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Detecting fraudulent financial reporting: Heptagon fraud model

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ABSTRACT

This study aims to examine the role of corporate governance mechanisms in detecting fraudulent financial reporting (FFR) based on the fraud heptagon model. Quantitative method is used to analyze secondary data obtained from annual reports of State-Owned Enterprises (SOEs) listed on the Indonesia Stock Exchange for the period of 2019-2022. Sampling is carried out using purposive sampling method. This study uses 80 samples which are processed using WarpPLS 8.0 with the logistic regression analysis method. The results show that pressure and rationalization have an effect on fraudulent financial reporting. In contrast, other elements such as opportunity, capabilities, arrogance, ignorance, and greed do not have a significant effect on fraudulent financial reporting. Corporate governance mechanisms only moderate the effect of arrogance and ignorance on fraudulent financial reporting. It is expected that regulatory authorities in State-Owned Enterprises understand the reliability of the fraud heptagon model in detecting financial reporting fraud and provide guidance on fraud detection priorities. The novelty of this study is that it places corporate governance mechanisms as a moderating variable in the effect of fraud heptagon model on financial reporting fraud in State-Owned Enterprises in Indonesia.

ABSTRAK

Penelitian ini bertujuan untuk menguji peran mekanisme tata kelola perusahaan dalam mendeteksi kecurangan pelaporan keuangan berdasarkan model fraud heptagon. Metode kuantitatif digunakan untuk menganalisis data sekunder yang diperoleh dari laporan tahunan Badan Usaha Milik Negara yang terdaftar di Bursa Efek Indonesia periode 2019-2022. Pengambilan sampel dilakukan dengan metode purposive sampling. Penelitian ini menggunakan 80 sampel yang diolah menggunakan WarpPLS 8.0 dengan metode analisis regresi logistik. Hasil penelitian menunjukkan bahwa tekanan dan rasionalisasi berpengaruh terhadap kecurangan pelaporan keuangan. Sebaliknya, elemen lain seperti kesempatan, kapabilitas, arogansi, ketidaktahuan, dan keserakahan tidak berpengaruh signifikan terhadap kecurangan pelaporan keuangan. Mekanisme tata kelola perusahaan hanya memoderasi pengaruh arogansi dan ketidaktahuan terhadap kecurangan pelaporan keuangan. Diharapkan otoritas regulasi di Badan Usaha Milik Negara (BUMN) memahami keandalan model fraud heptagon dalam mendeteksi kecurangan pelaporan keuangan dan memberikan panduan tentang prioritas deteksi kecurangan. Kebaruan penelitian ini adalah menempatkan mekanisme tata kelola perusahaan sebagai variabel moderasi dalam pengaruh model heptagon fraud terhadap kecurangan pelaporan keuangan pada BUMN di Indonesia.

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1. INTRODUCTION

Currently, State-Owned Enterprises (SOEs) in Indonesia are facing significant challenges. According to the 2020 survey conducted by the Association of Certified Fraud Examiners (ACFE, 2022), Indonesia ranked highest among 16 countries in the Asia Pacific Region in terms of contributing to fraud cases. Furthermore, the country accounted for a total of 36 points out of the 198 reported fraud cases. The ACFE Global (2020) survey also stated that Indonesia was ranked 85 out of 180 countries, with fraud cases of 70% and budget variance of 2%. The results of the 2019 ACFE survey showed that financial fraud accounted for 6.7%, with losses of IDR 2,260,000,000 or 9.2%. Due to fraud, SOEs contributed 11.1% for losses of more than IDR 10 billion and 15.9% between IDR 500 million and IDR 1 billion. Despite the small losses, fraud cases in SOEs have received significant public attention (ACFE Global, 2020).

One of the cases of fraudulent financial reporting (FFR) in State-Owned Enterprises occurred in the transportation sector. PT. Garuda Indonesia experienced a significant decline in 2020 and 2023. The corruption lawsuit involving Garuda Indonesia in 2022 caused the government to lose up to IDR 8.8 trillion. Furthermore, State-Owned Enterprises in the insurance sector, PT Jiwasraya and PT Asabri, experienced losses of IDR 13.7 trillion and IDR 22.78 trillion, respectively (Ariyadi, 2020; Nurhakim & Harto, 2023). A fraud case also occurred at the State Electricity Company (PLN) which was suspected of manipulating financial reports due to a 162% increase in profits in 2018, adjusting receivables to the State Gas Company (PGN) as income (CNN Indonesia, 2020). PT. Wijaya Beton also distributed inappropriate dividends to shareholders with smaller dividends (CNN Indonesia, 2020). These cases certainly tarnished the image of business entities and the government, which failed to supervise the performance of SOEs (Dewi & Yudantara, 2020).

A study on fraudulent financial reporting (FFR) is crucial for identifying the underlying causes and the potential for such cases. The number of such incidents can reduce public and stakeholder confidence in a company's financial reports. (Nurhakim & Harto, 2023). Several studies have tested the effect of some elements on FFR and have produced different results (Akbar et al., 2021). Pressure is one aspect that is often considered to influence the occurrence of fraud (Achmad et al., 2022). Management must be able to generate profits to positively influence the company's investment patterns and financial results in the future. This pressure motivates management to save the company from the worst-case scenario. Management may cover up risky financial information to protect their reputation and the company's. A company's oversight and control over its management policies may be weakened if it has few or no independent commissioners. Poor managerial performance accountability can trigger irregularities. This can allow perpetrators to exploit inadequate supervision and documentation (Mohamed et al., 2021). Therefore, it is often recommended to employ independent commissioners to strengthen the supervisory authority within an organization (Mukaromah & Budiwitjaksono, 2021). Independent commissioners have an important role in preventing violations or deviations of authority. Independent commissioners are tasked with monitoring financial data and company management compliance with existing regulations. High-risk fraud cases can be reduced with strict supervision. According to Achmad et al. (2022), ineffective monitoring has no effect on FFR. This contradicts the statement of Robison & Santore (2011) that ineffective monitoring has a positive effect on FFR.

Rationalization is one of the causes of fraud. However, Aulia & Budiwitjaksono (2020)it can cause managers in an entity to fraudulent financial reporting because they want to describe good financial performance. This proves that fraudu-lent financial reporting cases in Indonesia are a matter of weak internal control in an entity. This study aims to test fraud pentagon theory in de-tecting fraudulent financial reporting. The object of this research is testing on financial target, financial stability, external pressure, ineffective moni-toring, nature of industry, change in auditor, change in director, frequent number of CEO, political connection and company existence against fraud-ulent financial reporting of companies classified in the LQ45 index on the Indonesian Stock Exchange (IDX present a different perspective from the statement made by Skousen et al. (2009). The act of justifying abnormal behavior is called rationalization (Christian et al., 2021). This happens when evidence of fraud or audit conclusions are hidden. Companies deliberately change auditors every year to eliminate audit findings related to fraud from previous years

(Khamainy et al., 2022). This action is deemed appropriate to maintain the good name of the organization and protect it from potential legal action. According to Mulya et al. (2019), there are political motives behind the change of directors. If an executive does not want to cooperate in committing fraud with a group of other executives, he will be replaced (Sagala & Siagian, 2021). On the other hand, the presence of directors can reveal fraud in an organization and improve company performance (Sari et al., 2020). When the position of director in a company is changed, allegations of fraud are often revealed. The results of research conducted by Chen et al. (2006) show that the change of directors has an effect on FFR. However, the results of research conducted by Nurbaiti & Hanafi (2017) show that the change of directors has no effect on FFR.

