Fraudulent Financial Reporting Analysis Using Fraud Diamond Theory in Indonesia Manufacturing Industry

Analisis Fraudulent Financial Reporting Menggunakan Fraud Diamond Pada Industri Manufaktur

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Abstract - This study investigates the impact of the fraud diamond theory on financial statement fraud in companies, considering pressure, opportunity, rationalization, and capability as its components. The aim of this study is to make a contribution by assisting in identifying and preventing occurrences of fraudulent financial reporting. It analyzes 785 observations from 157 manufacturing companies listed on the Indonesia Stock Exchange between 2017 and 2021, using secondary data from annual reports and capital IQ. The research categorizes data into indicated and non-indicated fraudulent financial reporting, identified through p-score and z-score comparisons. Logistic regression using STATA is the chosen research method. The findings reveal that external pressure and financial targets, among the pressure elements, significantly contribute to a negative impact on fraudulent financial reporting. On the other hand, rationalization, measured by auditor changes, exhibits a significant positive influence. However, financial instability, opportunity assessed through effective monitoring and audit committee presence, and capability measured by director changes do not significantly affect the occurrence of fraudulent financial reporting. Therefore, this study is expected to contribute by helping identify and prevent fraudulent financial reporting.

Keywords: Fraud Diamond, Fraudulent Financial Reporting.

Abstrak - *Studi ini menganalisis bagaimana teori fraud diamond, yang mencakup tekanan, kesempatan, rasionalisasi, dan kapabilitas, dapat mempengaruhi motivasi manajemen perusahaan untuk terlibat dalam kecurangan laporan keuangan. Data penelitian melibatkan 785 observasi dari 157 perusahaan manufaktur di Bursa Efek Indonesia antara 2017 dan 2021, dengan menggunakan data sekunder dari laporan tahunan dan capital IQ. Data dibagi menjadi dua kelompok: yang menunjukkan indikasi kecurangan dalam laporan keuangan dan yang tidak, diidentifikasi melalui perbandingan Δp-score dan Δz-score (Ozcelik, 2020). Metode penelitian yang digunakan adalah analisis regresi logistik dengan aplikasi STATA. Hasil penelitian menunjukkan bahwa elemen tekanan yang diukur dari ketidakstabilan keuangan tidak berpengaruh signifikan. Namun, tekanan eksternal dan target keuangan berdampak negatif signifikan pada kecurangan laporan keuangan. Kesempatan yang diukur melalui pemantauan efektif dan keberadaan komite audit tidak memiliki pengaruh signifikan. Rasionalisasi yang diukur melalui pergantian auditor berdampak positif secara signifikan. Sementara itu, elemen kapabilitas yang diukur melalui pergantian direktur tidak berdampak signifikan terhadap terjadinya kecurangan laporan keuangan. Adapun studi ini diharapkan dapat memberikan kontribusi dengan membantu mengidentifikasi dan mencegah terjadinya kecurangan laporan keuangan.*

Kata Kunci: Fraud Diamond, Kecurangan Laporan Keuangan

INTRODUCTION

Financial statement is a report for stakeholders that can be used as guidance in decision making (Diansari & Wijaya, 2019). Therefore, financial statements must be accurate, relevant, and free from errors (Respati & Rizani, 2018). Unfortunately, existing literature found that there are still several cases of fraudulent financial reporting committed by management (Rizani & Respati, 2018; Umar et al., 2020). This happened because of the purpose of the company's image and reputation. Adusei & Anning (2020) argue that the number of financial reporting fraud has increased since scandals in Enron, Tycon, and World Com revealed to the public. In 2020, there were 2,504 fraud cases in 125 countries, with the Asia Pacific region placed third (ACFE, 2020). Among those, 36 cases were found in Indonesia. Although financial reporting fraud is not the most commonly committed type of fraud, it has the most detrimental impact compared to other types of fraud, with an average loss of $954,000

(Umar et al., 2020). ACFE (2020), found that the manufacturing industry incurred the highest total losses due to fraud, reaching $198,000. Moreover, previous studies have found contradictory results related to the fraud variables. Therefore, this study aims to examine if the fraud diamond elements such as opportunity, rationalization, and capability influence the occurrence of fraudulent financial reporting, particularly in the manufacturing industry in Indonesia.

