to the complexity of its products, long institutional structures, and the low financial literacy of many policyholders. According to the National Consumer Protection Agency (BPKN), there were 2,152 complaints in the financial services sector, with the insurance industry accounting for the majority (Finansial Bisnis.Com, 2021). These complaints included claim denials, product misselling, and payment failures by insurance companies, often used as justification for not fulfilling

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claims (Finansial Bisnis.Com, 2021). Moreover, the Indonesian insurance industry has been plagued by several high-profile scandals, indicating systematic manipulation of financial statements.

This phenomenon underscores the need for a deeper understanding of the factors that drive financial statement fraud. One relevant theoretical approach is the Fraud Hexagon Theory proposed by Vousinas (2019), which expands on the classical Fraud Triangle and Fraud Pentagon frameworks. The theory posits that fraud is not only driven by pressure, opportunity, and rationalization but is also influenced by capability, arrogance, and collusion. This combination of factors provides a more nuanced explanation of fraudulent behavior, whether committed individually or collectively by management. In practice, however, an additional critical factor outside the hexagon also plays a significant role—financial distress. Financial distress refers to a company's deteriorating financial condition that approaches crisis or bankruptcy. Unlike pressure in the Fraud Hexagon, which reflects individual psychological pressure, financial distress represents organizational-level financial strain, such as liquidity issues, sustained operating losses, or insolvency risks. Under such conditions, management is often compelled to manipulate financial statements to preserve the company's image, avoid market panic, or simply sustain operations (Purnanandam, 2008).

In the insurance industry, financial distress not only affects operational performance but also creates opportunities for management to manipulate financial reports to maintain market trust and protect the firm's reputation. To assess financial distress, the Altman Z-Score model can be employed. This model predicts the likelihood of financial distress using five financial ratios applicable to non-manufacturing firms: Working Capital to Total Assets, EBIT to Total Assets, Book Value of Equity to Total Assets, and Sales to Total Assets. These ratios are useful for identifying bankruptcy risks based on the company's financial profile. These findings are consistent with previous research by Mardiana (2021), which reported a significant positive effect of financial distress on financial statement fraud. However, Rahmasari & Prasetyo (2023), found no significant effect, highlighting the ongoing debate over this relationship.

To detect financial statement fraud, auditors and evaluators must examine multiple dimensions. Initially, the Fraud Triangle Theory by Cressey (1953) was widely used, but subsequent developments, notably the Fraud Hexagon Theory by Vousinas (2019), introduced a broader set of factors: pressure, opportunity, rationalization, capability, ego (arrogance), and collusion. This expanded model enables a more comprehensive understanding of fraud's root causes. Fraud in corporate settings is influenced by these six factors. Pressure often arises from business or economic demands, pushing management to meet the profit expectations of investors and stakeholders (Tragouda et al., 2024). Capability reflects the individual's competence and authority to commit fraud effectively (Sánchez-Aguayo et al., 2021). Opportunity stems from weaknesses in internal control systems that allow fraud to occur undetected (Gepp et al., 2024). Rationalization refers to the justification used by perpetrators to legitimize their fraudulent behavior (Gepp et al., 2024). Arrogance describes the sense of superiority that leads individuals to believe they are above the rules (Vousinas, 2019). Collusion occurs when two or more parties collaborate to commit fraud, making it more difficult to detect (Apsari & Suhartini, 2021; Rezaee, 2005).

The first factor, pressure, in this study is proxied by financial stability. Managers often face intense pressure to maintain financial stability amid economic, industry, and operational challenges. Although pressure in the original theory refers to individual psychological stress, in practice it often arises from unstable company finances—such as declining assets or profits. Thus, financial stability is a relevant proxy for early-stage pressure. Prior studies have shown a significant association between financial stability and financial statement fraud (Murtanto & Sandra, 2019; Maryani et al., 2022; Aviantara, 2021; Chantia et al., 2021).

The second factor, opportunity, is proxied by ineffective monitoring, typically measured by the proportion of independent commissioners on the board. A lower proportion of independent commissioners suggests weaker oversight, increasing the potential for fraud (Mukaromah & Budiwitjaksono, 2021). Several studies have confirmed the link between ineffective monitoring and financial statement fraud (Murtanto & Sandra, 2019; Meidijati & Amin, 2022; Hartadi, 2022; Maryani et al., 2022).

The third factor, rationalization, refers to the cognitive process used by individuals to justify fraudulent actions. This is often based on the belief that the fraud is for the company's short-term good or due to perceived unfair treatment. In this study, rationalization is proxied by auditor turnover. A change in auditors may indicate disagreement or dissatisfaction with the previous auditor's ethical standards or audit practices, suggesting a search for a more lenient auditor. Auditor turnover may also signal attempts to conceal fraud, as new auditors lack familiarity with the company's history (Mukaromah & Budiwitjaksono, 2021). Research supports this relationship (Aviantara, 2021; Hartadi, 2022).

The fourth factor, capability, reflects the power and authority of individuals within an organization to execute and conceal fraud. It is proxied by director changes. New directors may introduce policies or reporting practices that increase fraud risk. According to Wolfe & Hermanson (2004), individuals in strategic positions with access to key information are more likely to perpetrate fraud. Leadership changes may also reflect organizational instability,

increasing the likelihood of fraud (Aviantara, 2021; Widyatama & Setiawati, 2021; Lionardi & Suhartono, 2022; Larum et al., 2021; Liani, 2024).

The fifth factor, arrogance, is proxied by CEO duality—when the CEO also chairs the board of commissioners. This concentration of power can reduce the effectiveness of checks and balances, heightening the risk of fraud. Arrogant managers may act without regard for governance principles, using their influence to conceal unethical practices. Several studies confirm the relationship between CEO duality and fraud (Meidijati & Amin, 2022; Widyatama & Setiawati, 2021; Siregar & Surbakti, 2019; Carla & Pangestu, 2021), though some studies suggest no significant correlation (Wicaksono & Suryandari, 2021; Sari & Hanafi, 2023).