In the context of arrogance, the results of research conducted by Utami & Pusparini (2019) and Schrand & Zechman (2012) show that arro-gance can lead to fraudulent financial reporting. However, the results of research conducted by Situngkir & Triyanto (2020) show that arrogance has no effect on fraudulent financial reporting.

The government uses SOEs to boost Indonesia's macro economy (Hermansjah et al., 2021). Unfortunately, there have been many scandals in Indonesian SOEs that have harmed state finances and become serious problems for the country (Putri et al., 2022). Intrinsic inefficiency and lack of capability are often the weaknesses of SOEs in Indonesia (Achmad et al., 2022). In addition, there are many political intrigues and interventions that have taken root in the culture of Indonesian SOEs. Therefore, there are currently many studies examining the possibility of fraud in SOEs, given the many incidents of fraud, abuse of power, and manipulation in several first-class SOEs in Indonesia

This study uses the fraud heptagon theory to find out more about the factors causing financial reporting fraud. Yusof (2016) introduced two additional factors that influence the occurrence of fraud, namely ignorance and greed. Ignorance refers to a lack of understanding or knowledge of the risks or consequences of fraudulent actions, which ultimately affects a person's decision regarding fraud. Ignorance makes people no longer care about the sanctions and punishments they will receive if they commit fraud. Greed refers to the behavior of a person who is never satisfied and who always wants more or lives beyond his means. Greed influences a person's decision to commit fraud. This study aims to examine and evaluate the relationship between factors in the fraud heptagon theory and fraudulent financial reporting (FFR) in State-Owned Enterprises (SOEs) in Indonesia. In addition, this study also examines whether the corporate governance mechanism is able to moderate the relationship between the factors in the fraud heptagon theory and FFR.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Fraud Heptagon Model

The development of theories on variables that in-fluence fraud began with the fraud triangle theory initiated by Cressey (1953), which then continued to develop to the fraud heptagon theory. These theories offer the most comprehensive explanation and solution to fraud. According to Handoko (2021), there is a growing consensus that preexisting theories must be updated, specifically in developing countries such as Indonesia. Yusof (2016) also analyzed the variables of other previous theories. This article model was developed after a study was conducted on the application of fraud theory factors in Malaysia (Handoko & Angelica, 2023). The results of the study showed that greed and ignorance had an effect on fraudulent financial re-porting (FFR). Therefore, these two factors were then added and became the fraud heptagon theory. Factors from the previous theory include pressure, opportunity, rationalization, ability, and arrogance (Handoko et al., 2022).

Fraudulent Financial Reporting (FFR)

Companies present financial statements to communicate with stakeholders (Handoko et al., 2022). Users of financial reports can use the information presented in them to assess the situation and make judgments (Oktavia et al., 2022). Therefore, company management always tries to explain the good image of the company they lead (Sari et al., 2020). However, despite strict supervision, financial reporting cannot be free from fraud. The methods they often use are income smoothing, earnings management, and window dressing. This situation is also exacerbated by the demands of shareholder expectations that encourage healthy competition in business operations.

Sithic & Balasubramanian (2013), fraudulent financial reporting is an illegal and immoral act of taking another person's assets. Misidentifying and misrepresenting financial information in various account items is a common fraud in financial reports (ACFE Global, 2020). It is frequently observed that fixed asset acquisition deviates from relevant accounting standards. A common practice is to overstate or understate the debt owed, revenue acquired, and receivables ownership. Many parties are at risk from this move in different ways (Lionardi & Suhartono, 2022). Inaccuracies in decision-making and a decline in trust among the public following the disclosure of fraudulent facts are two risks that could increase (Ozcelik, 2020). Financial statements containing significant misstatements with adverse effects on users are known as fraudulent financial reporting (FFR) (Achmad et al., 2022b).

The Effect of Pressure on FFR

An internal and interpersonal motivation to accomplish a goal pragmatically is called pressure (Muhsin et al., 2018)the parent bodies of undifferentiated chondritic meteorites experienced comparatively mild thermal metamorphism that was insufficient to separate metal from silicate. There is debate about the nature of the heat source as well as the structure and cooling history of the parent bodies. Here we report a study of 244Pu fission-track and 40Ar–39Ar thermochronologies of unshocked H chondrites, which are presumed to have a common, single, parent body. We show that, after fast accretion, an internal heating source (most probably 26Al decay. Internal and external financial pressures affect companies, one significant factor is the debt used to finance operations (Ozcelik, 2020). In general, an organization is encouraged to utilize debt to fund its profitable activities (Owusu et al. (2022). On the other hand, conditions that encourage management to generate more money can arise when debt levels are unmanageable. In this scenario, management can commit fraud to manipulate or take advantage of the situation (Achmad et al., 2022). A high leverage ratio can indicate corporate fraud (Evana et al., 2019)identifies the most influential drivers of fraudulent reporting actions by employees and business owners. This research aimed to examine the effect of fraud indicators in fraud pentagon theory against the detection of fraudulent financial reporting on manufacturing companies. Independent variables in this research were variable pressure proxy by financial stability, external pressure, and financial target, opportunity proxy by nature of the industry, rationalization proxy by total accrual, capability proxy by the change of directors, and arrogance proxy by ownership by management. The dependent variable was the fraudulent financial reporting proxy by fraud score. The sample of this research used 57 manufacturing companies listed on the Indonesia Stock Exchange Effect in 2013-2015. It is found that the result of the determination coefficient test shows an adjusted R2 value of 0.068, it means that the ability of the independent variable in explaining the variants of the dependent variable is still limited, which is 6.8%. The ANOVA test, which shows the possibility of using the regression model to predict the Fraudulent Financial Report, serves as the methodological tool of the study. It is determined that pressure with proxies of financial stability (current. Naturally, the debt received will mature after a certain period of time. Large payback is the result of large debt. As a result, SOEs are usually under pressure to increase their revenues. According to Nikmah & Arjoen (2023), the necessity to meet financial goals drives managers to engage in fraud. Hidayah & Saptarini (2019) confirm that pressure is the sole trigger for someone to consider committing fraud. Pressure always exists, particularly when companies attempt to meet stakeholder and investor expectations (Hardika et al., 2018). Companies subjected to external pressures will likely become unstable and falter (Sari et al., 2022).

H_1: *Pressure has an effect on FFR*

The Effect of Opportunity on FFR

Opportunities arise when the entity's control and oversight structure is weakened, making fraud more likely to occur (Akbar et al., 2021). According to Bawekes et al. (2018), inadequate monitoring provides opportunities for individuals to engage in fraudulent activities. Many fraudsters rely on opportunities. When managers identify opportunities, their attention can shift to transactions that are easy to manipulate (Schnatterly et al., 2018). There are many ways through which individuals can exploit managers, particularly in compiling financial reports. The preparation of reports and data falls under the purview of management (Nugroho & Diyanty, 2022).

