EDUCORETAX
Volume 5 No.7, 2025

THE EFFECT OF PRESSURE, OPPORTUNITY, RATIONALIZATION, CAPABILITY, ARROGANCE, AND COLLUSION ON FRAUDULENT FINANCIAL STATEMENT

Shifa Nurhaliza Az Zahra[1)], Ferry Irawan[2)*]

[1)] 2110112114@mahasiswa.upnvj.ac.id, **Universitas Pembangunan Nasional Veteran Jakarta**
[2)] ferryirawan@upnvj.ac.id, **Universitas Pembangunan Nasional Veteran Jakarta**
[*]Corresponding author

Abstract
The financial statement provides financial information presented by a company for a specific period to assess its financial condition, capabilities, and operational performance. This information is valuable for both external and internal stakeholders. Thus, it is crucial for financial statements to be presented accurately and free from errors. However, manipulation or fraud in financial reporting remains a common issue. This study examines fraudulent financial statement in state-owned enterprises (BUMN) from 2018 to 2022 using the hexagon fraud theory. A quantitative approach is employed, utilizing secondary data from annual reports. The study uses 100 data from 20 companies selected through purposive sampling over the 2018–2022 period. Data were analyzed using panel data analysis with STATA software. The findings indicate that pressure (X1), opportunity (X2), rationalization (X3), arrogance (X5), and collusion (X6) have no significant effect on fraudulent financial reporting, while capability (X4) has a significant negative effect.
Keywords: BUMN, Fraudulent financial statement, Fraud hexagon

INTRODUCTION

Economic uncertainty faced from period to period pressures entities to create financial statements that reflect their ability to sustain operations (going concern) (Yusuf et al., 2023). Fluctuations in food prices and other production costs during the 2018–2024 period demonstrate significant uncertainty (Jamilatuzzahro & Suditomo, 2024). Additionally, many entities experienced a significant decline in revenue, profitability, and liquidity due to economic pressures following the COVID-19 pandemic. This raises concerns about whether entities can continue their operations (Fauzi, 2021). However, companies strive to maintain their going concern, which may encourage fraudulent behavior through the manipulation of financial statements.

Financial statements serve as tools for companies to communicate their financial conditions, performance, and operational activities. Typically, financial statements are presented for one operational period or year. However, companies often also provide quarterly financial statements for monitoring and controlling ongoing operations. Financial statements are created to benefit both internal and external parties. Internal parties use the information to guide management decisions related to internal policies. Meanwhile, external parties (such as investors, creditors, customers, and the government) use the financial information as a basis for decisions regarding investments, credit provision, contract extensions, and taxation (Apriliana & Agustina, 2017). Financial statements also act as a form of accountability from management to stakeholders. Therefore, the content of financial statements is expected to be accurately presented and free from errors.

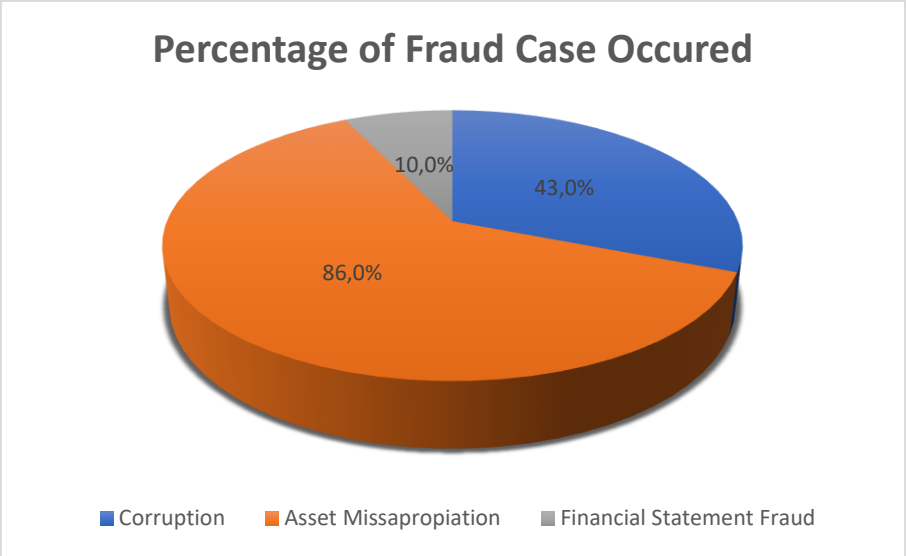

Figure 1. Percentage of Fraud Case Occurred
Source: Survey Fraud, ACFE 2020

According to survey by the Association of Certified Fraud Examiners (ACFE) in 2020, there are three main categories of fraud: corruption, asset misappropriation, and financial statement fraud. The survey revealed that asset misappropriation is the most common type of fraud, with a percentage of 86%, followed by corruption at 43%, and financial statement fraud at 10%. Although financial statement fraud occurs less frequently, it causes the greatest losses. The average loss per case of financial statement fraud is $954,000, significantly higher than the average losses caused by asset misappropriation ($100,000) and corruption ($200,000) (ACFE, 2020). The low percentage of financial statement fraud is likely due to many such crimes remaining undiscovered in Indonesia (Sumbari et al., 2023).

Cases of manipulation or fraud in financial reporting continue to occur frequently (Lastanti et al., 2022). Management holds significant responsibility for monitoring and providing financial statements that comply with applicable regulations accurately. However, some cases reveal the role of management in manipulating financial statements to enhance the company's performance. Management aims to receive positive assessments from external parties, especially shareholders. Good company performance aligns with shareholders' expectations. If performance improves annually, management receives rewards in the form of maximum compensation for their achievements (Kusumosari & Solikhah, 2021). This situation relates to agency theory proposed by Jensen & Meckling (1976), management and shareholders have differing interests. Management, as the agent, has more information and broader access to the entity's internal conditions compared to shareholders (principals). This allows management to withhold information deemed unimportant to principals, which may lead to fraudulent behavior. Consequently, many manipulation cases are conducted internally, including by management.

Financial statement fraud occurred at PT Asuransi Jiwasraya, which engaged in window dressing or manipulation to embellish financial statements in 2018. This became evident when the company announced its inability to fulfill payments. Subsequently, the Supreme Audit Agency (BPK) revealed that the State Loss Calculation (PKN) from this case amounted to IDR 16.81 trillion. Furthermore, PT Jiwasraya was involved in collusion with stock sellers during transactions, causing the stock price to rise significantly during purchases and drop afterward(Ali, 2022). Other cases of financial statement manipulation include PT PLN (2018), PT Garuda Indonesia (2019), and PT Asabri (2020). In 2024, two state-owned enterprises, PT Waskita Karya and PT Indofarma, were suspected of manipulating financial statements, though

these cases remain under investigation (Ramadhani, 2023). State-owned enterprises in Indonesia are used by the government to manage national economic policies. Unfortunately, several fraud cases involving state-owned enterprises have diminished trust among investors, creditors, and the public (Kirana et al., 2023).