The COVID-19 pandemic plays a role in the significant company's financial losses. As a result, companies have been striving to maintain financial performance stability (Anas & Ismawati, 2022). Meanwhile, the findings on previous studies are based on data before the pandemic. Therefore, it would be interesting to include data from the pandemic period as in this study. Additionally, this study uses the z-score and p-score comparisons developed by Pustylnick (2009) in determining fraud indications which are rarely used in Indonesia context. In conclusion, the aim of this study is to make a contribution in identifying and preventing the occurrences of financial reporting fraudulent

LITERATURE REVIEW

Agency Theory

This article uses agency theory, where a company represents a contractual relationship between management as the agent and shareholders as the principal (Jensen & Meckling, 1976). However, in the relationship there is a possibility of a conflict of interest that can lead to an agency problem. Management, as the agent who should prioritize the principal's interests, tend to satisfy their personal interests, resulting in actions that are detrimental to the company (Jensen & Meckling, 1976).

Fraud Diamond Theory

The fraud diamond theory is an extension of fraud triangle theory proposed by Wolfe and Hermanson (2004). This development adds a fourth element "capable" to the fraud triangle theory. The reason is because fraud would not happen if the preparatory could not execute their plan. Furthermore, Wolfe and Hermanson (2004) state that opportunity opens the door to fraudulent actions, while pressure and rationalization serve as elements that lead the perpetrator to that door. Capability, on the other hand, causes the perpetrator to be aware that there is opportunity to do fraud and enable them to do the action and enter the door.

Fraudulent Financial Reporting

Fraudulent financial reporting refers to the manipulation of a company's financial statements (Albrecht et al., 2015). Such fraudulent activities arise because of pressures that come both from internal and external, and weak control systems (Kucuk & Uzay, 2009). In practice, this type of fraud can be carried out through various means (Tuannakota, 2007). One common example is fraudulent revenue manipulation which involves inflating net income and assets. This fraud aims to attract investors by creating an image that a company has potential than its actual condition. Underreporting liabilities are another type of common fraud. This type of fraud reports its liabilities below actual with the aim to allow company decrease its debt-to-equity ratio and resulted in a higher financial independence.

One method in detecting fraudulent financial reporting is applying the Altman z-score formula by Edward I. Altman (1986). This formula is capable of assessing the risk of a company's bankruptcy. Later, the formula was refined by Pustylnick (2009) by comparing two scores, z-score and p-score, to specifically detect fraudulent financial reporting. Using this method, it is found that there would be indications of fraudulent financial reporting when p-scores are higher than z-score.

Financial Instability

Managers face pressure when the financial stability of the company is threatened by industry and economic conditions. The requirement to show that a company gains high profits and returns adds more pressure to managers. It is important for a manager to show that company's assets are well-managed. Unfortunately, this pressure leads the manager manipulate information related to the assets growth (Supri et al., 2018). In saying this, there is a possibility of fraudulent financial reporting when a significant increase in a company's total assets is detected. This would be in line with Deloitte's (2018) that found 50% of financial statement fraud can be attributed to property, plant, and equipment. Therefore, the first hypothesis on this study would be:

H1a: Financial instability has a positive effect on the occurrence of fraudulent financial reporting

External Pressure

According to Supri et al. (2018), external pressure is one of the pressure elements in the fraud diamond theory. External pressure arises to ensure that the company demonstrates good financial performance and high profits in order to attract potential investors. Moreover, entities face the pressure of obtaining financial resources frequently from external parties to finance their operational cost (Ozcelik, 2020). One of the external financial resources would be from borrowing. Driven by this needs, executives may engage in financial statement fraud by manipulating income to demonstrate a good performance and meet the loan requirements. Ojilong and Omukaga (2021) measured external pressure using the level of debt. It is found that there is a significant influence of external pressure on the occurrence of fraudulent financial reporting. Therefore, the second hypothesis for this study would be:

H1b: External pressure has a positive effect on the occurrence of fraudulent financial reporting

Financial Target

Pressure could also appear when the executives set financial targets to management (Demetriades & Agyei, 2022) and leads to financial statement fraud (Ozcelik, 2020). An indicator that can be used in showing that a company has good operational performance is returns on assets (ROA) (Skousen et al., 2008). ROA also can be used to reflect the efficiency of assets usage in generating profit. In saying that, managers may engage in fraud by manipulating numbers in financial statements to meet the ROA target to align with the expected outcome (Surjaatmaja, 2018). Therefore, the next hypothesis for this study would be:

H1c: Financial target has a positive effect on the occurrence of fraudulent financial reporting.