To keep an eye on and rein in management activity that can veer into fraud, there must be a board of commissioners and independent commissioners. The presence of independent commissioners can help directors manage the growing risk of fraud by providing a check on their authority (Suprianto et al., 2019). The willful absence of an independent commissioner renders oversight and management within an organization ineffective (Widarti, 2015). According to Aulia Haqq & Budiwitjaksono (2020)it can cause managers in an entity to fraudulent financial reporting because they want to describe good financial performance. This proves that fraudu-lent financial reporting cases in Indonesia are a matter of weak internal control in an entity. This study aims to test fraud pentagon theory in de-tecting fraudulent financial reporting. The object of this research is testing on financial target, financial stability, external pressure, ineffective moni-toring, nature of industry, change in auditor, change in director, frequent number of CEO, political connection and company existence against fraud-ulent financial reporting of companies classified in the LQ45 index on the Indonesian Stock Exchange (IDX, ineffective monitoring cannot aid in detecting fraud.

H_2. *Opportunity has an effect on FFR*

The Effect of Rationalization on FFR

Rationalization is frequently used to describe attempts to justify inappropriate and unacceptable conduct (Aulia Haqq & Budiwitjaksono, 2020)it can cause managers in an entity to fraudulent financial reporting because they want to describe good financial performance. This proves that fraudu-lent financial reporting cases in Indonesia are a matter of weak internal control in an entity. This study aims to test fraud pentagon theory in de-tecting fraudulent financial reporting. The object of this research is testing on financial target, financial stability, external pressure, ineffective moni-toring, nature of industry, change in auditor, change in director, frequent number of CEO, political connection and company existence against fraud-ulent financial reporting of companies classified in the LQ45 index on the Indonesian Stock Exchange (IDX. Individuals engaged in fraudulent activities tend to rationalize their actions (Ibrani et al., 2019). Acts of fraud are frequently justified by the belief that everyone participates in fraud at work. The fraudster believes his behavior is normal (Khamainy et al., 2022). An external auditor must be hired to prevent or handle financial fraud (Omukaga, 2021). The auditor's sole responsibility in a financial statement audit is to verify that financial reporting complies with statutory accounting standards and is accurate. However, for free entry, auditors play a crucial role in uncovering fraud, and their responsibility extends to convincing financial statement users that all disclosures have been presented truthfully and accurately (Nikmah, N., & Arjoen, 2023).

Nonetheless, an organization frequently ap-points a new auditor every year. This aims to elim-inate fraud trials and records of earlier audit find-ings (Faradiza, 2019). Often, inexperienced auditors need a more in-depth understanding of the organi-zations they work with. This scenario raises the possibility of information asymmetry, which man-agement may exploit to commit fraud. This study identified the connection between FFR and auditor change. According to Utami & Pusparini (2019), companies that engage in fraudulent activities often conceal their wrongdoing from external parties.

H_3: *Rationalization has an effect on FFR*

The Effect of Capability on FFR

Capability is a person's ability to commit fraud in various circumstances, mainly when the opportuni-ty for a condition to occur arises (Malca et al., 2020; Jannah & Rasuli, 2021). A person's capability ap-pears in fraudulent acts especially when he/she is struggling against problems, justifications, and opportunities (Vousinas, 2019). A person's position or title that gives him/her a greater opportunity to commit fraud can also be called capability (Mohamed et al., 2021). According to Aulia & Budiwitjaksono (2020), the progress of directors' capabilities is correlated with the length of the di-rectors' term of office. A person who has the same job and knows his responsibilities and authorities, he tends to acquire this ability. The appointment of a new director can facilitate the discovery of past fraud cases. According to CNN Indonesia (2020), in 2018 the new director of PT. Jiwasraya managed to uncover fraud that had occurred in the State-Owned Enterprise since 2006. However, the opportunity for fraud to occur will be greater if there is a change in the CEO position. Company political reasons can lead to a change in directors. When a CEO no longer complies with the irrational demands of a group of executives, he can be replaced (Imtikhani &

Sukirman, 2021). A transition phase following a change of directors is associated with a stress period, which can be used as an opportunity for fraud. According to Yulianti et al. (2019), dishonest behavior often occurs when there is a change of directors.

H_4: *Capability has an effect on FFR*

The Effect of Arrogance on FFR

The need for recognition by a group of individuals is the source of arrogance (Achmad et al., 2022). Someone can become more popular by using a va-riety of approaches. According to this research, an individual's popularity may increase if he/she ap-pears in more photographs. The number of images provided in the annual report exhibits arrogance and superiority over the post held by the board of directors (Sasongko & Wijayantika, 2019). A director who is aware of his access to power will do any-thing to maintain his position and assets. In State-Owned Enterprises in Indonesia, popularity is be-lieved to help a director extend his term of office. The length of time in a management position can help individuals achieve their goals (Chen et al., 2023). According to Tessa & Harto (2016), FFR is influenced by the frequency of the CEO's image. The results of research conducted by Handoko (2021) show that the arrogance of the CEO has a significant effect on the occurrence of financial reporting fraud.

H_5: Arrogance has an effect on FFR

The Effect of Ignorance on FFR

The Board of Directors (BOD) is the top management of a company. In addition, they are also given authority, resources, and access. The granting of this authority is intended to encourage directors to achieve better results more quickly. However, this authority can be misused which results in ignoring company regulations. The Board of Directors may think that there are no legal regulations or internal controls that can limit their behavior (Bawekes et al., 2018). This is considered to be an ignorant attitude. A person with this mindset can freely commit fraud and violate established rules (Muawanah & Sari, 2023). The company's leaders' disregard for applicable regulations encourages the need for ef-fective corporate governance. The results of research conducted by Handoko (2021) show that ignorance has a positive effect on FFR.

H_6: *Ignorance has an effect on FFR*

The Effect of Greed on FFR

Greed is a mindset of never feeling satisfied with what one has (Handoko et al., 2022). Greed can drive someone to cheat, break the law, and make inappropriate decisions to get what he/she needs. According to Varma & Khan (2016), greed is one of the main causes of many fraud cases. Humans survive by fulfilling their most basic demands. Directors also have the same way of dealing with things (Handoko et al., 2022). They'll make every effort to accommodate their demands deceptively. A director also has the authority to help in carrying out his dishonest plans. Maslow's 1943 human needs theory shows a hierarchical framework for satisfying different human desires. The national happiness level requires financial security, safety, and comfort. Individuals must address these requirements comprehensively. Typically, directors control the presentation of performance-related data to ensure that the set bonuses are received. This is because directors' income tends to increase when the organization they supervise performs well. Rewarding executives for their achievements has the potential to lead to fraud (Nawawi & Salin, 2018). In addition, directors have the authority to support the falsification of financial data in order to present performance that meets previously set goals.