LITERATURE REVIEW

Agency Theory

Agency theory was introduced by Michael C. Jensen and William H. Meckling in 1976. This theory describes the agency relationship between shareholders (principals), who delegate their tasks, and management (agents), who execute the delegated work. It explains the contractual relationship between principal and agents in managing a company. Principals appoint agents as their representatives to run the company and make the best decisions for the principal (Takakobi, 2022). Agent are responsible for performing all assigned tasks and duties and must account for their performance to the principals. In return, agents receive equivalent compensation if their performance reports are favorable over a specific period.

Agents, who manage all internal tasks of the company, possess more complete information about the company compared to principals (Irawan et al., 2019). Agency theory was introduced by Michael C. Jensen and William H. Meckling in 1976. This theory describes the agency relationship between shareholders (principals), who delegate their tasks, and management (agents), who execute the delegated work. It explains the contractual relationship between principal and agents in managing a company. Principals appoint agents as their representatives to run the company and make the best decisions for the principal (Takakobi, 2022). Agent are responsible for performing all assigned tasks and duties and must account for their performance to the principals. In return, agents receive equivalent compensation if their performance reports are favorable over a specific period.

The main issue in agency conflicts is that principals cannot ascertain whether agents act honestly and in accorandce with their expectations. Conflicts of interest may occur as agents do not always act in alignment with the principals' goals. This behavior by agents results in the emergence of agency costs. Agency costs are expenses incurred by principals to monitor and supervise the agents' performance. These costs are categorized into three types: monitoring costs, bonding costs, and residual losses. Agents may act inconsistently with the principals' interests to project a favorable image of their performance, withholding certain information from the principals.

Fraudulent Financial Statement

This study employs a dependent variable, namely fraudulent financial statements. According to the Financial Accounting Standards (SAK), financial statement fraud refers to deliberate actions by management, employees, or other parties to manipulate, falsify, or omit financial information. The purpose is to mislead financial statement users about an entity’s financial position, performance, and cash flows. Fraudulent financial statements involve intentional fraud through the manipulation of financial reports by individuals or groups to deceive users of the statements. Generally, fraud is carried out to mislead financial statement users by presenting favorable and improved company performance, influencing decision-making processes. According to Auditing Standards (SA), fraudulent financial reporting can take several forms, including manipulation, falsification, or alteration of accounting records; omission or misrepresentation of transactions, events, or significant information; and the use of incorrect assumptions or inappropriate estimates in financial reporting.

In 1999, Beneish developed the M-Score model to detect the potential for fraudulent financial statements by combining various financial ratios and variables empirically proven to be associated with financial statement manipulation. The M-Score is based on the Beneish

model, created by Professor Messod Beneish. Using the M-Score model, researchers can identify companies with a higher likelihood of engaging in manipulation, based on patterns observed in financial variables such as shifts in sales, profit margins, or changes in accruals (Beneish, 1998).

Later, Dechow et al. (2011) refined the Beneish M-Score model into the F-Score model. This model includes two components: accrual quality and financial performance (Dechow et al., 2011). The first component, accrual quality, reflects how accrual-based accounting in financial statements can allow management to adjust information to achieve desired profit levels. In profit calculations, accrual amounts include discretionary accruals and non-discretionary accruals. Discretionary accruals are accrual components arising from earnings management conducted by managers (Rini & Achmad, 2012). Therefore, accrual components are particularly vulnerable to manipulation.

The second component is financial performance, which can indicate the occurrence of fraudulent financial statements. This is because financial performance is one of the main factors that attract the attention of investors. As such, fraud is often committed to present a positive picture of a company's financial performance. Financial performance serves as a set of performance measures across various dimensions and examines whether managers deliberately misstate information to conceal poor entity performance (Beneish, 1998; Dechow et al., 2011). Consequently, the F-Score model evaluates both accrual quality and financial performance.

Fraud Hexagon Theory

The fraud hexagon theory is the latest extension of fraud theories, following the fraud pentagon. This theory was introduced by Georgios L. Vousinas in 2019. Vousinas added an additional factor that can lead to fraud: collusion. Collusion refers to fraudulent activities carried out through an agreement to deceive a party, involving more than two individuals, with the aim of obtaining personal or group benefits (Vousinas, 2019). Below is an illustration of the fraud hexagon theory:

Figure 2. Fraud Hexagon Theory
Source: Vousinas (2019)

The first factor, pressure, refers to the external or internal stresses individuals face, such as financial difficulties, personal problems, or the pressure to meet performance targets, which might push them to commit fraud. Opportunity is the second factor, highlighting the circumstances in which fraud becomes possible. A lack of effective internal controls, weak supervision, or the absence of strict regulations can create an environment where fraudulent actions are more likely to occur. The third factor, rationalization, involves the process by which individuals justify their fraudulent actions to themselves. This can include reasoning that the company owes them, the fraud is harmless, or they are merely “borrowing” the money.

Capability is the fourth element and refers to an individual's position within the organization and their ability to manipulate situations to their advantage. People in positions of authority or those with access to sensitive information may have a greater capacity to commit

fraud without being detected. The fifth factor, arrogance, reflects an attitude of entitlement or superiority, where individuals feel they are above the rules and act without fear of consequence.

Lastly, collusion involves two or more individuals working together to carry out fraudulent acts, which often makes it more difficult to detect. When multiple people conspire to deceive, it amplifies the opportunity and rationalization aspects, further shielding the fraudulent behavior from scrutiny. Together, these six factors form a comprehensive view of the psychological and situational dynamics behind fraudulent activities in organizations. Understanding the Fraud Hexagon Theory helps in identifying areas of vulnerability and implementing strategies to prevent fraud.

The Effect of Pressure on Fraudulent Financial Statement

Pressure refers to the conditions and situations that drive individuals to commit fraud. Typically, pressure arises from financial or non-financial needs and problems. This study uses financial stability as a proxy for pressure. The financial stability factor falls under the category of pressure, which arises when management faces demands to demonstrate that the entity has successfully managed its assets optimally to achieve adequate profits and deliver high returns to investors (Septriani & Desi, 2018). This is done to demonstrate the entity's financial condition as stable and functioning well.

Financial stability is a condition where a company's financial state remains stable despite facing various economic threats (Kusumosari & Solikhah, 2021). If an entity faces prolonged economic threats, it can result in the entity's financial condition becoming unstable. Meanwhile, the total assets owned by the entity serve as a primary attraction for investors, creditors, and stakeholders. If the total assets decrease or even become negative, it may cause stakeholders to lose interest, as they perceive the entity's financial condition to be unstable (Septriani & Desi, 2018). Therefore, management utilizes financial statements as a tool to conceal the instability of the entity's financial situation through fraudulent actions.