Effective Monitoring

In effective controls and corporate governance systems could set opportunities for fraud (Ojilong & Omukaga, 2021). Sunardi & Amin (2018) argue that a company needs to have effective controls to minimize fraud. According to Ozcelik (2022), audit firms that are included in a "big four" could become an indicator on effective monitoring. The credibility of those in a "big four" are considered trustworthy and capable of limiting fraud within companies compared to other public accounting firms. Therefore the size of the public accounting firm will affect the likelihood of financial statement fraud occurring in a company. Next hypothesis on this study would be:

H2a: Effective monitoring has a negative effect on the occurrence of fraudulent financial reporting

Audit Committee

Audit committee is a part of the company appointed by the board of commissioners to examine directors' performance in managing the company (Samsul, 2015). Khamainy et al. (2021) suggest that the audit committee supposed to have a negative effect on the occurrence of fraudulent financial reporting. To be effective, Turgay & Caliyurt (2017) argue that audit committee should consists of at least three members and is responsible for examining the company's accounting system, public disclosure of financial statements, and the effectiveness of internal control. Therefore, the quality of the company's financial reporting could increase when the number of audit committee members increases. Accordingly, the audit committee plays a role in enhancing audit effectiveness and reducing the likelihood of fraudulent financial reporting (Indarto & Ghozali, 2016; Supri et al., 2018). Fourth hypothesis in this article would be:

H2b: The audit committee has a negative effect on the occurrence of fraudulent financial reporting

Auditor Change

From an accounting perspective, auditors can serve as a rationalization basis to explain, allow, or provide reasons for fraudulent activities (Skousen & Wright, 2009). SAS no. 99 states that the effect of an auditor change in a company can indicate the presence of fraud (AICPA, 2002). Ojilong and Omukaga (2021) found a positive relationship between auditor change and financial statement fraud. It is believed that auditors who have been working in a company for several years have a higher ability to detect fraud. Therefore, the auditor changes will lead to an increasing possibility of fraud occurring (Hanum, 2014; Kurniawati, 2012). The fifth hypothesis on this study is:

H3: Auditor change has a positive effect on the occurrence of fraudulent financial reporting

Change of Directors

Beasley et al. (2010) found that 70% of fraud in the United States public companies involves executives. The executives could control the company's internal controls, which can lead to fraudulent financial reporting so that the company appears to achieve certain results. Sunardi & Amin (2018) showed that the capability measured with auditor changes has a positive effect on fraud. The changes could indicate the board members' removal who are likely to engage in fraud. As a result, new board members will require more time to adapt to the company's conditions, resulting in suboptimal performance (Demetriades & Agyei, 2022). Therefore, it can be concluded that the more frequent on board changes means the higher the indication of fraud. This leads to our sixth hypothesis:

H4: Change of Directors has a positive effect on the occurrence of fraudulent financial reporting

Firm Size

According to Nugraha & Henny (2015), control variables ensure the influence of independent variables on the dependent variable is not affected by external factors. The control variable in this study is measured by firm size. According to Machfoedz (1994), firm size is the scale that can be measured using various factors such as total assets and stock value. Lou and Wang (2009) argue that firm size is related to internal control, where a high level of internal control could reduce the likelihood of fraudulent actions. Therefore, it can be concluded that firm size has a negative impact on fraudulent financial reporting (Nugraha & Henny, 2015).

RESEARCH METHOD

Data Selection

This study uses secondary data sources from 270 company's annual reports and capital IQ. From 2017 to 2021 there are a total of 1,350 data points. However, only data of 158 companies, with a total of 785 data points, that could be used after applying several selection criteria such as excluding companies that underwent an IPO from 2018 to 2021.

Dependent Variable

The dependent variable of this research is fraudulent financial reporting, which refers to the deliberate manipulation of financial information in order to deceive users of financial statements. Several factors, such as organizational structure, weak internal controls, and internal pressure, contribute to the occurrence of financial fraud (AICPA, 2002).