H_7: *Greed has an effect on FFR*

Corporate Governance Mechanism Moderates the Effect of Heptagon Fraud Factors on FFR

Corporate governance mechanisms are a system of rules, practices, and processes that explain the relationship between managers, creditors, government, employees, and other internal and external stakeholders in respecting the rights and obligations of each party (Andayani et al., 2021). Andayani et al. (2021), corporate governance mechanisms consist of several dimensions, such as disclosure and board characteristics, investor rights and relations with shareholders, and ownership and supervision structure. The measurements used in the corporate governance mechanism are institutional ownership and audit committee. Institutional ownership influences the company's supervision and control structure and can influence fraud in financial reporting (Teguh & Kristanto, 2020). The existence of an audit committee can help reduce FFR risk by increasing supervision and transparency in the financial reporting process, thereby strengthening overall corporate governance (Damayanti & Susanto, 2015).

A strategy or rule is required to lessen the occasional increase in fraud. According to the legislation, corporate governance (CG) is essential in reducing the proliferation of fraudulent activities. A structured framework has been developed to regulate the CG mechanism (Saeed et al. 2015) with the aim of reducing the likelihood of FFR occurring. As shown in the fraud heptagon theory, there are seven factors that influence the occurrence of FFR. The results of research conducted by Sawaka (2020) show that the CG mechanism can reduce fraud.

H_8: *CG mechanism moderates the effect of pressure on FFR*

H_9: *CG mechanism moderates the effect of opportunity on FFR*

H_{10}: *CG mechanism moderates the effect of rationalization on FFR*

H_{11}: *CG mechanism moderates the effect of capability on FFR*

H_{12}: *CG mechanism moderates the effect of arrogance on FFR*

H_{13}: *CG mechanism moderates the effect of ignorance on FFR*

H_{14}: *CG mechanism moderates the effect of greed on FFR*

3. RESEARCH METHOD

This quantitative study uses secondary data in the form of annual reports of State-Owned Enterprises in Indonesia obtained from the State-Owned Enterprises website. Statistical data analysis for hypothesis testing is carried out using WarpPLS software version 7.0. This study involves all clusters of State-Owned Enterprises listed on the Indonesia Stock Exchange (IDX) from 2019 to 2022. The clusters include energy, infrastructure, insurance and pension funds, tourism and support, airport services, hotel services, logistics, telecommunications and media, food and fertilizers, plantations and forestry, manufacturing, health, and mutual funds (Kementerian BUMN, 2021).

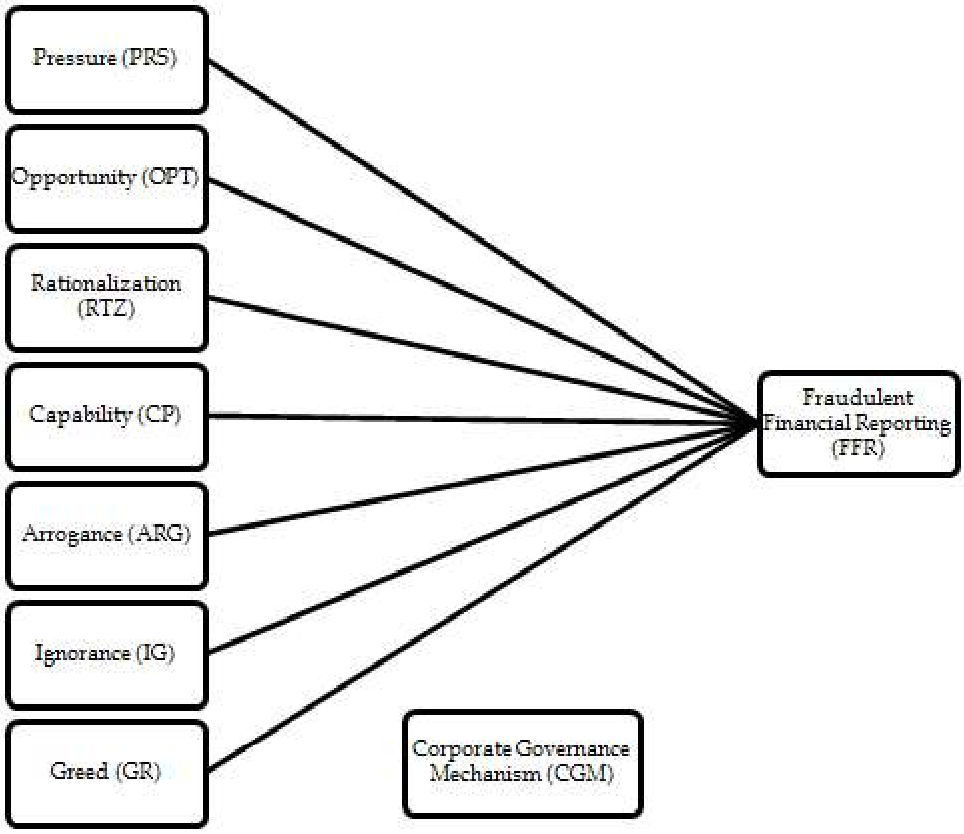

Figure 1
Conceptual Framework

Table 1
Purposive Sampling Criteria

No	Description	Total
1	All State-Owned Enterprises listed on the Indonesia Stock Exchange (IDX) for the period of 2019-2022	52
2	Banking companies and those that do not yet have complete data to calculate M-Score	(32)
The total of firms that can be used as a sample		20
Research year		4
Total research data		80

Source: Data Processed, 2023

Table 2
Operational Definition of Variables

Variables	Measurements	Source
Pressure (PRS)	Measured using leverage ratio =	(Handoko et al., 2022)
Opportunity (OPT)	Measured using Independent Board of Commissioners ratio =	(Yusof, 2016)
Rationalization (RTZ)	Measured using a dummy variable, if there was a change of auditors during the 2019–2022 period, the code is 1, but if not, it is 0.	(Yusof, 2016)
Capability (CP)	Measured using a dummy variable, the code is 1 if there was a change of directors during the 2019–2022 period but 0 if not.	(Yusof, 2016)
Arrogance (ARG)	Frequent number of CEO's photos in annual reports during the period of 2019–2022.	(Yusof, 2016)
Ignorance (IG)	Measured using Corporate Governance Courses for Executive and Non-Executive Directors =	(Yusof, 2016)
Greed (GR)	Measured using executive directors remuneration (ratio) =	(Yusof, 2016)
Corporate Governance Mechanism (CGM)	It is measured using,	(Sari et al., 2020)

Source: Data Processed, 2023

Sampling is carried out using a purposive sampling method with specific objectives and criteria. This method is designed so that no member of the population shows the same changes as the sample (Ghozali, 2016). Specific criteria are needed to produce the desired information. Tables 1 and 2 show the sampling process and operational definitions of variables.

The dependent variable of fraudulent financial reporting (FFR) is measured using the Beneish M-Score. The measurement includes eight M-Score ratios. Companies with M> -2.22 indicate the possibility of fraudulent financial reporting (FFR), which is symbolized by the number 1. Meanwhile, companies with M <-2.22 indicate the possibility of no fraudulent financial reporting (FFR), which is symbolized by the number 0 (Beneish, 1999). In addition, the FFR variable uses time series data from 2018-2021. The independent variables are based on Fraud Hexagon Theory factors such as pressure (PRS), opportunity (OPT), rationalization (RTZ), capability (CP), arrogance (ARG), ignorance (IG), and greed (GR). This research also uses the corporate governance mechanism (CGM) as a moderating variable. The definition of the variable in this study is presented in Table 2. Meanwhile, Table 2 shows the M-SCORES of the independent variable developed by Beneish (1999) to examine factors related to FFR.