The sixth factor, collusion, involves collaboration between internal and external parties to commit fraud. In this study, it is proxied by political connections. Politically connected firms may benefit from reduced regulatory scrutiny, preferential treatment, and easier access to public contracts or loans. According to Wulandari & Ali (2023), political ties among directors or commissioners can provide a shield that facilitates fraud. This finding is consistent with research by Lailatuddzikriyyah (2021), who found that political connections significantly influence financial statement fraud.

Through the Fraud Hexagon approach, the analysis of financial statement fraud becomes more comprehensive as it takes into account psychological, structural, and relational dimensions that influence individual behavior within organizations. Therefore, the use of this framework in examining the insurance sector in Indonesia is highly relevant, particularly during the 2019–2023 period, which was marked by several major fraud cases and heightened financial pressure due to the pandemic.

Literature Review and Hypothesis Development

The Fraud Hexagon Theory includes an element of pressure, which often manifests in the form of financial distress. When a company experiences financial difficulties, management may feel compelled to engage in unethical behavior to maintain the firm's financial stability. According to Agency Theory, which explains the conflict of interest between owners (principals) and management (agents), financial pressure may push managers to act opportunistically, prioritizing personal interests over those of the company. Financial distress intensifies this agency conflict, as management may feel pressure to manipulate financial statements to protect the company's image or meet targets set by shareholders. Financial distress creates an environment in which the opportunities and rationalizations for fraud are heightened. These findings are consistent with studies by Pratama & Puspitasari (2022) and Putri & Sasongko (2024), which found that managers feel pressure and must be accountable for their performance to stakeholders. Utami & Pusparini (2019) also found that worsening financial conditions increase the likelihood of financial statement manipulation.

H1: Financial distress has a positive effect on the indication of financial statement fraud.

The Fraud Hexagon Theory identifies pressure as one of the main drivers of fraudulent behavior, experienced by individuals or organizations. Pressure may arise from urgent financial needs, unrealistic targets, or a deteriorating economic environment (Vousinas, 2019). These pressures often influence behavior and may lead individuals to resort to fraud to meet expectations. Financial stability reflects a business entity's ability to maintain consistent financial conditions and is often seen as a key performance indicator. However, economic instability increases pressure on management, especially when financial resources are mismanaged. In Agency Theory, such situations highlight conflicts of interest between agents (management) and principals (shareholders) (Jensen & Meckling, 1976). Agents may act opportunistically to maintain financial stability, even at the expense of long-term shareholder interests. This implies a strong link between a company's financial strength and the risk of fraud, with financial pressure being a primary driver. According to Auditing Standards Statement (SAS) No. 99, financial instability caused by operational, economic, or industrial challenges imposes significant pressure on management (Achmad et al., 2022). Empirical studies by Achmad et al. (2023), Fathmaningrum & Anggarani (2021), Situngkir (2020), Chantia et al. (2021), Sari et al. (2020), Irwandi et al. (2019), Alfarago & Mabrur (2022), Fitriyah & Novita (2021), and Fitri et al. (2019; Sun et al., 2014) found that financial stability positively affects financial statement fraud.

H2: Pressure has a positive effect on the indication of financial statement fraud.

The Fraud Hexagon Theory emphasizes that opportunity plays a crucial role in enabling fraud, especially when organizational oversight is ineffective (Vousinas, 2019). One key factor is ineffective monitoring, reflecting weak supervision from the board of commissioners or audit committees. When oversight is lacking, fraud becomes more likely. Thus, ineffective monitoring is seen as a manifestation of the opportunity element in this theory. Ineffective

monitoring creates a permissive environment where individuals exploit gaps without fear of consequences. Weak internal controls allow management to manipulate financial reporting. According to Agency Theory, ineffective monitoring exacerbates the conflict between agents (managers) and principals (shareholders), as agents can pursue self-interest unimpeded (Jensen & Meckling, 1976). Studies by Achmad et al. (2023), Alfarago & Mabrur (2022), Aviantara (2021), Fitri et al. (2019), Fitriyah & Novita (2021), Sukmadilaga et al. (2022), Tragouda et al. (2024), Wijayanti et al. (2024), Preicilia et al. (2022), Rizkiawan & Subagio (2022), Sumbari et al. (2023), Allie et al. (2024), and Hartono & Mukhibad (2024) confirm that opportunity has a positive effect on financial statement fraud.
H3: Opportunity has a positive effect on the indication of financial statement fraud.

The Fraud Hexagon Theory explains that rationalization refers to the moral justifications individuals use to legitimize fraudulent behavior (Vousinas, 2019). Perpetrators often believe their actions are acceptable, whether as a response to pressure, perceived unfair treatment, or to benefit the company. One situation that may trigger rationalization is auditor turnover. New auditors may not fully understand the company's operations, creating gaps in oversight. According to Agency Theory, auditor changes can exacerbate conflicts of interest between agents and principals, as agents may use the opportunity to hide fraudulent actions (Jensen & Meckling, 1976). Studies by Alfarago & Mabrur (2022), Fitri et al. (2019), Purnama et al. (2022), Sari et al. (2020), Machmuddah & Pamungkas (2019), Tragouda et al. (2024), Meidijati & Amin (2022), Khamainy et al. (2022), Aviantara (2021), and Jannah et al. (2021) found that rationalization and auditor changes positively affect financial statement fraud.
H4: Rationalization has a positive effect on the indication of financial statement fraud.

The Fraud Hexagon Theory defines capability as the skills or position that enable individuals to commit and conceal fraud (Vousinas, 2019). This is often held by those in high authority positions with deep organizational knowledge or system access. According to Agency Theory, director changes can increase agency conflict, especially during transition periods when oversight may not yet be effective (Jensen & Meckling, 1976). New directors may exploit their strategic positions to initiate or conceal fraud. This transition provides an opportunity to evaluate the capability of incoming leaders (Sagala & Siagian, 2021). Research by Arel et al. (2023), Rizkiawan & Subagio (2022), Lauwrens & Yanti (2022), Septiningrum & Mutmainah (2022), Meidijati & Amin (2022), Maryani et al. (2022), Purnaningsih (2022), Sari et al. (2020), Nadziliyah & Primasari (2022), and Aviantara (2021) shows that director turnover positively affects financial statement fraud.
H5: Capability has a positive effect on the indication of financial statement fraud.