The relationship between financial stability and agency theory arises due to the differing interests between management (agents) and stakeholders (principals). These differences create pressure on management to meet and maintain the expectations of the principals. One of the pressures faced by management is ensuring the financial stability of the entity. This pressure can drive management to commit fraud by manipulating financial statements. Such manipulation is carried out to present the financial reports as being in good and stable condition. Research by Kusumawati et al. (2022), Achmad et al. (2022), Imtikhani & Sukirman (2021), Tarjo et al. (2021), and Oktavia et al. (2022) revealed that pressure (financial stability) positively influences the detection of fraud in financial statements. Therefore, the hypothesis to be tested is:

H1: Pressure has a positive effect on fraudulent financial statement

The Effect of Opportunity on Fraudulent Financial Statement

Opportunity refers to a condition that allows fraudulent acts or abuses to occur within an entity. This study uses ineffective oversight as a proxy for opportunity. Ineffective oversight arises when internal control systems are not operating effectively (Septriani & Desi, 2018). This often due to a lack of properly established monitoring mechanisms. Insufficient oversight creates opportunities for fraud to go undetected. Weak internal controls, poor discipline, limited information access, ineffective audit mechanisms, and apathetic attitudes create opportunities for fraudulent activities (Rae & Subramaniam, 2008). According to Indonesia's Financial Services Authority Regulation (POJK) No. 33/POJK.04/2014 on the composition of the board of commissioners, issuers must have at least 30% of independent commissioners from the total number of commissioners. This implies that a higher proportion of independent commissioners leads to more effective oversight, reducing the likelihood of fraud.

Ineffective oversight can be described as a condition where monitoring mechanisms fail to mitigate conflicts of interest between management and owners (Jensen & Meckling, 1976). The asymmetry in information breadth and detail between management and owners poses challenges, as owners lack comprehensive internal information about the company. Effective monitoring requires complete information, enabling owners to supervise management effectively. When monitoring mechanisms are inadequate, then fail to detect and control management actions properly.

Research conducted by Lastanti et al. (2022) and Nurbaiti & Putri (2023) indicates that ineffective oversight has a negative and significant effect on financial statement fraud. Based on this, the hypothesis to be tested is as follows:

H2: Opportunity has a negative effect on fraudulent financial statement

The Effect of Rasionalization on Fraudulent Financial Statement

Rationalization refers to the justification an individual makes after committing fraud or a wrongdoing. This study uses auditor rotation as a proxy for rationalization. An auditor provides an objective assessment of an organization, and when a poor evaluation is made, it influences the audit results and the risk level for management (Indriani & Rohman, 2022). Therefore, auditor rotation can be used as a mechanism to cover up fraudulent financial reporting within an organization. The process of changing auditors or public accounting firms (KAP) is often seen as an effort by the entity to rationalize manipulative actions. The transition period during auditor rotation provides an opportunity for the organization to justify or conceal any manipulative actions carried out (Setyono et al., 2023). Hence, the higher the rate of auditor rotation within an entity, the greater the likelihood of fraudulent financial statement.

Information asymmetry can trigger rationalization behavior from agents. Internal parties with access to comprehensive information, the agents, justify their fraudulent actions. Agents rationalize fraudulent actions by frequently changing auditors within the company. This is done to hide the agent's wrongdoing from all parties, especially the principal. Additionally, auditor rotation introduces a period of stress, which can be used as a justification for fraudulent actors (Imtikhani & Sukirman, 2021). According to agency theory, management and the principal have differing interests, leading to conflicts of interest arising from auditor changes. Such rotations can worsen the conflict if the principal and agent have differing opinions regarding the auditor's change.

This relationship is supported by research from Setyono et al. (2023a), Kirana et al. (2023), Nurbaiti & Putri (2023), Inawati & Arief (2022), and Evana et al. (2019), which shows that auditor rotation, as a rationalization factor, has a positive impact on financial statement fraud. Based on these findings, the hypothesis to be tested is as follows:

H3: Rasionalization has a positive effect on fraudulent financial statement

The Effect of Capability on Fraudulent Financial Statement

Capability refers to an individual’s ability, skills, and capacity to perform tasks or achieve specific goals. This study uses the replacement of directors as a proxy for capability. Director replacement is considered a factor of capability in fraud because directors hold the position and capacity to engage in fraudulent activities. Changes in the board of directors can create a less conducive environment within the entity due to the changes in the company culture that occur when the organizational structure shifts. This less conducive environment can lead to a stress period, which in turn increases the likelihood of fraud. Stress periods arise because new directors require time to adjust to the company environment, which reduces the overall effectiveness of the company (Septriani & Handayani, 2018). Consequently, such a situation increases the possibility of fraud through financial statement manipulation.

Agency theory emphasizes that agents are tasked with managing the company for the benefit of the principal, but agents often prioritize their personal interests over those of the

principal, leading to unmet expectations. This results in changes in the board of directors within the organization. The replacement of directors is often a response to conflicts of interest arising from these differences. It is hoped that the change will improve the entity's performance from its prior state. Additionally, the replacement of directors may indicate fraudulent behavior, where the company seeks to remove the previous directors in order to cover up existing fraud. The new directors require time to understand the company's conditions and information, which can be exploited to avoid detection of fraud (Fabiolla et al., 2021).

The more frequent the replacement of directors, the higher the likelihood of fraudulent financial statements occurring. Conversely, if the replacement of directors is infrequent, the likelihood of fraudulent financial statements decreases. This is consistent with the research of Sihombing & Rahardjo (2014) and Evana et al. (2019). Therefore, the hypothesis to be tested is:

H4: Capability has a positive effect on fraudulent financial statement

The Effect of Arogance on Fraudulent Financial Statement

Arrogance is an attitude of feeling superior in one's position or role. In this study, CEO duality is used as a proxy for arrogance. A CEO who holds dual or multiple positions tends to display a sense of superiority that can influence company policies (Imtikhani & Sukirman, 2021). CEO with dual roles within an entity may feel a sense of freedom to commit fraud. The dual positions held by the CEO can create a feeling of dominance over the company, which may reduce the independence of the board of directors (Sasongko & Wijayantika, 2019).

This aligns with agency theory, where if the CEO holds more than one power, it can lead to arrogance because they feel empowered due to their dual positions. Such a CEO is more likely to exploit the power they possess to commit fraud that benefits themselves and harms others. A CEO with dual roles tends to prioritize their personal interests over those of the principal, increasing the conflict of interest between the agent and the principal.

According to the OJK Regulation No. 55/POJK.03/2016, an entity is not allowed to have a CEO who also serves as a commissioner. However, Indonesia still applies a family-based system in appointing the board of directors and commissioners, which makes CEO duality possible (Ratnasari & Solikhah, 2019). Maka dari itu, perusahaan dianggap mempunyai CEO *duality* jika mempunyai Therefore, a company is considered to have CEO duality if there is a family relationship with the board of commissioners or if the CEO holds another position within the entity (Kusumosari & Solikhah, 2021). It can be concluded that if a company's CEO holds more than one position or has a family connection with the board of commissioners, the likelihood of fraudulent financial statements increases. On the other hand, if the CEO only holds one position and does not have a family relationship with the board of commissioners, the likelihood of fraudulent financial statements decreases.

his statement is supported by research from Tarjo et al. (2021), Sumbari et al. (2023), and Imtikhani & Sukirman (2021) which show that arrogance (CEO duality) significantly and positively influences fraudulent financial statements. Therefore, the hypothesis to be tested is:

H5: Arogance has a positive effect on fraudulent financial statement

The Effect of Collusion on Fraudulent Financial Statement

Collusion refers to organized cooperation to commit fraud through an agreement between two or more individuals (Vousinas, 2019). According to Alfarisi (2010), collusive behavior in the market can be seen through high levels of market concentration and profits, as if entities involved possess a high level of efficiency in setting prices well above their marginal costs. Market concentration levels indicate the extent of market share. High market concentration suggests that fewer companies control the market, thus reducing the cost of collusion because coordination becomes easier. Collusion can create a non-competitive market, where producers

become less efficient and can raise prices above their actual costs, leading to higher equilibrium prices than their cost structure (Mulyaningsih, 2017).