Table 3
Variable Measurement

Dependent Variable (FFR)	(Beneish, 1999)
DSRI = $(Receivables_t/Sales_t)/(Receivables_{t-1}/Sales_{t-1})$	(1)
GMI = $((Sales_{t-1} - COGS_{t-1})/Sales_{(t-1)})/((Sales_t - COGS_t)/Sales_t)$	(2)
AQI = $(1-(CA_t - PPE_t)/TotalAsset_t)/(1-(CA_{t-1} - PPE_{t-1})/Total\ Asset_{t-1})$	(3)
SGI = $Sales_t/Sales_{t-1}$	(4)
DEPI=$(Depreciation_{-1})/(Depreciation_{t-1}+PPE_{t-1}))/(Depreciation_t/(Depreciation_t + PPE_t))$	(5)
SGAI = $(SGA_t/Sales_t)/(SGA_{t-1}/Sales_{t-1})$	(6)
LVGI= $(Current\ Liabilities - LTD_t)/TotalAsset_t)/(Current\ Liabilities_{-1} - LTD_{t-1})/Total\ Asset_{t-1})$	(7)
TATA=(Income Before Extraordinary Items - Cashfrom Operations)/Total $Assets_t$	(8)
M-Score = -4.84 + 0.929 DSRI + 0.528 GMI + 0.404 AQI + 0.892 SGI + 0.115 DEPI – 0.172 SGAI – 0.327 LVGI + 4.697 TATA	(9)

Source: Data Processed, 2023

Table 4
Results of Descriptive Statistics Test

	N	Means	SD	Min	Max
Fraudulent Financial Reporting	80	0.16	0.37	0	1
Pressure	80	0.57	0.28	0.1	0.9
Opportunities	80	0.42	0.20	0.3	1,4
Rationalization	80	0.07	0.27	0	1
Capability	80	0.45	0.50	0	1
Arrogance	80	7,15	2,28	3	12
Ignorance	80	12.5	8.65	0.75	35,8
Greed	80	0.07	0.23	0.10	1.15
Corporate Governance Mechanism	80	9,73	10,2	3	45

Source: Data Processed, 2023

4. DATA ANALYSIS AND DISCUSSION

Research Result

Descriptive statistical analysis describes the data distribution including minimum value, maximum value, average value, and standard deviation for the data used in this study. The dependent variable used in this study is fraudulent financial reporting (FFT), while the independent variables are fraud heptagon factors consisting of pressure, opportunity, rationalization, capability, arrogance, ignorance, and greed. Corporate governance mechanism is used as the moderating variable. The purpose of descriptive analysis is to analyze or provide a description of the data accompanied by calculations to clarify the characteristics of the data used so that the description of the results regarding the data variables in the research can be known (Damayanti & Susanto, 2015).

A standard deviation value that is smaller than the mean value indicates that the data distribution is not much different, so that the data is quite good and homogeneous. A standard deviation value that is smaller than the mean value indicates that the data distribution is in the calculated average area. Meanwhile, a standard deviation value that is greater than the mean value indicates a varied data distribution, so that the data is heterogeneous. The average value of each index is shown in Table 4.

Based on the data presented in Table 4, the effect of pressure on FFR is moderate, with some variation between cases. The effect of opportunity on FFR is reasonable with a relatively small margin. The effect of rationalization on FFR is low. The effect of capability on FFR is average with quite large variation in the sample. The effect of arrogance on FFR is moderate, with some variation between cases. The effect of ignorance on FFR is average with significant differences between cases. The effect of greed on FFR is relatively low. Corporate governance mechanisms effectively reduce FFR risk with an acceptable average level and quite large variation between cases.

Each variable is measured using the mean and standard deviation values that indicate the level of variability between cases. These variables can help understand the factors that influence the risk of fraudulent financial reporting and how corporate governance mechanisms can help reduce this risk. Data analysis aims to understand the factors that influence the potential for FFR to occur in an organization or company. By measuring variables such as pressure, opportunity, rationalization, capability, arrogance, ignorance, and greed, this study is expected to help identify areas that are vulnerable to fraudulent financial reporting practices and develop strategies to prevent them.

Based on the model fit test results and the quality indices in Table 5, the research model meets all requirements. The consistent results attached to the table are suitable for modeling the relationship of the variables studied. Exogenous and endogenous variables have a causal relationship, both direct and indirect, which is reflected in the P-value of the average path coefficient (APC), which is significant at P; = 5, where there is no multicollinearity between variables. This model is used to predict the influence of exogenous variables on endogenous variable.

Table 5
Model Fit Test Results

Model Fit and Quality	Index	Criteria	Results
Average Path Coefficient (A.P.C.)	0.054	P<0.001	Meet The Criteria
Average R-Squared (A.R.S.)	0.012	P<0.002	Meet The Criteria
Average Adjusted R-Squared	0.176	P<0.003	Meet The Criteria
Average Block Variance Inflation Factor (A.V.I.F.)	3.178	If < = 5, ideally < = 3.3	Fit Models
Average Full Collinearity V.I.F. (A.F.V.I.F.)	3,297	If < = 5, ideally < = 3.4	Fit Models
Tenenhaus GoF (GoF)	0.460	Small >= 0.1, Medium > = 0.25 Large > = 0.36	Large
Simpson's Paradox Ratio (S.P.R.)	0.786	acceptable if >= 0.9, ideally = 1	Fit Models
R-Squared Contribution Ratio (R.S.C.R.)	0.964	acceptable if >= 0.9, ideally = 1	Fit Models
Statistical Suppression Ratio (S.S.R.)	0.357	acceptable if > = 0.7	Meet The Criteria
Nonlinear Bivariate Causality Direction Ratio (N.L.B.C.D.R.)	1,000	acceptable if > = 0.7	Fit Models

Source: Data Processed, 2023

Discussion

The results of hypothesis 1 (H_1) testing show that pressure has a regression coefficient value of -0.247 with a significance level of 0.010 or smaller than 0.05, so H_1 is accepted. Pressure has an effect on fraudulent financial reporting (FFR). This means that pressure is an important factor in the case of FFR. The results of this study are in line with the results of research conducted by Lastanti et al. (2022), Lefina et al. (2022), Owusu et al. (2022), Purnaningsih et al. (2022), and Wahyubroto (2017) that simultaneous pressure has a significant effect on FFR. The results of this study support the fraud heptagon theory which states that external and internal pressures on a company can trigger management to carry out fraudulent financial reporting.

The results of hypothesis 2 (H_2) testing show that opportunity has a regression coefficient value of 0.043 with a significance level of 0.351 or greater than 0.05, so H_2 is rejected. Opportunity has no effect on fraudulent financial reporting (FFR). Based on the auditor's perception, opportunities cannot be the cause of fraudulent financial reporting in an organization. No matter how big the opportunity is, such as ineffective supervision, it will not change individual principles. The results of this study are in line with the results of studies conducted by Andalia et al. (2021), Cheliatsidou et al. (2023), and Uciati & Mukhibad (2019) that opportunities do not have a significant effect on FFR. This finding is different from the concept developed by Yusof (2016), which states that FFR occurs because managers see profitable opportunities and are motivated to carry out fraudulent financial reporting.