A comparison between Δp-score and Δz-score is being used in this article to measure fraudulent financial reporting. The occurrence of financial statements would be detected when the p-score exceeds the z-score. For that reason, below is the formula on z-score:

$$Z = 1.2 * X_1 + 1.4 * X_2 + 3.3 * X_3 + 0.6 * X_4 + 1. * X_5 \tag{1}$$

Explanation:

X_1 = Working capital/total assets; X_2 = Retained earnings/total assets;

X_3 = Earnings before interest and taxes/total assets; X_4 = Market value equity/book value of liability

X_5 = Sales/total assets; Z = Overall index

Meanwhile, the formula of the p-score is:

$$P = 1.2 * X_1 + 1.4 * X_2 + 3.3 * X_3 + 0.6 * X_4 + 1. * X_5 \tag{2}$$

Explanation:

X_1 = Shareholders equity/total assets; X_2 = Retained earnings/total assets

X_3 = Earnings before interest and taxes/total assets; X_4 = Market value equity/book value of liability

X_5 = Revenue/total assets; P = Overall index

The formulation of p-score is derived from the observation of multiple cases of financial reporting fraud associated with improper revenue recognition and alterations in revenue figures (Agrawal & Chadha (2004), in Pustylnick 2011). Deloitte (2008) found that more than half of the reported financial fraud involve inaccuracies in revenue recognition, particularly related to property, plant, and equipment.

Independent Variable

The independent variables in this study represent the elements of the fraud diamond theory. Variables on financial stability, external pressure, and financial targets are being used to measure pressure

elements. While, effective monitoring and audit committees will measure opportunity elements and auditor changes will measure rationalization. Lastly, directors' changes will measure capability elements. Details measurement of each variable is presented on the table below:

Table 1. Variable Measurement Table

Dependent Variable		
Variable	Reference	Measurement
Fraudulent Financial Reporting	Ozcelik, (2020)	ΔZ-Score < ΔP-Score $Z = 1.2 * X1 + 1.4 * X2 + 3.3 * X3 + 0.6 * X4 + 1.* X5$

Independent Variable				
Fraud Diamond Elements	Variable	Reference	Definition	Measurement
Pressure	Financial Stability	Ozcelik, (2020)	Asset Change (ACHANGE)	$Asset\ Change = \dfrac{Total\ Asset\ t - Total\ Asset\ t-1}{Total\ Asset\ t}$
	External Pressure	Ozcelik, (2020)	Level of Debt (LV)	$Level\ of\ Debt = \dfrac{Total\ Liability}{Total\ Assets}$
	Financial Target	Sunardi & Amin, (2018)	Return on Asset (ROA)	$ROA = \dfrac{Net\ Profit}{Total\ Asset\ t}$
Opportunity	Effective Monitoring	Ozcelik, (2020)	Audit Firm Size (AUD)	Dummy variable, where 0 = not audited by big 4 audit firm and 1 = audited
	Audit Committee	Indarto & Ghozali, (2016); Supri et al. (2018)	Audit Committee Ratio (AUDCOM)	$Audit\ Committe = \dfrac{Jumlah\ Komite\ Audit}{Jumlah\ Dewan\ Komisaris + Jumlah}$
Rationalization	Auditor Change	Ojilong & Omukaga (2021)	Auditors Change (AUDCHANGE)	Dummy variable, where 0 = no changes in auditor and 1 = changes in auditor
Capability	Change of Directors	Khamainy et al. (2021); Sunardi & Amin (2018)	Change Of Directors (BCHANGE)	Dummy variable, where 0 = no changes in directors and 1 = changes in directors

Control Variable			
Variable	Reference	Definition	Measurement
Firm Size	Nugraha & Henny (2015)	Firm Size (SIZE)	$Firm\ Size = In\ (total\ aset)$

Source : Data processed (2022)

Data Analysis Method

This study applies hypothesis testing with a logistic regression model using the STATA application. The logistic regression model was chosen because the dependent variable in this study is a dichotomous or dummy variable (Ghozali, 2011). A one will be assigned to a company that indicates doing fraudulent financial reporting while a zero will be given to a company that is not indicating fraudulent financial reporting. Akgul & Cevik (2003) argue that it is unnecessary to conduct a test normality nor classical assumption on independent variables in the analysis. When the dependent variable uses a dichotomous variable, its residuals do not require such testing (Rukini, 2016). However, this study performs the Hosmer and Lemeshow test to assess the model's fitness, tests for multicollinearity, and tests the coefficient of determination. For that reason, the model that being used in the study would be:

$FFR_{it} = \beta_{0it} + \beta_1 ACHANGE_{it} + \beta_2 LV_{it} + \beta_3 ROA_{it} + \beta_4 AUD_{it} + \beta_5 AUDCOM_{it} + \beta_6 AUDCHANGE_{it} + \beta_7 BCHANGE_{it} + \beta_8 SIZE_{it} + \varepsilon_{it}$ (3)