A concentrated market tends to provide opportunities for firms to engage in collusion to increase profits, such as by setting prices above marginal costs, thus appearing to reflect high efficiency. This practice is more likely to occur because large firms have the market power to secretly cooperate in raising prices, resulting in higher profits. In this situation, companies in the market appear more efficient because they record high profits, but in reality, this may be due to collusive behavior through price-fixing, not operational efficiency (Seniono et al., 2007).

This aligns with agency theory, where collusive behavior reflects a conflict of interest between the agent and the principal. The collusion between two or more people to increase stock prices begins with the agent prioritizing their own interests over the principal's interests. This difference in goals triggers a conflict of interest. Additionally, cooperation (collusion) aimed at increasing the price-to-book value (PBV) ratio can encourage the agent (manager) to commit fraud. Research by Sumbari et al. (2023) shows that collusion, through market ratios, influences financial statement fraud. Therefore, the hypothesis to be tested is:
H6: Collusion has a positive effect on fraudulent financial statement

METHODS

This study uses a quantitative approach supported by secondary data derived from the annual reports of state-owned enterprises (SOEs) from 2018 to 2022. The sample for the research was selected using purposive sampling, as shown in Table 1. From 20 companies, the selected sample includes companies for the observation period spanning 5 years (2018-2022), resulting in a total of 100 samples. The data analysis technique used is panel data regression, with descriptive statistical tests, classical assumption tests (normality, autocorrelation, multicollinearity, and heteroscedasticity), and hypothesis testing (coefficient of determination test and t-test). The testing was conducted using Stata software version 17.

Table 1. Sample Selection Criteria

Sample Selection Criteria	Number of Companies
Publicly listed state-owned companies on the Indonesia Stock Exchange (IDX) during the period 2018-2022.	30
State-owned companies in the financial sector.	-5
Companies that do not provide the required information and are not related to the research variables.	-1
Companies that did not publish annual reports and financial statements accessible for 5 consecutive periods (2018-2022).	-4
Total Number of Companies in The Sample	**20**
Research Period	**5**
Total Sample for The Research	**100**

Source: data proceed

Fraudulent Financial Statement

The dependent variable in this study is fraudulent financial statement (FFS), which refers to the intentional manipulation of financial statements by individuals or groups to deceive the users of those financial reports. This variable is influenced by independent variables in the study. In this research, FFS is measured using the F-Score model, introduced by Dechow et al. (2011). The F-Score model is used due to its higher accuracy (95%) compared to other models like M-Score (Hugo, 2019). The F-Score model consists of two calculation components: accrual quality and financial performance. The result of the F-Score indicates that if the value is greater than 1 (>1), the company is suspected of committing FFS. Conversely, if the value is less than

1 (<1), the company is not suspected of committing FFS. Below is the formula for the F-Score model:

$$F - Score = Accrual\ Quality + Financial\ Performance$$

$$\text{RSST Accrual} = \frac{(\Delta\text{wc} + \Delta\text{NCO} + \Delta\text{FIN})}{(\text{Average Total Asset})}$$

WC = Current Assets – Current Liabilities
NCO = (Total Asset – Current Asset – *Investment and Advances*) – (Liabilities – Current Liabilities – Long term Debt)
FIN = Total Investment – Total Liabilities
ATS $= \frac{Beginning\ Total\ Assets + Ending\ Totsl\ Assets}{2}$

Description:
WC : *Working Capital*
NCO : *Non-Current Operating Assets*
FIN : *Financial Accrual*
ATS : *Average Total Assets*

Financial Performance = Change in Receivables + Change in Inventory + Change in Cash Sales + Change in Earnings

Description:

Change in Receivables $= \frac{\Delta Receivables}{Average\ Total\ Aset}$

Change in Inventory $= \frac{\Delta Inventory}{Average\ Total\ Aset}$

Change in Cash Sales $= \frac{\Delta Sales}{Sales\ (t)} - \frac{\Delta Receivable}{Receivable\ (t)}$

Change in Earnings $= \frac{Earnings\ (t)}{Average\ Total\ Assets} - \frac{Earnings\ (t-1)}{Average\ T.Asset\ (t-1)}$

Variabel Independen

Table 2. Independent Variable Proxy

Independent Variable	Proxy	Formula
Pressure	Financial Stability (A_CHANGE)	$\frac{Total\ aset\ t - (total\ aset\ t -}{total\ aset\ t}$
Opportunity	Ineffective Monitoring (BOC_OUT)	$\frac{Independent\ Commissioners}{Board\ of\ Commissioners}$
Rasionalization	Change in Auditor (AUD_CHANGE)	The dummy variable will take the value of 1 if there is a change in the auditor during the 2018-2022 period, and it will take the value of 0 otherwise.
Capability	Change in Director (D_CHANGE)	The dummy variable will take the value of 1 if there is a change in the board of directors during the 2018-2022 period, and it will take the value of 0 otherwise.
Arogance	CEO Duality (CEO_DUAL)	The dummy variable will take the value of 1 if there is CEO duality during the 2018-2022 period, and it will take the value of 0 otherwise.

Collusion	Market Ratio (COLLUSION)	Share Price / Book Value per Share

Source: data proceed

Pressure

Pressure is proxied using financial stability. Financial stability refers to a situation where an entity faces pressures and situations that lead to financial instability, potentially causing a decline in financial performance (Fuad et al., 2020). Financial stability is measured using changes in total assets (Fitriyah & Novita, 2021).

Opportunity

Opportunity is proxied using ineffective monitoring. Ineffective monitoring is a condition where the organization lacks effective oversight mechanisms (Setyono et al., 2023). Ineffective monitoring is measured by the ratio of independent commissioners to the total number of commissioners (Mardianto & Tiono, 2019).

Rasionalization

Rationalization is proxied using auditor turnover. Auditor turnover refers to a situation where an entity changes the auditor responsible for auditing its financial statements. Companies may switch auditors for various reasons. According to SAS No. 99, auditor turnover is a fraud risk factor. A dummy variable is used to measure auditor turnover (Bawekes et al., 2018).

Capability

Capability is proxied using board turnover. Board turnover occurs when there are changes in the board of directors' composition or the appointment of new directors to enhance organizational performance (Sasongko & Wijayantika, 2019). Board turnover is measured using a dummy variable (Faradiza, 2019).