Arrogance, or ego, reflects a belief that fraud will go undetected. CEO duality, especially in contexts like Indonesia where family ties influence board positions, facilitates fraud. According to Agency Theory, CEO duality creates potential conflicts of interest between owners and management. A CEO who also chairs the board may prioritize personal interests over shareholder interests (Jensen & Meckling, 1976). CEO duality weakens performance evaluation and reduces governance effectiveness. Research by Siregar & Surbakti (2019), Widyatama & Setiawati (2021), Carla & Pangestu (2021), and Meidijati & Amin (2022; Winata & Budiasih, 2022) found a correlation between CEO duality and financial statement fraud. However, conflicting results were found by Wicaksono & Suryandari (2021) and Sari & Hanafi (2023).
H6: Arrogance has a positive effect on the indication of financial statement fraud.

The Fraud Hexagon Theory considers collusion as a key element that increases the likelihood of fraud through coordinated agreements that harm stakeholders (Vousinas, 2019). Political connections often provide companies with access to government support, increasing the risk of financial statement manipulation (Wicaksono & Suryandari, 2021). Agency Theory suggests that managers with political ties may act in self-interest or for political gain, worsening agency problems (Jensen & Meckling, 1976). Collusion often involves incentives, such as money or favors, that violate principles of fairness and transparency (Achmad et al., 2022). Such cooperation makes fraud harder to detect (Khamainy et al., 2022). Studies by Hartono & Mukhibad (2024), Allie et al. (2024), Pujoningrum & Wijayanti (2023), Alfarago & Mabrur (2022), Rimadanti et al. (2022), Apsari & Suhartini (2021), Oktaviany & Reskino (2023), Sukmadilaga et al. (2022), Vousinas (2019), Lastanti (2020), and Handoko & Tandean (2021) support the view that collusion and political connections positively influence financial statement fraud.
H7: Collusion has a positive effect on the indication of financial statement fraud.

Methods

This research was conducted on insurance companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. The insurance sector was selected as the research setting due to the significant number of fraud cases reported in this industry throughout the observation period. Given the increasing fraud risk within the sector, investigating the factors influencing fraudulent behavior in insurance companies has become a highly relevant and timely area of study. The population in this study comprises all insurance entities listed on the IDX from 2019 to 2023. The sample was selected using a purposive sampling method based on the following criteria:

a) Insurance companies listed on the Indonesia Stock Exchange between 2019 and 2023
b) Insurance companies whose annual reports were publicly available on the IDX website or the companies' official websites, consecutively from 2019 to 2023
c) Insurance companies that presented their annual reports in Indonesian Rupiah during the 2019–2023 period

The analytical technique employed in this study was binary logistic regression, using STATA software for data processing.

Result and Discussion

Multicollinearity Test Results

The multicollinearity test aims to examine whether there is a correlation among the independent variables in the regression model. To detect the presence of multicollinearity, the Variance Inflation Factor (VIF) value is analyzed. If the VIF value is less than 10 and the correlation coefficient is below 0.9, it indicates that there is no multicollinearity in the model. The results of the multicollinearity test are presented in Table 1.

Table 1
Multicollinearity Test Results

Variable	VIF	Correlation	Remark
Financial Distress (X_1)	4.23	0.236529	No multicollinearity
Pressure (X_2)	3.26	0.307215	No multicollinearity
Opportunity (X_3)	4.50	0.222288	No multicollinearity
Rationalization (X_4)	6.37	0.156992	No multicollinearity
Capability (X_5)	3.04	0.328438	No multicollinearity
Arrogance (X_6)	6.43	0.155640	No multicollinearity
Collusions (X_7)	2.27	0.440937	No multicollinearity

Primary Data, 2025

Based on the results in Table 1, it can be concluded that all independent variables in this study have VIF values below 10 and correlation coefficients well below the threshold of 0.8, indicating that the regression model is free from multicollinearity issues.

Overall Model Fit Test (Logistic Regression)

To assess the overall model fit in logistic regression analysis, one can evaluate the change in the log-likelihood value. A decrease in the log-likelihood value from the fitting of the comparison model to the full model indicates a better regression model fit. In this study, the logistic regression model's goodness-of-fit was tested using STATA software, and the resulting log-likelihood values are presented in Table 2 below:

Table 2
Log-Likelihood Results of Overall Model Fit

		Log *likelihood*			
Iteration	0	38.285213	Iteration	0	-33.740109
	1	38.633245		1	-2.6374088
	2	38.635781		2	-0.04602488

Log *likelihood*			
3	38.635781	3	0
		4	0

Primary Data, 2025

Overall Model Fit Results

The results of the Overall Model Fit test presented in Table 2 show that the log-likelihood value decreased from the initial Fitting Comparison Model to the Full Model block. This decrease indicates that the logistic regression model used in the study has a good fit.

Coefficient of Determination Test (R Square)

The magnitude of the coefficient of determination is indicated by the R Square value in logistic regression models. The R Square test results in this study are presented in the following table:

Table 3
R Square Test Results

FValue (7,52)	Probability F	R Square	Adjusted R Square
412,14	0.000	0.9823	0.9799

Primary Data, 2025

The results shown in Table 3 indicate that the R Square value is 0.9799. This suggests that the variation in financial statement fraud among insurance companies listed on the Indonesia Stock Exchange during the 2019–2023 period can be significantly explained by the variables of financial distress, financial stability, ineffective monitoring, change in auditor, change in director, CEO duality, and political connections by 0.9823 or 98.23%. The remaining 0.0177 or 1.77% is explained by other factors not included in the research model.

Logistic Regression Test Results (Wald Test)

The Wald test in logistic regression is used to examine whether each independent variable has a partial (individual) effect on the dependent variable. This is done by comparing the Wald statistic with the Chi-square critical value at 1 degree of freedom (df = 1) with a 5% level of significance (alpha = 0.05). Alternatively, the significance can be determined by comparing the p-value to the alpha level, where a p-value less than 0.05 indicates that the hypothesis is accepted, meaning that the independent variable has a significant partial effect on the dependent variable. The hypothesis test results are presented in Table 4 below.