Explanation:

FFR = Fraudulent financial reporting; β = Coefficient; ACHANGE = Change in company assets;
LV = Company debt ratio; ROA = Return on asset; AUD = Audit firm;

AUDCOM = Audit committee ratio; AUDCHANGE = Company's auditor change;
BCHANGE = Company's director change; SIZE = Firm size; Ɛ = Standard error;
i = Cross-sectional units; t = Time period (year)

FINDING AND DISCUSSION
Data Description Analysis
Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FFR	785	0,5095	0,50022	0	1
ACHANGE	785	0,0712	0,20564	-0,56	1,68
LEV	785	0,5196	0,49346	0,035	5,17
ROA	785	0,0391	0,06276	-0,3625	0,4104
AUD	785	0,3464	0,47615	0	1
AUDCOM	785	0,3863	0,13843	0,2	1
AUDCHANGE	785	0,1286	0,33503	0	1
BCHANGE	785	0,1898	0,39239	0	1
Size	785	14,7693	1,52120	11,4	19,005

Source : Data processed (2023)
Variable Explanation:
FFR = fraudulent financial reporting; ACHANGE = assets change; LEV = level of debt; ROA = return on asset; AUD = big four audit firm; AUDCOM = audit committee; AUDCHANGE = auditor change; BCHANGE = director's change; SIZE= firm size.

Table 2 provides descriptive statistics for various variables in the research. The dependent variable is fraudulent financial reporting (FFR), which is determined by comparing z-score and p-score. If p-score is higher than z-score, it's labeled as an indication of financial fraud and assigned a value of 1; otherwise, it's assigned 0. On average, FFR is 0.51, suggesting that 51% of sample companies have indications of financial fraud.

The first independent variable, financial instability (ACHANGE), represents pressure and measures changes in assets. The average ACHANGE is 0.07, indicating a 7% increase in total assets. The highest ACHANGE is 1.68, representing a 168% asset increase, while the lowest is -0.56 in 2020 by PT Tirta Mahakam Resources Tbk.

Second independent variable, level of debt (LEV), measures external pressure and is the ratio of total liabilities to total assets. The average LEV is 0.52 (52%), with the highest at 5.17 in 2020 by PT Asia Pacific Fibers and the lowest at 0.035 in 2020 and 2021 by PT Buana Artha Anugerah.

Return on assets (ROA), measuring financial target, has an average of 0.03, indicating a 3% average ROA. The highest ROA is 0.41 in 2017 by PT Multi Bintang Indonesia Tbk, while the lowest is -0.36 in 2020 by PT Tirta Mahakam Resources Tbk.

Opportunity as the third element includes the external auditor variable (AUD). On average, 34% of companies are audited by big four accounting firms (AUD = 0.34).

Audit committee variable (AUDCOM) also falls under the opportunity element, with an average of 0.38, suggesting that companies typically have a small audit committee.

Rationalization is measured through auditor change (AUDCHANGE), with an average of 0.12, indicating that 12% of companies experience auditor changes.

The capability element involves director change (BCHANGE), with an average of 0.18, indicating that about 18% of companies undergo director changes.

Lastly, firm size as control variable is measured by natural logarithm (ln) of total assets. The average ln total assets is 14.77, with the highest at 19.005 in 2021 by PT. Primarindo Asia Infrastructure Tbk and the lowest at 11.4 in 2017 by PT. Indofood Sukses Makmur Tbk.

Fraudulent Financial Reporting Analysis
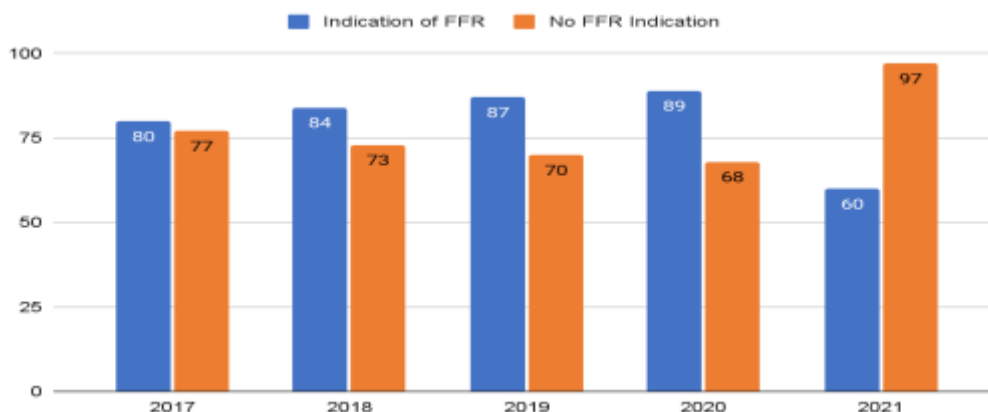Figure 2 shows the companies that indicate doing financial statement fraud:

Figure 2. Bar Chart of Fraudulent Financial Reporting Indication Results

Source : Data processed (2023)

From figure 2, it can be seen that there is an increasing number of companies suspected engaging in fraudulent financial reporting each year. The highest number was occurring in 2020 with a total of 89 companies. This finding aligns with ACFE's report (2021) that indicates a surge in fraud cases at the beginning of the pandemic. However, the ACFE report does not provide further details on the specific types of fraud experiencing the most significant rise and industries that involved. Nevertheless, the increasing number of fraud cases has led to increased scrutiny and vigilance among companies. As reported by ACFE (2021), approximately 80% of companies have made changes to their anti-fraud programs, resulting in a declining number of companies suspected of fraudulent financial reporting in 2021.
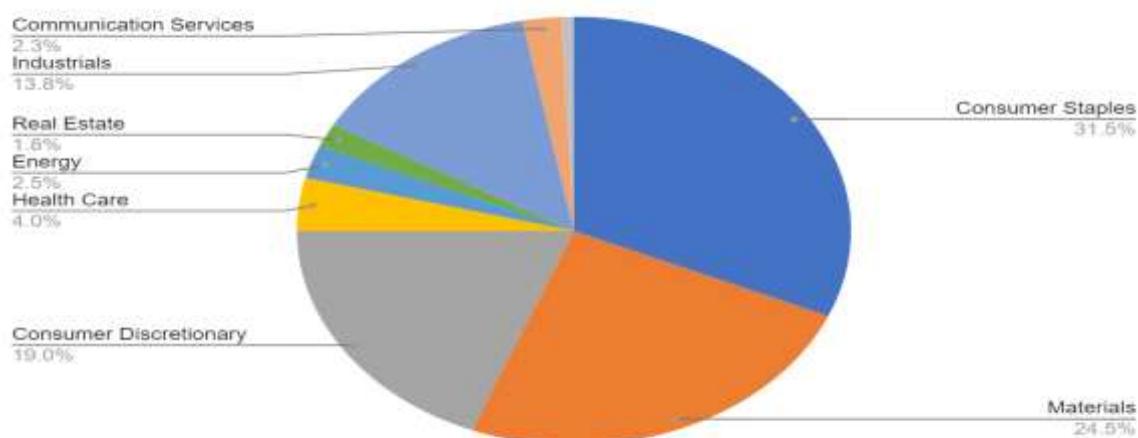

Figure 3. Pie Chart of Sub-Sectors with Indications of Fraudulent Financial Reporting

Source : Data processed (2023)

Figure 3 shows that based on industry sub-sectors, the consumer staples has the highest number of indications of fraudulent financial reporting (FFR), amounting to 31.5%. Consumer staples, which mainly includes food products, is a sub-sector that produces and sells items consumed regularly by people. As food is an essential commodity always in demand, it becomes vital for companies in this sector to demonstrate consistent performance to earn consumer confidence. Consequently, there is internal pressure within these companies to present financial reports that reflect stable financial conditions.

Hosmer and Lemeshow Test

Results from the study shows that the Prob > Chi2 is equal to 0,6104. Therefore, H0 (the null hypothesis) is accepted since the significance value is greater than 0.05 or 5% and the logistic regression model is deemed suitable for use. In conclusion, the logistic regression model is capable of explaining the data and there is no significant difference between the model and the observed values.

Multicollinearity Test

From the test, all the data had VIF values < 10, indicating that the independent variables did not have significant correlations with each other. This suggests that the research model is free from multicollinearity.