Arogance

Arrogance is proxied using CEO duality. CEO duality refers to a situation where an individual holds dual roles within an organization, such as being both the CEO and occupying other significant positions in the same entity (Sumbari et al., 2023). In Indonesia, CEO duality is also associated with family ties with the board of commissioners or holding multiple roles within the entity (Kusumosari & Solikhah, 2021). CEO duality is assessed using a dummy variable (Sari et al., 2022).

Collusion

Collusion refers to organized fraudulent collaboration through agreements between two or more parties. Collusion can be described by market ratios, profit levels, and the PCM (Price-Cost Margin) of a market. The higher the market ratio achieved by an entity, the greater the likelihood of fraudulent financial statements (Sumbari et al., 2023).

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

This analysis provides a detailed description of the objects studied. The researcher conducted descriptive statistical analysis by describing in detail the variables of fraudulent financial statement, financial stability, ineffective monitoring, auditor turnover, board turnover, CEO duality, and collusion. The following is a table explaining the descriptive statistical analysis of the sample data.

Table 3. Descriptive Statistical Analysis

Variabel	Obs	Mean	Std. Dev.	Min	Max
FSCORE	100	0.0437786	0.6635517	-2.848247	2.04426
ASST_CHANGE	100	0.0713736	0.2198117	-0.3937315	1.421626
BOC_OUT	100	0.4246364	0.100929	0.2857143	0.666667
AUD_CHANGE	100	0.36	0.4824182	0	1

D_CHANGE	100	0.33	0.4725816	0	1
CEO_DUAL	100	0.34	0.4760952	0	1
COLLUSION	100	1.123832	1.363521	-8.022014	5.003909

Source: data proceed

Based on the results of descriptive statistical analysis, the dependent variable, fraudulent financial statement (FFS), measured using the F-Score, shows an average value of 0.0437786. This indicates that, on average, the research sample does not show indications of financial statement fraud. Meanwhile, the average for independent variables, such as pressure through financial stability (ASST_CHANGE), is 0.0713736, which indicates that, on average, companies experienced an asset increase of 7.1% compared to the previous year. In addition, the average ratio of independent commissioners (BOC_OUT) as a proxy for opportunity shows a value of 0.4246364, indicating effective oversight levels because most companies meet the minimum criteria of 30% independent commissioners.

Furthermore, the rationalization variable through auditor turnover (AUD_CHANGE) shows that 36% of the total sample experienced auditor turnover, while for capability measured through board turnover (D_CHANGE), 33% of companies experienced board turnover. The arrogance variable measured by CEO duality (CEO_DUAL) shows that 34% of companies have a CEO holding dual positions. For collusion, the average value is 1.123832, indicating that the average stock price of state-owned enterprises is approximately 12.38% above the book value. This data provides an overview that the majority of companies in the sample have relatively good levels of stability and compliance with oversight and management indicators.

Regression Model Testing

Table 4. Regression Model Testing

Test Model	Result	Conclusion
Chow Test	0.9423	Fixed Effect Model
Langrange Multiplier Test	1.000	Fixed Effect Model

Source: data proceed

Based on the Chow test results (Table 4), the probability value (0.9423) is greater than the significance level (α = 0.05), indicating that the appropriate model for this study is the common effect model. Further testing using the Lagrange Multiplier (LM) test (Table 8) also showed a probability value (1.000) exceeding the significance level, confirming the suitability of the common effect model (CEM). Therefore, the study concludes that the common effect model is the most appropriate and does not require further testing using the Hausman test.

Classical Assumption Tests

In the Fixed Effect model, classical assumption tests are performed, including the normality test, autocorrelation test, multicollinearity test, and heteroscedasticity test.

Normality Test

The normality test examines whether the data used in this study follow a normal distribution or not. The test typically uses a Shapiro-Wilk test, which compares the observed distribution of residuals to a normal distribution.

Table 5. Normality Test Result

Variable	Obs	W	V	z	Prob>z
e	100	0.97529	2.040	1.581	0.05690

Source: data proceed

From Table 5, the Shapiro-Wilk test result for the residual variable (e) shows a probability value (Prob>z) of 0.05690, which is greater than the significance level (α = 0.05). This indicates that the data sample does not exhibit problems with normality.

Multicollinearity Test

This test is used to examine the correlation between independent variables in a regression model. Multicollinearity occurs when independent variables in a model are highly correlated with each other, which can affect the reliability of the coefficient estimates.

Table 6. Multicollinearity Test Result

	Y	X1	X2	X3	X4	X5	X6
Y	1.0000						
X1	-0.0368	1.0000					
X2	0.0289	-0.0338	1.0000				
X3	-0.0701	0.0118	0.0176	1.0000			
X4	-0.3089	-0.0663	0.0692	0.1382	1.0000		
X5	-0.1258	0.2004	0.0138	-0.0106	0.0350	1.0000	
X6	0.3029	0.1994	-0.1968	0.1685	-0.1577	0.0632	1.0000

Source: data proceed

From Table 6, the correlation coefficients between the independent variables are all below 0.8, which means there is no significant correlation between the independent variables in the model. This indicates that there are no multicollinearity issues in the regression model..

Autocorrelation Test

This test is performed to determine whether there is a relationship between the error terms of the current period and the previous period in a regression model. In this study, the Breusch-Godfrey test is used to analyze autocorrelation in the regression model:

Table 7. Autocorrelation Test Result

Prob > Chi	0.2091
α	0.05

Source: data proceed

From Table 7, the p-value from the Breusch-Godfrey test is 0.2091, which is greater than 0.05. This indicates that there is no evidence of autocorrelation in the regression model. Since the p-value is greater than 0.05, it can be concluded that there is no significant autocorrelation issue in the model. Therefore, the model is free from autocorrelation.

Heteroscedasticity Test

The heteroscedasticity test is conducted to assess whether the variance of residuals is consistent across observations. The **Breusch-Pagan test** is used to detect heteroscedasticity. The test has the criterion that a probability value (p-value) greater than **0.05** indicates that there is no heteroscedasticity issue in the data.

Table 8. Heteroscedasticity Test Result

Uji *Breusch-Pagan*	**Hasil**
Prob > Chi	0.0267
α	0.05

Source: data proceed

From Table 8, the p-value from the Breusch-Pagan test is 0.0267, which is less than 0.05. This suggests that there is evidence of heteroscedasticity in the regression model, indicating that the variance of residuals is not constant. Since heteroscedasticity is present in the model, the next step is to use Robust Standard Errors. This adjustment allows for correction of the standard errors without affecting the coefficient estimates, thus eliminating the issue of heteroscedasticity.

Hypothesis Test

Coefficient of Determination Test (R^2)

The R^2 test is used to determine the proportion of variance in the dependent variable that can be explained by the independent variables. The R^2 value ranges between 0 and 1, where values closer to 1 indicate a stronger influence of the independent variables on the dependent variable.

Table 9. Coefficient of Determination Test Result

Number of Obs	100
R-Squared	0.2054

Source: data proceed

From table above, the R^2 value is 0.2054. This means that the independent variables—financial stability, ineffective oversight, auditor change, director change, CEO duality, and collusion—explain 20.54% of the variation in fraudulent financial statements. The remaining 79.46% of the variation in fraudulent financial statements is influenced by other factors not covered in this study.