Table 4
Logistic Regression Test Results (Wald Test)

Mscore	Coefficient	Std. error	t	P>|t)	Beta
z-score (X_1)	0.0954681	0.3033780	3.15	0.003	0.1193931
achange (X_2)	0.0465998	0.0096958	4.81	0.000	0.1600025
bdout (X_3)	0.1233277	0.0423777	2.91	0.005	0.1138971
cia (X_4)	0.1632242	0.3411080	4.79	0.000	0.2228438
cid (X_5)	0.2021313	0.3007930	6.72	0.000	0.2163645
ceod (X_6)	0.1620649	0.0338780	4.78	0.000	0.2237475
Pc (X_7)	0.1609128	0.0354620	4.54	0.000	0.1260919
_cons	0.2826099	0.0613867	4.60	0.000	

Primary Data, 2025

Based on the results of the logistic regression analysis, as presented in Table 5.11, the structural equation model is formulated as follows:

$$\text{Ln}\,\frac{p}{1-p} = \alpha + \beta 1X1 + \beta 2X2 + \beta 3.X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + \beta 7X7 + \varepsilon$$

$$\text{Ln}\frac{p}{1-p} = 0{,}0954681 + 0{,}0465998\ X1 + 0{,}123377\ X2 + 0{,}1632242\ X3 + 0{,}2021313\ X4 + 0{,}1620649\ X5 + 0{,}1609128\ X6 + 0{,}2826099\ X7 + \varepsilon$$

Where:

- X1=X_1 =X1= Financial Distress (Z-score)
- X2=X_2 =X2= Pressure (Achange)
- X3=X_3 =X3= Opportunity (Bdout)
- X4=X_4 =X4= Rationalization (Cia)
- X5=X_5 =X5= Capability (Cid)
- X6=X_6 =X6= Arrogance (Ceod)
- X7=X_7 =X7= Collusions (Pc)

Interpretation of coefficients:

- The constant value is 0.0954681, indicating that when all independent variables are held at zero, the log odds of financial statement fraud (Y) is 0.0954681.
- β_1 = 0.0465998: A 1% increase in financial distress (X_1) tends to increase the likelihood of financial statement fraud by 0.0465998%, assuming other variables are constant.
- β_2 = 0.123377: A 1% increase in pressure (X_2), proxied by financial stability, tends to increase the likelihood of fraud by 0.123377%.
- β_3 = 0.1632242: A 1% increase in opportunity (X_3), proxied by ineffective monitoring, tends to increase fraud likelihood by 0.1632242%.
- β_4 = 0.2021313: A 1% increase in rationalization (X_4), proxied by change in auditor, tends to increase fraud likelihood by 0.2021313%.
- β_5 = 0.1620649: A 1% increase in capability (X_5), proxied by change in director, tends to increase fraud likelihood by 0.1620649%.
- β_6 = 0.1609128: A 1% increase in arrogance (X_6), proxied by CEO duality, tends to increase fraud likelihood by 0.1609128%.
- β_7 = 0.2826099: A 1% increase in collusions (X_7), proxied by political connections, tends to increase the likelihood of fraud by 0.2826099%.

Hypothesis Testing

Partial hypothesis testing between each independent variable and the dependent variable was conducted using logistic regression analysis with attention to the z-probability value. The decision rule for hypothesis acceptance is as follows: if the z-probability value is less than the 5% significance level ($p < 0.05$) or if the z-calculated > z-table, it indicates that the independent variable has a significant partial effect on the dependent variable. Therefore, the hypothesis is accepted.

Table 5
Hypothesis Test

Variable	Coefficient	Z	Probability Z	Result
Financial Distress (X_1)	0.0954681	3.15	0.003	Significant Positive
Pressure (X_2)	0.0465998	4.81	0.000	Significant Positive
Opportunity (X_3)	0.1233277	2.91	0.005	Significant Positive
Rationalization (X_4)	0.1632242	4.79	0.000	Significant Positive
Capability (X_5)	0.2021313	6.72	0.000	Significant Positive
Arrogance (X_6)	0.1620649	4.78	0.000	Significant Positive
Collusions (X_7)	0.1609128	4.54	0.000	Significant Positive

Primary Data, 2025

Financial Distress on Financial Statement Fraud

The first hypothesis states that financial distress has a significant positive effect on financial statement fraud. Based on the STATA test results, the regression coefficient of financial distress is 0.0954681 with a significance level of 0.003, which is less than 0.05. This indicates that financial distress has a significant positive effect on financial

statement fraud among insurance companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. There were 21 observations identified as experiencing financial distress, 31 observations were in the grey area, and only 8 were considered financially healthy. This implies that the higher the level of financial distress or the closer a company is to bankruptcy, the greater the likelihood of financial statement fraud.

This finding is consistent with the Fraud Hexagon Theory, which identifies pressure—often manifesting as financial distress—as one of the key elements that drive fraudulent behavior. When a company experiences financial difficulties, management may feel pressured to act unethically to maintain financial stability. According to Agency Theory, which explains conflicts of interest between principals (owners) and agents (management), financial pressure may lead agents to act opportunistically, prioritizing their interests over those of the company. Financial distress exacerbates this conflict, as management may feel compelled to manipulate financial reports to maintain corporate image or meet targets set by shareholders. These findings align with studies by Utami & Pusparini (2019), Pratama & Puspitasari (2022), and Putri & Sasongko (2024), which conclude that managers under pressure are held accountable for performance and may distort financial reality.

Pressure on Financial Statement Fraud

The second hypothesis posits that pressure has a significant positive effect on financial statement fraud. The STATA test shows that the regression coefficient for pressure (proxied by financial stability) is 0.0465998 with a significance level of 0.000, less than 0.05. This indicates a significant positive effect of pressure on financial statement fraud in insurance companies listed on the IDX from 2019 to 2023. The lowest financial stability value observed was -0.26 in ASDM in 2020, while the highest was 5.93 in PNLF in 2023. This suggests that higher levels of financial (in)stability correlate with an increased likelihood of financial fraud.