The results of hypothesis 3 (H_3) testing show that rationalization has a regression coefficient value of -0.289 with a significance level of 0.003 or smaller than 0.05, so H_3 is accepted. Rationalization has an effect on fraudulent financial reporting (FFR). Individuals who uphold the value of integrity realize that committing fraud on financial reports is not right, so it is impossible for them to rationalize this action. The fraud heptagon concept states that a reasonable defensive attitude or unethical behavior causes FFR. The results of this study are in line with the results of research conducted by Ghaisani et al. (2022), Owusu et al. (2022), and Wijayanti et al. (2024) that rationalization has an effect on FFR.

The results of hypothesis 4 (H4) testing show that capability has aregression coefficient value of-0.139 with a significance level of 0.115 or greater than 0.05, so H4 is rejected. Capability has no effect onfraudulent financial reporting (FFR). Change of directors can occur due to resignation or an organi-zational initiative to improve performance. The results of this study are in line with the results of research conducted by Ghaisani et al. (2022) and Uciati & Mukhibad (2019) that change of directors does not cause FFR.The organization retains directors because of their performance and ability to maintain organizational conditions. However, the results of this study are not in line with the results of research conducted byAchmad et al.(2022b), Handoko & Angelyca(2023), and Utami & Pusparini(2019). This finding is not based on the fraud heptagon concept which states that the quality and skills of directors regarding the company can cause FFR.

The results of hypothesis 5 (H_5) testing show that arrogance has a regression coefficient value of -0.039 with a significant level of 0.362 or greater than 0.05, so H_5 is rejected. Arrogance has no effect on fraudulent financial reporting (FFR). The number of CEO photos included in a company's annual report has no effect on FFR. The results of this study are in line with the results of research conducted by Chen et al. (2023) and Li et al. (2023) that the number of CEO photos does not affect FFR. However, the results of this study are contrary to the fraud heptagon concept which states that arrogance arises from a sense of superiority over immunity to rules, which can lead to deviant behavior.

The results of hypothesis 6 (H_6) testing show that ignorance has a regression coefficient value of 0.091 with a significance level of 0.202 or greater than 0.05, so H_6 is rejected. Ignorance has no effect on fraudulent financial reporting (FFR). This means that ignorance is not the main factor affecting FFR. Knowledge development through training and internal experience has not been able to reduce FFR actions. The results of this study are not in line with the results of research conducted by Cheliatsidou et al. (2023), Sahla & Ardianto (2023), and Uciati & Mukhibad (2019) that ignorance has a positive effect on FFR.

The results of hypothesis 7 (H_7) testing show that greed has a regression coefficient value of -0.150 with a significance level of 0.082 or greater than 0.05, so H_7 is rejected. Greed has no effect on fraudulent financial reporting (FFR). The provision of rewards has not been able to trigger human greed and dissatisfaction with the amount of rewards given. The results of this study are not in line with the results of research conducted by Handoko & Angelyca (2023) and Sukmadilaga et al. (2022) that that greed positively affects FFR. This finding also differs from the theory developed by Yusof (2016) that the desire to obtain additional funds can encourage deviant behavior.

The results of hypothesis 8 (H_8) testing show that the ability of the corporate governance (CG) mechanism to moderate the relationship between pressure and FFR has a regression coefficient value of 0.075 with a significance level of 0.248 or greater than 0.05, so H_8 is rejected. CG mechanism does not moderate the effect of pressure on FFR. The results of this study are not in line with the results of research conducted by Dewi & Anisykurlillah (2021) that the CG mechanism can moderate the effect of pressure on FFR.

The results of hypothesis 9 (H_9) testing show that the ability of CG mechanism to moderate the effect of opportunity on FFR has a regression coefficient value of 0.156 with a significance level of 0.073 or greater than 0.05, so H_9 is rejected. CG mechanism does not moderate the effect of opportunity on FFR. The results of this study are consistent with the results of research conducted by Chen et al. (2023) that CG mechanism cannot moderate the effect of opportunity on FFR.

The results of hypothesis 10 (H_{10}) testing show that the ability of CG mechanism to moderate the effect of rationalization on FFR has a regression coefficient value of 0.027 with a significance value of 0.406 or greater than 0.05, so H_{10} is rejected. CG mechanism does not moderate the effect of rationalization on FFR. This statement is consistent with the results of research conducted by Chen et al. (2023) that CG mechanism does not moderated the effect of opportunity on FFR.