Partial Regression Test (T-test)

The t-test, also known as the partial regression test, is conducted to analyze the extent to which each independent variable affects the dependent variable. The influence is evaluated based on the t-statistic value and its associated probability value. These values are then compared with the significance level (α). If the t-probability value is less than 0.05 (α), the independent variable is considered to have a significant effect on the dependent variable. Conversely, if the t-probability value is greater than 0.05, its effect is deemed insignificant. Below are the results of the t-test analysis conducted using STATA software:

Table 10. T-test Result

Variable	**Regression Model**			**Conclusion**
	Robusted – Common Effect Model			
	Coefficient	***t***	***Prob.***	
Cons.	-0.2033302	-0.50	0.621	
ASST_CHANGE	-0.2693908	-0.76	0.448	**Rejected**
BOC_OUT	0.7286258	0.84	0.402	**Rejected**
AUD_CHANGE	-0.1266105	-0.93	0.354	**Rejected**
D_CHANGE	-0.3567914	-2.71	0.008	**Rejected**
CEO_DUAL	-0.1701954	-1.24	0.219	**Rejected**
COLLUSION	0.1584957	1.85	0.068	**Rejected**

Source: data proceed

The first hypothesis, which posits that pressure has a significant positive effect on fraudulent financial statements (FFS) measured by the asset change ratio, is rejected. The t-value of 0.76 is lower than the critical t-value (0.76 < 1.985), and the probability value of 0.448 is greater than the significance level (0.448 > 0.05). Similarly, the second hypothesis, suggesting that opportunity has a significant positive effect on FFS measured by the independent commissioner ratio, is also rejected. The t-value of 0.84 is smaller than the critical t-value (0.84 < 1.985), and the probability value of 0.402 exceeds the significance level (0.402 > 0.05). The third hypothesis, which claims that rationalization significantly affects FFS through auditor changes, is rejected as well. The t-value of 0.93 is lower than the critical t-value (0.93 < 1.985), and the probability value of 0.354 is greater than 0.05, indicating no significant effect.

The fourth hypothesis, suggesting that capability has a significant positive effect on FFS through board changes, is partially rejected. While the t-value of 2.71 exceeds the critical t-value (2.71 > 1.985), indicating a significant effect, the effect is negative, and the probability value of 0.008 is below the significance level (0.008 < 0.05), confirming a negative impact. The fifth hypothesis, which claims that arrogance, measured by CEO duality, has a significant positive effect on FFS, is rejected as well. The t-value of 1.24 is lower than the critical value (1.24 < 1.985), and the probability value of 0.219 is higher than 0.05, showing no significant effect. Finally, the sixth hypothesis, proposing that collusion has a significant positive effect on FFS through market performance ratios, is also rejected. The t-value of 1.85 is smaller than the critical value (1.85 < 1.985), indicating no significant effect.

Regression Linear Model

F-Score **=** - 0.2033302 – 0.2693908 ***ASST_CHANGE*** + 0. 7286258 ***BOC_OUT*** – 0.1266105 ***AUD_CHANGE*** – 0.3567914 ***D_CHANGE*** - 0.1701954 ***CEO_DUAL*** + 0.1584957 ***COLLUSION***

Description:

α	= Konstanta atau derajat kesalahan yang diterima
ASST_CHANGE	= Perubahan aset
BOC_OUT	= Ketidakefektifan Pengawasan
AUD_CHANGE	= Perubahan auditor
D_CHANGE	= Perubahan Direksi
CEO_DUAL	= CEO *Duality*
COLLUSION	= Kolusi

Discussion

This study investigates the factors that influence fraudulent financial statements by examining various elements like pressure, opportunity, rationalization, capability, arrogance, and collusion. The pressure variable, represented by financial stability and measured using the asset change ratio, was found to have no significant effect on fraudulent financial statements. Despite fluctuations in financial stability, such as those caused by external shocks like the COVID-19 pandemic, companies did not appear to be motivated to manipulate their financial statements. Even when financial stability was low, as seen in companies like PT Waskita Beton Precast Tbk, no fraudulent activities were detected, while PT Garuda Indonesia, despite higher stability, also did not exhibit signs of fraud.

The opportunity factor, measured by the ratio of independent commissioners on the board of commissioners, was also tested. The results showed that the ineffectiveness of supervision, indicated by the number of independent commissioners, did not significantly impact the likelihood of fraud. Independent commissioners, often appointed to comply with regulations rather than to provide effective oversight, had little influence on reducing fraudulent behavior. This finding suggests that more effective supervision requires not just meeting regulatory requirements but also ensuring that board members are knowledgeable about the company's operations and corporate governance practices.

Rationalization, measured by auditor changes, was another factor explored in this study. The results indicated that changes in auditors had no significant effect on fraudulent financial statements. Despite the potential for agency conflicts or dissatisfaction with audit quality, auditor changes were not found to be a justification for fraud. This finding challenges the agency theory, which posits that frequent auditor changes could create stress periods that justify fraudulent behavior. Instead, it aligns with fraud scale theory, which emphasizes personal integrity as a key factor in preventing fraud rather than rationalization.

The study also examined the capability factor, represented by changes in the board of directors. The results showed that director changes had a significant negative effect on

fraudulent financial statements. New directors, seen as more competent, were perceived to reduce the likelihood of fraud due to their fresh perspectives and diligent approach to improving company performance. This supports the idea that frequent changes in directors can help reduce the risk of fraudulent behavior, as new leadership is more likely to prevent fraud due to the fear of detection.

In terms of arrogance, the study explored the effect of CEO duality, where the CEO also serves as a commissioner. The results revealed no significant impact on fraudulent financial statements, contradicting agency theory, which suggests that CEO duality can lead to arrogance and increase the chances of fraud. The findings suggest that CEOs with dual roles are more likely to focus on maintaining company stability and improving performance rather than engaging in fraudulent behavior. Even when familial ties between CEOs and commissioners exist, effective oversight from the board of commissioners can prevent fraud.

Collusion, measured using the Price to Book Value (PBV) ratio, was another factor examined in the study. The results showed that collusion, as indicated by PBV, did not have a significant effect on fraudulent financial statements. PBV is more reflective of market expectations and external factors than of any collusion practices. Despite high PBV values, such as in the case of PT Semen Baturaja Tbk, no fraudulent activities were detected. This further supports the idea that PBV is not an effective measure for detecting collusion or fraud in financial statements.

The study found that factors such as pressure, opportunity, rationalization, arrogance, and collusion did not significantly influence fraudulent financial statements among Indonesian companies between 2018 and 2022. The only significant factor identified was the capability of new directors, which had a negative impact on fraud. These findings highlight the importance of strong governance and oversight mechanisms in preventing fraudulent behavior, suggesting that while some factors may seem relevant, their direct impact on fraud is often limited. Effective supervision, experienced leadership, and a focus on integrity remain crucial in reducing the risk of financial fraud.