Financial stability, proxied by the ACHANGE ratio (change in total assets), positively affects financial statement fraud. This implies that companies with smaller past assets may feel pressure to show asset growth, which can lead to manipulative financial reporting (Rahmawati, 2024). This result supports the Fraud Hexagon Theory, which highlights that pressure, such as unrealistic targets or financial urgency, influences fraudulent behavior (Vousinas, 2019). In Agency Theory, this reflects the conflict between agents and principals, where agents may act opportunistically to maintain financial appearance at the cost of long-term interests. According to Auditing Standards Statement (SAS) No. 99, economic and operational challenges significantly increase managerial pressure (Achmad et al., 2022). These results align with findings from Achmad et al. (2023), Fathmaningrum & Anggarani (2021), and others, confirming a positive effect of financial stability on financial statement fraud.

Opportunity on Financial Statement Fraud

The third hypothesis proposes that opportunity has a significant positive effect on financial statement fraud. Based on STATA results, the regression coefficient for opportunity (proxied by ineffective monitoring) is 0.1233277 with a significance level of 0.005, below the 0.05 threshold. The lowest proportion of independent commissioners was 0.25 (PNLF, 2022–2023), and the highest was 0.75 (AHAP, 2019–2023), indicating that less effective monitoring is associated with higher fraud risk.

This supports the Fraud Hexagon Theory, which emphasizes that weak internal control systems provide opportunities for fraud (Vousinas, 2019). Ineffective monitoring creates a permissive environment that management can exploit. Agency Theory also explains that weak oversight enables agents to act in their own interest, worsening the conflict with principals (Jensen & Meckling, 1976). Supporting evidence comes from Achmad et al. (2023), Alfarago & Mabrur (2022), and others, confirming that ineffective monitoring significantly influences financial statement fraud.

Rationalization on Financial Statement Fraud

The fourth hypothesis asserts that rationalization has a significant positive effect on financial statement fraud. The STATA results indicate a regression coefficient of 0.1632242 for rationalization (proxied by auditor change), with a significance level of 0.000. Fifteen observations (25%) experienced auditor turnover, while 45 observations (75%) did not. Auditor changes were most frequent in companies such as PNLF (2020–2022), PNIN (2020–2023), and others.

According to the Fraud Hexagon Theory, rationalization refers to the moral justifications individuals use to validate fraudulent behavior (Vousinas, 2019). Auditor changes can create gaps in oversight, especially when the new auditor lacks contextual understanding. Agency Theory suggests that agents may exploit such transitions to

conceal fraud. These findings align with those of Purnama et al. (2022), Fitri et al. (2019), and others, confirming that auditor change and rationalization have a significant positive influence on fraud.

Capability on Financial Statement Fraud

The fifth hypothesis states that capability has a significant positive effect on financial statement fraud. The STATA results show that the regression coefficient for capability (proxied by director change) is 0.2021313 with a significance level of 0.000. Out of all observations, 31 (51.67%) showed no director change, while 29 (48.33%) did. Notable cases include changes in companies such as TUGU (2019–2023), ASMI (2019–2023), and JMAS (2019–2023).

The Fraud Hexagon Theory defines capability as the authority or expertise that enables individuals to execute and conceal fraud (Vousinas, 2019). Agency Theory indicates that newly appointed directors may exploit transitional periods for opportunistic actions. These results are consistent with Sagala & Siagian (2021), Arel et al. (2023), and others, showing that director changes are significantly linked to increased fraud risk.

Arrogance on Financial Statement Fraud

The sixth hypothesis posits that arrogance has a significant positive effect on financial statement fraud. The regression coefficient for arrogance (proxied by CEO duality) is 0.1620649, with a significance level of 0.000. Of the total observations, 25 (41.67%) showed no dual roles, while 35 (58.33%) did, with duality observed in firms such as PNLF, TUGU, and ASMI.

Arrogance, or ego, reflects a belief in being untouchable, and CEO duality facilitates this risk. In Indonesia, such dual roles often stem from familial ties. Agency Theory warns that this can lead to self-serving behavior, impairing shareholder interests. Studies by Siregar & Surbakti (2019), Widyatama & Setiawati (2021), and others confirm a significant correlation between CEO duality and financial statement fraud.

Collusions on Financial Statement Fraud

The seventh hypothesis states that collusion, proxied by political connections, has a significant positive effect on financial statement fraud. The regression coefficient is 0.1609128 with a significance level of 0.000. Based on the dummy variable measurement, 55 observations (91.67%) showed no political connections, while 5 (8.33%) did—all involving TUGU.

According to the Fraud Hexagon Theory, collusion increases the probability of fraud due to coordinated efforts that harm stakeholders (Vousinas, 2019). Political ties provide access to favorable treatment, increasing the risk of financial misrepresentation. Agency Theory suggests that managers with political connections may act in self-interest, worsening agency conflicts. These findings are consistent with Hartono & Mukhibad (2024), Apsari & Suhartini (2021), and others, confirming that political connections and collusion significantly affect financial statement fraud.

Conclusion

1) Financial distress has a positive effect on financial statement fraud among insurance companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. This indicates that the higher the level of financial distress faced by a company, the greater the likelihood of financial statement fraud occurring in insurance firms.
2) Pressure has a positive effect on financial statement fraud among insurance companies listed on the IDX during the 2019–2023 period. Pressure is proxied by financial stability, which suggests that the more unstable or the higher the financial stability ratio, the greater the likelihood of fraudulent financial reporting in the insurance sector.
3) Opportunity has a positive effect on financial statement fraud among insurance companies listed on the IDX during the 2019–2023 period. Opportunity is proxied by ineffective monitoring, indicating that the less effective the company's oversight, the higher the likelihood of fraudulent financial reporting in the insurance sector.
4) Rationalization has a positive effect on financial statement fraud among insurance companies listed on the IDX during the 2019–2023 period. In this study, rationalization is proxied by change in auditor. This implies

that more frequent auditor turnover increases the likelihood of financial statement fraud within insurance companies.