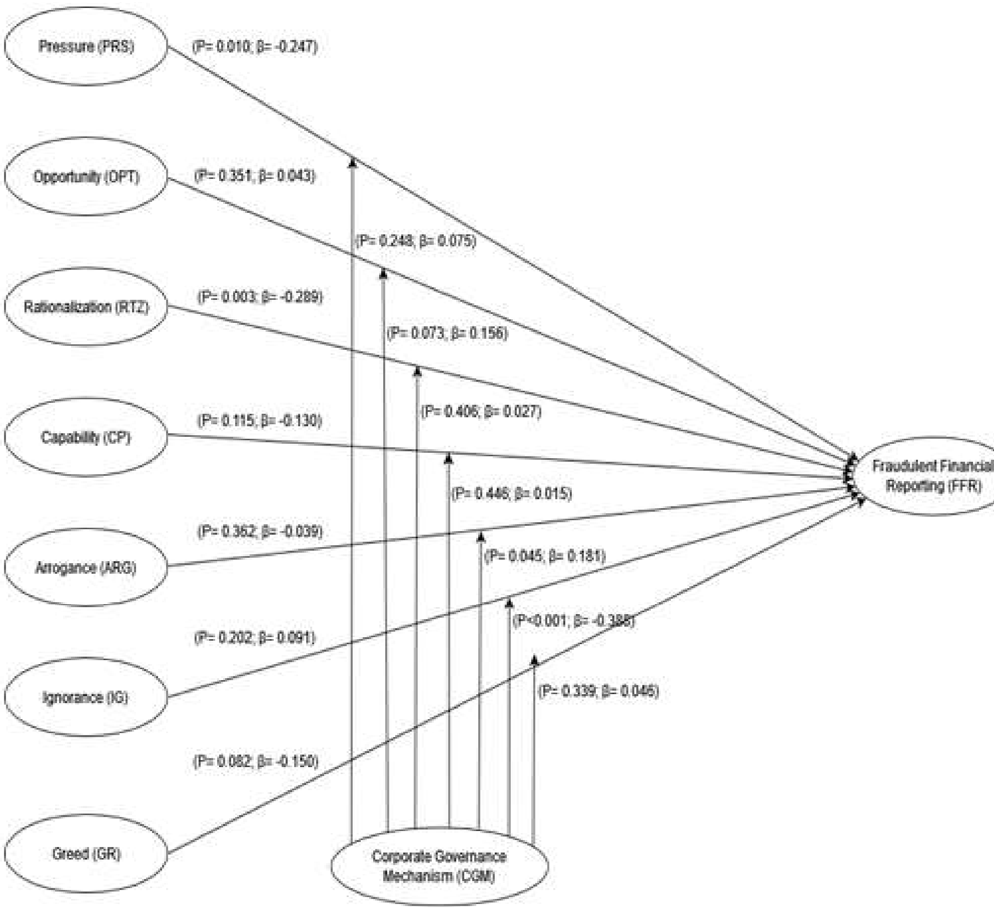

Figure 2
WarpPLS Results

Source: Data Processed, 2023

Table 6
Hypotheses Summary

	Hypothesis	Coefficient	Criteria	Sign	Summary
H1:	Pressure FFR	-0.247	<0.10	0.010	Accepted
H2:	Opportunity FFR	0.043	<0.05	0.351	Rejected
H3:	Rationalization FFR	-0.289	<0.05	0.003	Accepted
H4:	Capability FFR	-0.130	<0.05	0.115	Rejected
H5:	Arrogance FFR	-0.039	<0.05	0.362	Rejected
H6:	Ignorance FFR	0.091	<0.05	0.202	Rejected
H7:	Greed FFR	-0.150	<0.05	0.082	Rejected
H8:	Pressure * CG Mechanisms FFR	0.075	<0.05	0.248	Rejected
H9:	Opportunity * CG Mechanisms FFR	0.156	<0.05	0.073	Rejected
H10:	Rationalization * CG Mechanisms FFR	0.027	<0.05	0.406	Rejected
H11:	Capability * CG Mechanisms FFR	0.015	<0.05	0.446	Rejected
H12:	Arrogance * CG Mechanisms FFR	0.181	<0.05	0.045	Accepted
H13:	Ignorance * CG Mechanisms FFR	-0.388	<0.05	<0.001	Accepted
H14:	Greed * CG Mechanisms FFR	0.046	<0.05	0.339	Rejected

Source: Data Processed, 2023

The results of hypothesis 11 (H_{11}) testing show that the ability of CG mechanism to moderate the effect of capability on FFR has a regression coefficient value of 0.015 with a significance level of 0.446 or greater than 0.05, so H_{11} is rejected. CG mechanism does not moderate the effect of capability on FFR.

The results of hypothesis 12 (H_{12}) testing show that the ability of CG mechanism to moderate the effect of arrogance and FFR has a regression coefficient value of 0.181 with a significance level of 0.045 or lower than 0.05, so H_{12} is accepted. CG mechanism moderates the effect of arrogance on FFR. The results of this study support the results of research conducted by Rukmana (2018).

The results of hypothesis 13 (H_{13}) testing show that the ability of CG mechanisms to moderate the effect of ignorance on FFR has a regression coefficient value of -0.388 with a significance level of <0.001 or lower than 0.05, so H_{13} is accepted. CG mechanism moderates the effect of ignorance on FFR. Institutional ownership bears the responsibility for monitoring and controlling violations and can provide ideal insight into managerial activities.

The results of hypothesis 14 (H_{14}) testing show that the ability of CG mechanism to moderate the effect of greed on FFR has a regression coefficient value of 0.046 with a significance level of 0.339 or greater than 0.05, so H_{14} is rejected. CG mechanism does not moderates the effect of greed on FFR. Although compensation impacts FFR, institutional ownership is unrelated to this correlation.

Figure 2 and Table 6 show the results of testing hypotheses related to the effect of the fraud heptagon model on fraudulent financial reporting (FFR). The results show that pressure and rationalization have an effect on FFR. These findings align with the results of previous research that psychological factors such as pressure and rationalization can influence financial misconduct behaviors. The results of research conducted by Button et al. (2023) and Zainal et al. (2022) show that pressure and rationalization have an effect on FFR. This is consistent with the fraud heptagon theory that pressure and rationalization are factors that influence FFR.

Pressure and rationalization are two psychological factors influencing individual and organizational behaviors related to financial fraud practices (Awalluddin et al., 2022). Pressure may arise from various sources, such as high-performance targets, intense market competition, or pressure exerted by superiors. These factors can create an environment where individuals or organizations feel compelled to commit fraudulent actions to achieve set goals. Meanwhile, rationalization is a mental process where individuals or organizations justify their financial fraud behaviors. Rationalization often emerges as a means to convince oneself that the action is necessary or will not harm others (Kalovya, 2023). Individuals or organizations may rationalize fraudulent actions by justifying them as essential to achieve certain goals or as acceptable in specific situations.

Companies must consider psychological aspects such as pressure and rationalization when designing effective internal control systems and CG mechanisms. Companies can identify potential fraud risks and take appropriate preventive measures by understanding these factors. Designing robust internal control systems and transparent CG mechanisms can help mitigate pressure and opportunities for engaging in financial fraud practices. Further, fostering an organizational culture that promotes integrity and high ethics can reduce the likelihood of rationalizing fraudulent behaviors. Thus, considering aspects like pressure and rationalization when designing internal control systems and CG mechanisms is crucial to maintaining the integrity and credibility of companies in financial management. This is also a proactive effort to prevent financial fraud and build a work environment based on high ethics and integrity principles.

Hypotheses 2, 4, 5, 6, and 7 are rejected. The results of this study support the results of research conducted by Andalia et al. (2021), Chen et al. (2023), and Li et al. (2023) that opportunity, capabil-ity, arrogance, ignorance, and greed have no effect on FFR. Change of directors can occur due to resig-nation or an organizational initiative to improve overall performance (Arisandi & Verawaty, 2017). Whether or not many photos of the CEO are attached to the company's annual report does not indicate the occurrence of FFR. The CEO who holds all internal control only cares about the number of photos displayed in the annual report (Chen et al., 2023).In addition, ignorance is not the main factor that influences FFR. The development of knowledge through training and internal experience has not been able to reduce FFR actions. The provision of rewards has not been able to trigger human greed and dissatisfaction with the amount shown. So, not all factors in the fraud heptagon theory are the main drivers of FFR.

Although the fraud heptagon theory provides a comprehensive view of the factors that influence FFR, this theory does not establish these factors as fixed and constant variables in every situation(Yusof, 2016). The influence of pressure, opportunity, rationalization, capability, arrogance, ignorance, and greed can vary depending on the context of the fraud case and the specific analysis. In this case, it is essential for companies to not only identify the factors in the fraud heptagon theoryas a firm guide but also understand that the influence and relevance of each factor may change depending on the situation at hand (Suprapto & Agustia, 2023). The results of this study indicate that several dimensions in the fraud heptagon theory do not have a significant effect on FFR in State-Owned Enterprises (SOEs). One reason is the different cha-racteristics between State-Owned Enterprises (SOEs) and private companies. For example, SOEs' focus on public services rather than profits creates different financial pressures (Donald & Parajow, 2023). So, the opportunity to carry out FFR is reduced due to higher government supervision. In addition, SOE's have greater social responsibility and public supervision, making the rationalization of fraud difficult (Nurhakim & Harto, 2023). A higher level of supervision can influence factors such as pressure and rationalization. Meanwhile, the level of arrogance can be influenced by the leadership ownership structure determined by the government as the majority shareholder.