CONCLUSION

The study titled "The Effect of Pressure, Opportunity, Rationalization, Capability, Arrogance, and Collusion on Fraudulent Financial Statements" in state-owned enterprises (SOEs) during the 2018-2022 period presents several key findings. The research rejects all six hypotheses tested, indicating that factors such as pressure (financial stability), opportunity (ineffectiveness of supervision), rationalization (auditor changes), arrogance (CEO duality), and collusion (PBV ratio) do not significantly influence the occurrence of fraudulent financial statements (FFS). Specifically, financial instability, the number of independent commissioners, auditor changes, and CEO duality were found to have no meaningful impact on FFS. The only significant factor identified was the capability of the company, with director changes showing a significant negative effect on FFS, suggesting that companies with new directors were less likely to engage in fraudulent behavior. In contrast, companies that did not change directors were more likely to commit FFS.

REFERENCES

ACFE. (2020). *Report to the Nations*.

Achmad, T., Ghozali, I., & Pamungkas, I. D. (2022). Hexagon Fraud: Detection of Fraudulent Financial Reporting in State-Owned Enterprises Indonesia. *Economies*, *10*(1). https://doi.org/10.3390/economies10010013

Alfarisi, D. A. (2010). *Metode Untuk Mendeteksi Kolusi* (Edisi 3). Jurnal Persaingan Usaha.

Ali, M. (2022). Menolak Tindak Pianda Pasar Modal Dalam Perkara PT. Asuransi Jiwasraya Sebagai Korupsi. *Jurnal Ius Constituendum*, *7*(1), 32. https://doi.org/10.26623/jic.v7i1.4887

Apriliana, S., & Agustina, L. (2017). The Analysis of Fraudulent Financial Reporting Determinant through Fraud Pentagon Approach. *Jurnal Dinamika Akuntansi*, *9*(2), 154–165. https://doi.org/10.15294/jda.v9i2.4036

Astuti, I. N., Senjani, Y. P., & Haryono, S. (2022). Determinan Kualitas Audit Berdasarkan Standar Perikatan and Ukuran KAP. *Media Riset Akuntansi, Auditing & Informasi*, *22*(2), 231–252. https://doi.org/10.25105/mraai.v22i2.13985

Ayati, E. E. T., Nupus, S. I., Yusdian, & Wulandari. (2023). Pengaruh Fraud Hexagon Theory Terhadap Kecurangan Laporan Keuangan Pada Perusahaan Baand Usaha Milik Negara Di Indonesia Tahun 2017-2021. *INNOVATIVE: Journal Of Social Science Research*, *3*, 10267–10280.

Bawekes, H. F., Simanjuntak, A. M., & Daat, S. C. (2018). Pengaruh Teori Fraud Pentagon Terhadap Fraudulent Financial Reporting (Studi empiris pada perusahaan yang terdaftar di Bursa Efek Indonesia tahun 2011-2015). *Jurnal Akuntansi And Keuangan Daerah*, *13*, 114–134.

Beneish, M. D. (1998). Are Accruals during Initial Public Offerings Opportunistic? *Review of Accounting Studies*, *3*(1/2), 209–221. https://doi.org/10.1023/A:1009692703952

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

Evana, E., Metalia, M., Mirfazli, E., Georgieva, D. V., & Sastrodiharjo, I. (2019). Business Ethics in Providing Financial Statements: The Testing of Fraud Pentagon Theory on the Manufacturing Sector in Indonesia. *Business Ethics and Leadership*, *3*(3), 68–77. https://doi.org/10.21272/bel.3(3).68-77.2019

Fabiolla, R. G., Andriyanto, W. A., & Julianto, W. (2021). *Pengaruh Fraud Pentagon Terhadap Fraudulent Financial Reporting* (Vol. 2).

Faradiza, S. A. (2019). Fraud Pentagon and Kecurangan Laporan Keuangan . *EkBis: Jurnal Ekonomi And Bisnis*, *2*(1), 1. https://doi.org/10.14421/EkBis.2018.2.1.1060

Fauzi, F. T. (2021). *Analisis Pemberian Opini Audit Going Concern Selama Pandemi Covid-19 (Studi Pada Kantor Akuntan Publik X Pekanbaru)*.

Fitriyah, R., & Novita, S. (2021). Fraud Pentagon Theory For Detecting Financial Statement Fraudulent . *Jurnal Riset Akuntansi Kontemporer*, *13*(1), 20–25. https://doi.org/10.23969/jrak.v13i1.3533

Fuad, K., Lestari, A. B., & Handayani, R. T. (2020). Fraud Pentagon as a Measurement Tool for Detecting Financial Statements Fraud. *Proceedings of the 17 Th International Symposium on Management (INSYMA 2020)*. https://doi.org/10.2991/aebmr.k.200127.017

Handoko, B. L. (2021). Fraud Hexagon dalam Mendeteksi Financial Statement Fraud Perusahaan Perbankan di Indonesia. In *Jurnal Kajian Akuntansi* (Vol. 5, Issue 2). http://jurnal.ugj.ac.id/index.php/jka

Hugo, J. (2019). Efektivitas Model Beneish M-Score and F-Score dalam Mendeteksi Kecurangan Laporan Keuangan. *Jurnal Muara Ilmu Ekonomi And Bisnis*, *3*(1), 165. https://doi.org/10.24912/jmieb.v3i1.2296

Imtikhani, L., & Sukirman. (2021). Determinan Fraudulent Financial Statement Melalui Perspektif Fraud Hexagon Theory Pada Perusahaan Pertambangan. In *Jurnal Akuntansi Bisnis* (Vol. 19, Issue 1).

Inawati, W. A., & Arief, M. A. B. (2022). *The Influence of Fraud Hexagon Perspective on Fraud Financial Statement (Case studies on Manufacturing in the Chemical and Basic Industries Sub-Sector Listed on the Indonesia Stock Exchange for the Period 2019-2021)*. www.kemenperin.go.id

Indriani, N., & Rohman, A. (2022). Fraud Triangle and Kecurangan Laporan Keuangan Dengan Model Beneish M-Score. In *Jurnal Akuntansi Bisnis* (Vol. 20, Issue 1).