5) Capability has a positive effect on financial statement fraud among insurance companies listed on the IDX during the 2019–2023 period. In this study, capability is proxied by change in director. This indicates that the more frequent the changes in company directors, the greater the opportunity for financial statement fraud in the insurance sector.
6) Arrogance has a positive effect on financial statement fraud among insurance companies listed on the IDX during the 2019–2023 period. In this study, arrogance is proxied by CEO duality. This suggests that companies with a higher degree of CEO duality are more likely to commit financial statement fraud due to reduced checks and balances.
7) Collusions have a positive effect on financial statement fraud among insurance companies listed on the IDX during the 2019–2023 period. In this study, collusions are proxied by political connections. This implies that the more politically connected the board of directors, the higher the likelihood of financial statement fraud within insurance companies.

Managerial Implication

The findings of this study provide theoretical implications that financial distress and the components of the Fraud Hexagon Theory—namely, pressure, opportunity, rationalization, capability, arrogance, and collusions—have a positive effect on financial statement fraud. These results confirm and support both the Fraud Hexagon Theory and Agency Theory.

The Fraud Hexagon Theory identifies six key factors that can trigger fraudulent behavior within an organization: pressure, opportunity, rationalization, capability, arrogance, and collusion. Meanwhile, Agency Theory explains the interactions between company owners (principals) and management (agents), highlighting the potential for conflicts of interest. Financial statement fraud refers to the manipulation of financial reports that can harm various stakeholders. Furthermore, the four financial distress ratios examined in this study highlight conditions that lead companies into financial difficulties, ultimately affecting overall financial performance.

This study offers practical implications for insurance companies listed on the Indonesia Stock Exchange (IDX), particularly regarding the factors that should be carefully monitored to minimize the risk of financial statement fraud. These factors include financial distress, pressure, opportunity, rationalization, capability, arrogance, and collusions. By actively managing and mitigating these elements, companies in the insurance sector can reduce the likelihood of fraudulent financial reporting and improve governance practices.

References

Achmad, F., Prambudia, Y., & Rumanti, A. A. (2023). Sustainable tourism industry development: A collaborative model of open innovation, stakeholders, and support system facilities. *IEEE Access*, *11*, 83343-83363.

Achmad, T., Ghozali, I., Helmina, M. R. A., Hapsari, D. I., & Pamungkas, I. D. (2022). Detecting fraudulent financial reporting using the fraud hexagon model: Evidence from the banking sector in Indonesia. *Economies*, *11*(1), 5.

Alfarago, D., & Mabrur, A. (2022). Do Fraud Hexagon Components Promote Fraud in Indonesia?. Etikonomi, 21(2), 399-410.

Allie, R., Murtanto, & Noor, I. N. (2024). Factors That Influence of Fraud Hexagon on Fraudulent Financial Statements with Audit Committee as Moderating Variable. *Jurnal Akuntansi Trisakti, 11*(2),

Apsari, A. K., & Suhartini, D. (2021). Religiosity as Moderating of Accounting Student Academic Fraud with a Hexagon Theory Approach. *Accounting and Finance Studies, 1*(3), 212–231.

Arel, B., Tomas, M. J., & Stark, L. (2023). The Effect of Fraud Diamond Capability Measures on Fraud Occurrence. *Journal of Forensic Accounting Research, 8*(1), 141–159.

Aviantara, R. (2021). The Association Between Fraud Hexagon and Government's Fraudulent Financial Report. *Asia Pacific Fraud Journal, 6*(1), 26.

Carla, C., & Pangestu, S. (2021). Deteksi Fraudulent Financial Reporting Menggunakan Fraud Pentagon. Ultimaccounting: *Jurnal Ilmu Akuntansi, 13*(1), 125-142.

Chantia, D., Guritno, Y., & Sari, R. (2021). Detection of Fraudulent Financial Statements : Fraud Hexagon S.C.C.O.R.E Model Approach. *Business Management, Economic, and Accounting National Seminar, 2*(3), 594-613.

Cressey, D. R. (1953). Other people's money; a study of the social psychology of embezzlement.

Fathmaningrum, E. S., & Anggarani, G. (2021). Fraud Pentagon and Fraudulent Financial Reporting: Evidence from Manufacturing Companies in Indonesia and Malaysia. *Journal of Accounting and Investment, 22*(3), 625–646.

Fitri, F. A., Syukur, M., & Justisa, G. (2019). Do The Fraud Triangle Components Motivate Fraud in Indonesia. *Australasian Accounting Business and Finance Journal, 13*(4).

Fitriyah, R., & Novita, S. (2021). Fraud Pentagon Theory for Detecting Financial Statement Fraudulent. *Jurnal Riset Akuntansi Kontemporer, 13*(1), 20–25.

Gepp, A., Kumar, K., & Bhattacharya, S. (2024). Taking the hunch out of the crunch: A framework to improve variable selection in models to detect financial statement fraud. *Accounting and Finance, 64*(2), 1569–1588.

Handoko, B. L., & Tandean, D. (2021, February). An analysis of fraud hexagon in detecting financial statement fraud (empirical study of listed banking companies on Indonesia stock exchange for period 2017-2019). In *ACM International Conference Proceeding Series* (pp. 93-100).

Hartadi, B. (2022). Pengaruh Fraud Hexagon terhadap Fraudulent Financial Statements pada Perusahaan Badan Usaha Milik Negara Indonesia yang Terdaftar di Bei pada Tahun 2018-2021. *Jurnal Pendidikan Tambusai*, *6*(2), 14883-14896.

Hartono, F., & Mukhibad, H. (2024). Analisis Pengaruh Perspektif Fraud Hexagon terhadap Kecurangan Laporan Keuangan dengan Kualitas Komite Audit sebagai Variabel Moderasi. *Journal of Accounting, Economics, and Business Education*, 196-208.

Irwandi, S. A., Ghozali, I., & Pamungkas, I. D. (2019). Detection fraudulent financial statement: Beneish M-score model. *WSEAS Transactions on Business and Economics*, *16*(1), 271-281.

Jannah, V. M., Andreas, & Rasuli. (2021). Pendekatan Vousinas Fraud Hexagon Model dalam Mendeteksi Kecurangan Pelaporan Keuangan. *Studi Akuntansi Dan Keuangan Indonesia, 4*(1), 1–16.