The heptagon fraud theory can be a holistic and flexible approach to identifying potential FFR risks (ALShanti et al., 2024). Companies should be aware that the fraud heptagon factors can strengthen or weaken each other's impact. Understanding the company's internal and external dynamics is necessary to adapt fraud prevention strategies to developing situations. Even though SOEshave fi-nancial support from the government in carrying out their operational activities, they still require funding from retail and institutional investors (Donald & Parajow, 2023). The higher the institu-tional ownership, the more influential management supervision should be (Safitri et al., 2024).

Moreover, the majority of SOEs' shares are owned by the government. Meanwhile, in economic activities, the government serves as a regulator. Therefore, an integrated and comprehensive ap-proach to designing CG mechanism to prevent FFR will be more effective (Maulidi & Ansell, 2021).

Hypotheses 12 and 13 are accepted. This sug-gests that CG mechanism moderates the effect of arrogance and ignorance on FFR. CG mechanism is able to weake the effect of arrogance and ignorance on FFR. This statement aligns with the findings of Saptarini (2019), Lastanti et al. (2022), Triyanto (2019), and Yusof (2016) that CG mechanism can weaken the effectof arrogance and ignorance on FFR. This is consistent with the fraud heptagon theory, which identifies seven factors influencing financial fraud occurrences. Arrogance occurs when individuals or organizations feel they will not be caught or punished for engaging in FFR. Ignorance arises when individuals or organizations do not understand the consequences of their financial fraud behaviors.

Arrogance occurs when individuals or organi-zations feel they will not be caught or punished for financial fraud (Sarikhani & Ebrahimi, 2022). Meanwhile, ignorance is a lack of understanding by individuals or organizations about the conse-quences of their financial fraud behaviors (Sarikhani & Ebrahimi, 2022). So, it can be concludedthat effective CG mechanisms can help prevent financial fraud by reducing psychological factors such as arrogance and ignorance. Further, the results of research conducted by Abdallah et al. (2016) show thatCG mechanisms can moderate the influence of psychological factors such as arrogance and ignorance on the intention to engage in financial fraud.

The optimal role of CG mechanisms through ownership structure and audit committee influences the tendency of managers who have high egos to carry out FFR. This research obtained different findings, such as CG mechanisms, strengthening the relationship between arrogance and FFR. In connection with the characteristics of state-owned companies whose majority shares are owned by the government and their obligation to serve the public interest, SOE's are requiredto continue to be transparent and accountable and maintain integrity (Alzoubi et al., 2013). CG mechanisms drive managers to give an excellent reputation to the public because they carry the government's name. According toTriyanto (2020), managers want to maintain their reputation by upholding transpa-rency, accountability, responsibility, independence, and fairness. One example of transparency is the composition of the executive board and deputy commissioners. As a result, the more CEO photos, the less FFR. This is because CG mechanisms can also help increase individual or organizational un-derstanding of the legal and reputational conse-quences of FFR (Utami & Pusparini, 2019). This is proven by the findings of this study, which state that the optimal role of CG mechanisms can weaken the relationship between ignorance and FFR. The audit committee's involvement and institutional ownership can increase managers' knowledge regarding the consequences of their fraudulent fi-nancial behavior (Sarikhani & Ebrahimi, 2022). Thus, CG mechanism not only functions as a barrier against fraudulent behavior but also as a driver to increase awareness and understanding of the importance of integrity in running a business (Mahboob, 2022).

Hypotheses 8, 9, 10, 11, and 14 are rejected, indicating that CG mechanism does not moderate the effect of pressure, opportunity, rationalization, capability, and greed on FFR. This is consistent with the results of research conducted byPutri & Irwandi (2017) that the relationship between support for the situation faced by managers and their well-being and response to the crisis is separate from their passion for carrying out FFR. According toChen et al. (2023), CG mechanism could not weaken the relationship between opportunity and FFR. In addition,the optimal role of CG mechanism does notinfluence managers' tendency to take advantage of opportunities to carry out FFR (Situngkir & Triyanto, 2020).Triyanto (2020) also states that CG mechanism cannot weaken the relationship between Capability and FFR. Finally, strong CG mechanism does not undermine the relationship between greed and FFR. This can be linked to the fraud heptagon theory which identifies seven factors that influence the occurrence of fraudulent financial reporting.

Factors such as pressure, opportunity, rationalization, capability, arrogance, igno-rance, and greed are not always the main drivers of FFR (Yusof, 2016). Likewise, the role and function of the CG mechanism still need to be optimized to overcome FFR in BUMN. However, CG mechanisms can still be a solution to create an environment where psy-chological factors such as arrogance and ignorance do not have room to develop and trigger FFR. CG mechanisms not only serve as a barrier to FFR risks but also promote awareness and understanding of the legal and reputational consequences of FFR. State-owned companies shouldimplement good corporate governance mechanisms to improve good management practices, transparency, accoun-tability, and a culture that encourages high integrity and ethics.

Companies should also consider other factors in the fraud heptagon theory that can influence financial fraud occurrences. Thus, companies need to adopt a holistic approach to preventing financial fraud, not only focusing on specific psychological factors such as pressure, opportunity, rationaliza-tion, capability, and greed, but also considering all aspects related to the fraud heptagon theory to en-sure that their internal control systems and CG me-chanisms can effectively prevent, detect, and re-spond to potential financial fraud occurrences (Rehman & Hashim, 2020).

5. CONCLUSION, IMPLICATION, SUG-GESTION, AND LIMITATIONS

The results of this study show that pressure and rationalization have a effect on FFR in State-Owned Enterprises listed on the Indonesia Stock Exchange (IDX) in the period of 2018-2021. Pressure, as proxied by financial pressure represented by the leverage ratio, has an effect on FFR. Opportunity, as proxied by the independent board of commissioner ratio, has no effect on FFR. Rationalization, as proxied by auditor independence, has an effect on FFR. This means that maintaining auditor independence by frequently changing auditors can prevent FFR. Capability, as proxied by change in director, has no effect on FFR. Arrogance, ignorance, and greed, as proxied by the number of CEO photos, corporate governance courses for executive and non-executive directors, and average remuneration using the remuneration ratio, do not have an effect FFR. So, it can be concluded that several dimensions in the heptagon fraud theory do not significantly have an effect on detecting FFR in State-Owned Enterprises because there are differences in characteristics between state-owned companies and private companies.

CG mechanism moderates the effect of arrogance on FFR. CG mechanism can weaken management arrogance and prevent it from committing fraudulent financial reporting. This means that state-owned companies with institutional ownership by the government and the independence of the audit committee can reduce the high level of CEO arrogance. CG mechanism also moderates the effect of ignorance on FFR. Implementing CG mechanisms by providing education and training for the board of directors can help reduce the risk of FFR.

It is expected that this study enable regulatory authorities in SOEs to understand how much each factor of the fraud heptagon theory can be relied on in detecting fraudulent financial reporting. This study also provides clues about which factors are emphasized when detecting fraudulent financial reporting using this model. The limited sources of information in this study resulted in obstacles in describing the heptagon fraud model comprehensively. Therefore, further research is suggested to add sources of information on the heptagon fraud model and expand the scope of the study, including using proxies, adding years, or using situational variables such as disclosure systems, culture, or extensive data analysis as moderating variables.

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