Indriyani, E., & Suryandari, D. (2021). Detection of Fraudulent Financial Statament Through Pentagon Theory With Audit Committee as Moderating. *EAJ (Economic and Accounting Journal*, *4*(1). http://openjournal.unpam.ac.id/index.php/EAJhttp://openjournal.unpam.ac.id/index.php/EAJ

Irawan, P. A., Susilowati, D., & Puspasari, N. (2019). Detection Analysis On Fraudulent Financial Reporting Using Fraud SCORE Model. *SAR (Soedirman Accounting Review) : Journal of Accounting and Business*, *4*(2), 161. https://doi.org/10.20884/1.sar.2019.4.2.2467

Jamilatuzzahro, & Suditomo, R. (2024). Tren Harga Pangan di Indonesia: Analisis Periode 2018-2024. *Equitas FEB UGM*.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Kirana, M., Toni, N., Afiezan, A., & Simorangkir, E. N. (2023). Apakah Teori Kecurangan Hexagon Efektif Mencegah Manipulasi Laporan Keuangan Perusahaan BUMN? *Jurnal Akuntansi Multiparadigma*, *14*(1). https://doi.org/10.21776/ub.jamal.2023.14.1.06

Kusumawati, A., Sriyono, S., & Heriningsih, S. (2022). Analisis Fraud Hexagon terhadap Financial Statement Fraud Perusahaan Properti Real Estate Terdaftar di BEI 2017-2021. *Jurnal Akuntansi And Auditing*, *19*(1), 75–93. https://doi.org/10.14710/jaa.19.1.75-93

Kusumosari, L., & Solikhah, B. (2021). Analisis Kecurangan Laporan Keuangan Melalui Fraud Hexagon Theory. *Jurnal Ilmiah Akuntansi And Keuangan*.

Lastanti, H. S., Murwaningsari, E., & Umar, H. (2022). The Effect of Hexagon Fraud on Fraud Financial Statements with Governance and Culture As Moderating Variables. *Media Riset Akuntansi, Auditing & Informasi*, *22*(1), 143–156. https://doi.org/10.25105/mraai.v22i1.13533

Mardianto, M., & Tiono, C. (2019). Analisis Pengaruh Fraud Triangle dalam Mendeteksi Kecurangan Laporan Keuangan. *Jurnal Benefita*, *1*(1), 87. https://doi.org/10.22216/jbe.v1i1.3349

Mulyaningsih, T. (2017). Teori Struktur Pasar: Pendekatan Struktural and Non-Struktural dalam Menganalisis Persaingan di Industri Perbankan. In *Jurnal Ekonomi Pembangunan* (Vol. 9, Issue 1).

Nurbaiti, A., & Putri, A. A. (2023). Mendeteksi Kecurangan Laporan Keuangan Menggunakan Teori Fraud Hexagon. In *Jurnal Studi Akuntansi and Keuangan* (Vol. 6, Issue 1).

Oktavia, S., Bahari, A., & Kartika, R. (2022). Pengaruh Elemen Fraud Hexagon Theory Terhadap Fraud Laporan Keuangan. *Jurnal Akuntansi And Ekonomika*, *12*(2), 275–284. https://doi.org/10.37859/jae.v12i2.4207

Rae, K., & Subramaniam, N. (2008). Quality of internal control procedures. *Managerial Auditing Journal*, *23*(2), 104–124. https://doi.org/10.1108/02686900810839820

Ramadhani, P. I. (2023, July 7). Waskita Karya and Wijaya Karya Diduga Manipulasi Laporan Keuangan Bertahun-tahun. *Liputan6.Com*.

Ratnasari, E., & Solikhah, B. (2019). Analisis Kecurangan Laporan Keuangan: Pendekatan Fraud Pentagon Theory. *Gorontalo Accounting Journal*, *2*(2), 98. https://doi.org/10.32662/gaj.v2i2.621

Sari, M. P., Mahardika, E., Suryandari, D., & Raharja, S. (2022). The audit committee as moderating the effect of hexagon's fraud on fraudulent financial statements in mining companies listed on the Indonesia stock exchange. *Cogent Business and Management*, *9*(1). https://doi.org/10.1080/23311975.2022.2150118

Sasongko, N., & Wijayantika, S. F. (2019). Faktor Resiko Fraud Terhadap Pelaksanaan Fraudulent Financial Reporting (Berdasarkan Pendekatan Crown's Fraud Pentagon Theory). *Riset Akuntansi And Keuangan Indonesia*, *4*(1), 67–76. https://doi.org/10.23917/reaksi.v4i1.7809

Sebayang, J., Tanjung, A. A., & Ruslan, D. (2021). Respon Kebijakan Moneter Terhadap Pandemi COVID 19. *JURNAL DINAMIKA EKONOMI PEMBANGUNAN*, *4*(2), 140–154. https://doi.org/10.14710/jdep.4.2.140-154

Seniono, L., Nugroho, W., Fe, A., Atma, U., Yogyakarta, J., & Susilo, Y. S. (2007). Struktur Pasar and Perilaku Industri Semen di Indonesia Tahun 2004-2005. In *Jurnal Ekonomi and Bisnis Indonesia* (Vol. 22, Issue 1).

Septriani, Y., & Desi, H. (2018). *Mendeteksi Kecurangan Laporan Keuangan dengan Analisis Fraud Pentagon* (Vol. 11, Issue 1). http://jurnal.pcr.ac.id

Septriani, Y., & Handayani, D. (2018). *Mendeteksi Kecurangan Laporan Keuangan dengan Analisis Fraud Pentagon* (Vol. 11, Issue 1). http://jurnal.pcr.ac.id

Setyono, D., Hariyanto, E., Wahyuni, S., & Pratama, B. C. (2023a). Penggunaan Fraud Hexagon dalam Mendeteksi Kecurangan Laporan Keuangan. *Owner*, *7*(2), 1036–1048. https://doi.org/10.33395/owner.v7i2.1325

Setyono, D., Hariyanto, E., Wahyuni, S., & Pratama, B. C. (2023b). Penggunaan Fraud Hexagon dalam Mendeteksi Kecurangan Laporan Keuangan. *Owner*, *7*(2), 1036–1048. https://doi.org/10.33395/owner.v7i2.1325

Sihombing, K. S., & Rahardjo, S. N. (2014). Analisis Fraud Diamond dalam Mendeteksi Financial Statement Fraud: Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Tahun 2010-2012. *DIPONEGORO JOURNAL OF ACCOUNTING*, *03*, 1–12. http://ejournal-s1.undip.ac.id/index.php/accounting

Sumbari, S., Kamaliah, K., & Fitrios, R. (2023). Analisis Model Fraud Hexagon dalam Mendeteksi Potensi Kecurangan Laporan Keuangan pada Perusahaan BUMN. *CURRENT: Jurnal Kajian Akuntansi And Bisnis Terkini*, *4*(1), 179–196. https://doi.org/10.31258/current.4.1.179-196

Takakobi, R. B. (2022). *Fraud Diamond dalam Memprediksi Kecurangan Laporan Keuangan pada Perusahaan Perbankan di BEI*.

Tarjo, T., Anggono, A., & Sakti, E. (2021). Detecting Indications of Financial Statement Fraud: a Hexagon Fraud Theory Approach. *AKRUAL: Jurnal Akuntansi*, *13*(1), 119–131. https://doi.org/10.26740/jaj.v13n1.p119-131

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

Yusuf, M., Tarmizi, M. I., & Maryati, M. (2023). Determinan Asumsi Going Concern dalam Pemberian Opini Audit. *Jurnal Akuntansi And Governance*, *4*(1), 56. https://doi.org/10.24853/jago.4.1.56-72

Zilhadia. (2020). Kejadian Luar Biasa COVID-19, Sebuah Tinjauan Literatur Secara Singkat. *Pharmaceutical and Biomedical Sciences Journal*, *2 (1)*, 19–26.