Jensen, M., & Meckling, W. (1976). Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure. Journal of Financial Economics.

Khamainy, A. H., Amalia, M. M., Cakranegara, P. A., & Indrawati, A. (2022). Financial Statement Fraud: The Predictive Relevance of Fraud Hexagon Theory. *Journal of Accounting and Strategic Finance, 5*(1), 110–133.

Lailatuddzikriyyah, M. (2021). Mendeteksi Potensi Kecurangan Laporan Keuangan Dengan Analisis Fraud Hexagon (Studi Empiris Pada Perusahaan Kontruksi Bangunan Yang Terdaftar Di Bei Tahun 2017-2019).

Larum, K., Zuhroh, D., & Subiyantoro, E. (2021). Fraudlent Financial Reporting: Menguji Potensi Kecurangan Pelaporan Keuangan dengan Menggunakan Teori Fraud Hexagon. *AFRE Accounting and Financial Review*, *4*(1), 82-94.

Lastanti, H. S. (2020). Role of Audit Committee in the fraud pentagon and financial statement fraud. *International Journal of Contemporary Accounting, 2*(1), 85 102.

Lauwrens, A. O., & Yanti, H. B. (2022). Pengaruh Elemen Fraud Pentagon Terhadap Financial Statement Fraud dengan Komite Audit Sebagai Moderasi. *COMSERVA Indonesian Jurnal of Community Services and Development, 2*(4), 966–975.

Liani, A. (2024). *Pengaruh Kebijakan Dividen Dan Struktur Modal Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan LQ 45 Yang Terdaftar di Bursa Efek Indonesia Pada Tahun 2020-2023)* (Doctoral dissertation, UNIVERSITAS SANGGA BUANA YPKP).

Lionardi, M., & Suhartono, S. (2022). Pendeteksian Kemungkinan Terjadinya Fraudulent Financial Statement menggunakan Fraud Hexagon. *Jurnal Khatulistiwa Informatika*, *9*(1), 29-38.

Machmuddah, Z., & Pamungkas, I. D. (2019). The effect of auditor switching and managerial ownership on fraudulent financial statement. *WSEAS Transactions on Business and Economics*, *16*, 306-315.

Mardiana, A. (2021). Pengaruh Financial Distress Terhadap Financial Statement Fraud Yang Dimoderasi Oleh Corporate Governance. *Contemporary Journal on Business and Accounting*, *1*(1), 72-88.

Mardiana, A. (2021). The impact of corporate reputation on the cost of equity as mediated by earnings quality. *ATESTASI: Jurnal Ilmiah Akuntansi*, *4*(2), 217-229.

Maryani, N., Natita, R. K., Rudiana, R., & Herawati, T. (2022). Fraud hexagon elements as a determination of fraudulent financial reporting in financial sector services. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *5*(1), 4300-4314.

Meidijati, M., & Amin, M. N. A. (2022). Detecting fraudulent financial reporting through hexagon fraud model: Moderating role of income tax rate. *International Journal of Social and Management Studies*, *3*(2), 311-322.

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. *Kompak: Jurnal Ilmiah Komputerisasi Akuntansi*, *14*(1), 61-72.

Murtanto, M., & Sandra, D. (2019). Pengaruh Fraud Diamond Dalam Mendeteksi Tingkat Accounting Irregularities Dengan Komite Audit Sebagai Variabel Moderating. *Media Riset Akuntansi, Auditing & Informasi*, *19*(2), 209-226.

Nadziliyah, H., & Primasari, N. S. (2022). Analisis Fraud Hexagon Terhadap Financial Statement Fraud Pada Perusahaan Sektor Infrastruktur, Utilitas Dan Transportasi. *Accounting and Finance Studies*, *2*(1), 21-39.

Oktaviany, F., & Reskino, R. (2023). Financial Statement Fraud: Pengujian Fraud Hexagon Dengan Moderasi Audit Committee. *Jurnal Bisnis Dan Akuntansi*, *25*(1), 91-118.

Pratama, R., & Puspitasari, W. (2022). Pengaruh Financial Distress terhadap Kecurangan laporan Keuangan. *Journal Ekonomi Trisakti, 2*(2), 703-718.

Preicilia, C., Wahyudi, I., & Preicilia, A. (2022). Analisa kecurangan laporan keuangan dengan perspektif teori Fraud Hexagon. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, *5*(3), 1467-1479.

Pujoningrum, K., & Wijayanti, R. (2023). Detecting Financial Statement Fraud through Hexagon Theory with Audit Committee as Moderating in Mining Companies. In *Proceedings International Conference on Sustainable Innovation (ICoSI)* (Vol. 3, No. 2, pp. 158-166).

Purnama, D., Mutiarani, G. M., Yuanita, M., & Lucyanda, J. (2022). Pengujian Kecurangan Laporan Keuangan Menggunakan Fraud Hexagon Model. *Media Riset Akuntansi, 12*(1), 109–128

Purnanandam, A. (2008). Financial distress and corporate risk management: Theory and evidence. *Journal of Financial Economics*, *87*(3), 706-739. https://doi.org/10.1016/j.jfineco.2007.04.003

Purnaningsih, N. K. C. (2022). Fraudulent Financial Reporting Analysis on Non-Financial Companies Listed on IDX in Hexagon Fraud Perspective. *Budapest International Research and Critics Institute (BIRCI-Journal), 5*(2), 11331-11343.

Putri, N. N., & Sasongko, N. (2024). Analisis Pengaruh Financial Distress dan Fraud Hexagon Terhadap Indikasi Terjadinya Financial Statement Fraudulent Pada Masa Pandemi COVID-19. *Innovative: Journal Of Social Science Research*, *4*(3), 11220-11233.

Rahmasari, L., & Prasetyo, T. J. (2023). Indication of Financial Statement Fraud in Companies Experiencing Financial Distress. In *International Conference of Economics, Business, and Entrepreneur (ICEBE 2022)* (pp. 94-101). Atlantis Press.

Rahmawati, D. (2024). *Pengaruh Financial Stability, External Presure Dan Financial Target Terhadap Fraudulent Financial Statement (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia (BEI) Periode 2020-2022)* (Doctoral dissertation, Universitas Malikussaleh).

Rezaee, Z. (2005). Causes, consequences, and deterence of financial statement fraud. *Critical perspectives on Accounting*, *16*(3), 277-298. https://doi.org/10.1016/S1045-2354(03)00072-8

Rimadanti, S., Santoso, A., & Sulistyawati, A. I. (2022). The Role of Pentagon Fraud in Detecting Fraudulent Financial Statements. *Golden Ratio of Finance Management*, *2*(2), 87-97.

Rizkiawan, M., & Subagio, S. (2022). Analisis Fraud Hexagon dan Tata Kelola Perusahaan Atas Adanya Kecurangan Dalam Laporan Keuangan. *Integritas: Jurnal Antikorupsi*, *8*(2), 269-282.

Sagala, S. G., & Siagian, V. (2021). Pengaruh fraud hexagon model terhadap fraudulent laporan keuangan pada perusahaan sub sektor makanan dan minuman yang terdaftar di BEI Tahun 2016-2019. *Jurnal Akuntansi*, *13*(2), 245-259.

Sánchez-Aguayo, M., Urquiza-Aguiar, L., & Estrada-Jiménez, J. (2021). Fraud detection using the fraud triangle theory and data mining techniques: A literature review. *Computers*, *10*(10), 121.

Sari, M. P., Kiswanto, L. V., Rahmadani, H. K., & Pamungkas, I. D. (2020). Detection fraudulent financial reporting and corporate governance mechanisms using fraud diamond theory of the property and construction sectors in Indonesia. *Humanit. Soc. Sci. Rev*, *8*(3), 1065-1072.

Sari, M. P., Pramasheilla, N., Suryarini, T., & Pamungkas, I. D. (2020). Analysis of fraudulent financial reporting with the role of KAP big four as a moderation variable: Crowe's fraud's pentagon theory. *International Journal of Financial Research*, *11*(5), 180-190.

Sari, S. P., & Hanafi, M. M. (2023). Detecting Of Probability Of Financial Statement Fraud Using Fraud Hexagon Model: Evidence from Indonesian Public Companies. *Tax Accounting Applied Journal*, *2*(1), 24-39..

Septiningrum, K. E., & Mutmainah, S. (2022). Analisis Faktor Yang Mempengaruhi Terjadinya Financial Statement Fraud: Perspektif Fraud Hexagon Theory. *Diponegoro Journal of Accounting, 11*(3), 1–13.

Siregar, A., & Surbakti, A. S. (2019). Analisis Pengaruh Whistleblowing System dan Rapat Komite Audit terhadap Jumlah Kecurangan. *BALANCE: Jurnal Akuntansi, Auditing Dan Keuangan*, *16*(1), 21-21.

Situngkir, N. C. (2020). Detecting Fraudulent Financial Reporting Using Fraud Score Model and Fraud Pentagon Theory: Empirical Study of Companies Listed in the L.Q. 45 Index. *The Indonesian Journal of Accounting Research, 23*(3), 373–410.

Sukmadilaga, C., Winarningsih, S., Handayani, T., Herianti, E., & Ghani, E. K. (2022). Fraudulent financial reporting in ministerial and governmental institutions in Indonesia: An analysis using hexagon theory. *Economies*, *10*(4), 86.

Sumbari, S., Kamaliah, K., & Fitrios, R. (2023). Analisis Model Fraud Hexagon Dalam Mendeteksi Potensi Kecurangan Pada Laporan Keuangan. *Jurnal Kajian Akuntansi Dan Bisnis Terkini, 4*(1), 179–196.

Sun, J., Li, H., Huang, Q. H., & He, K. Y. (2014). Predicting financial distress and corporate failure: A review from the state-of-the-art definitions, modeling, sampling, and featuring approaches. *Knowledge-based systems*, *57*, 41-56. https://doi.org/10.1016/j.knosys.2013.12.006

Tragouda, M., Doumpos, M., & Zopounidis, C. (2024). Identification of fraudulent financial statements through a multi-label classification approach. *Intelligent Systems in Accounting, Finance and Management, 31*(2), 1–19.

Utami, E. R., & Pusparini, N. O. (2019). The Analysis of Fraud Pentagon Theory and Financial Distress for Detecting Fraudulent Financial Reporting in Banking Sector in Indonesia (Empirical Study of Listed Banking Companies on Indonesia Stock Exchange in 2012-2017). In *5th International Conference on Accounting and Finance (ICAF 2019)* (pp. 60-65). Atlantis Press.

Vousinas, G. (2019). Advancing Theory of Fraud: The S.C.O.R.E. Model. *Journal of Financial Crime, 136*(4), 1-18.

Wicaksono, A., & Suryandari, D. (2021). The analysis of fraudulent financial reports through Fraud Hexagon on public mining companies. *Accounting Analysis Journal*, *10*(3), 220-228.

Widyatama, W., & Setiawati, L. W. (2020). Analisis pengaruh fraud pentagon theory terhadap fraudulent financial reporting pada perusahaan perbankan yang terdaftar di bursa efek indonesia periode 2014–2019. *BALANCE: Jurnal Akuntansi, Auditing Dan Keuangan*, *17*(1), 22-47.

Wijayanti, D. M., Senjani, Y. P., & Farah, W. (2024). The role of Machiavellian personality, altruistic personality, religiosity, whistleblowing system, and accounting firm size in mitigating fraud intention. *Journal of Financial Crime, 31*(1), 119–134.

Winata, I. D. G. A., & Budiasih, I. G. A. N. (2022). Profitability moderate the effect of operating capacity and intellectual capital on financial distress. *International Journal of Business, Economics and Management*, *5*(3), 151-157. https://doi.org/10.21744/ijbem.v5n3.1922

Wolfe, D. T., & Hermanson, D. R. (2004). The fraud diamond: Considering the four elements of fraud.

Wulandari, D., & Ali, S. (2023). Analysis Of Fraud Hexagon Theory of Financial Fraudulent Reporting Using F-Score Model. *JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, *7*(1), 168-182.