Logistic Regression Test

Table 3 shows the results of logistic regression in the study:

Table 3. Logistic Regression

FFR	Coef.	p>|z|
ACHANGE	0,4879	0,205
LEV	-0,3103	0,047**
ROA	-5,3642	0,001***
AUD	-0,0196	0,908
AUDCOM	-0,7069	0,265
AUDCHANGE	0,3952	0,077*
BCHANGE	0,1150	0,550
Size	0,0770	0,198
_CONS	-0,5573	0,578
*Significant at α = 10%		
**Significant at α = 5%		
***Significant at α = 1%		

Source : Data processed (2023)

Variable Explanation:

ACHANGE = assets change; LEV = level of debt; ROA = return on asset; AUD = big four audit firm; AUDCOM = audit committee; AUDCHANGE = auditor change; BCHANGE = director's change; SIZE = firm size

The Effect of Financial Instability on Fraudulent Financial Reporting

Testing on the first hypothesis in measuring pressure elements shows a significant p-value of 0,205. This means that hypothesis H1a is rejected and does not affect fraudulent financial reporting.

The high value of assets change indicates significant changes, particularly an increase in total assets of a company compared to the previous year. According to Khamainy et al. (2021), the increase in total assets reflects that the company performed well in that year, thereby not affecting the level of pressure within the company. Similarly, Fajri (2018) states that although a company may be stable, it does not eliminate the possibility of financial statement fraud. Hence, changes in assets are not a significant factor in determining either a company is suspected of committing financial statement fraud or not.

The Effect of External Pressure on Fraudulent Financial Reporting

Results in testing hypothesis H1b shows a significant p-value of 0,047 at a 5% significance level (α), indicating that the hypothesis is accepted and has a negative influence. It means that external pressure is one of the factors measured by the level of debt, and its relationship contradicts (Bawekes et al., 2018; Faradiza, 2019; Rahman, 2019; Septriyani and Handayani, 2018). The higher the level of debt of a company, the lower the likelihood of fraudulent financial reporting.

According to fraudulent financial reporting theory, external pressure plays a role as one of the main reasons behind financial reporting fraud in companies. A high level of debt signifies a large amount of borrowing. Ijudien (2018) explains that when a company borrows excessively, creditors tighten their supervision over the company, which reduces management's opportunities for fraud. However, the decrease could occur due to the absence of pressure from creditors on the company resulting from a good relationship between the company and creditors (Rengganis et al., 2019). Therefore, the chances of financial reporting fraud by the management are lower because of the absence of such pressure.

In addition, there are other factors that contribute to the negative relationship between the level of debt and fraudulent financial reporting. A high level of debt may occur because a company taking out loans for operational expansion purposes, rather than due to poor financial conditions. For example, PT Asia Pacific Fibers Tbk has the highest level of debt by 5.03 in 2020. However, the company's Z-

score indicates that the company does not exhibit signs of financial distress, which is also demonstrated by the absence of indications of fraudulent financial reporting. It can be concluded that the high borrowing may be driven by the company's plans for expansion, thereby not affecting the level of management pressure to manipulate and engage in fraudulent financial reporting.

The Effect of Financial Target on Fraudulent Financial Reporting

Return on assets (ROA) used to measure financial targets shows a significant p-value of 0.001 at a 1% significance level (α). This means that hypothesis H1c is rejected and did not affect in detecting fraudulent financial reporting.

Financial targets can be measured using Return on Assets (ROA) because it indicates a company's ability to effectively use all its assets to generate profit. A low financial target indicates that a company's ROA is also low, increasing the likelihood of the company engaging in financial statement fraud (AICPA, 2002). When a company's ROA is low in a given year, its financial performance reflected in the financial statements will be perceived as poor. This situation creates pressure within the company to improve its financial reports to appear in a healthy condition (Demetriades & Agyei, 2021). As a result, companies might resort to various means, including manipulation and financial statement fraud.

Abdullahi and Mansor (2015) argue that in the pressure component of the fraud diamond, when a party, in this case, the company, feels under pressure, they will be motivated to commit fraud.

The Effect of Effective Monitoring on Fraudulent Financial Reporting

In hypothesis H3, the research results show a significant p-value of 0.078 at a 10% significance level (α). This means that effective monitoring, as one of the external factors in detecting fraudulent financial reporting, has a significant positive influence. These findings align with Setiawati & Baningrum (2018).

In measuring effective monitoring, companies are categorized based on the public accounting firms that audit their financial statements. According to Suripto and Jayadih (2022), public accounting firms included in the big four are trusted and have higher credibility compared to other public accounting firms. In this study, if a company is audited by a big four accounting firm, it is classified as "one," and if not, it is classified as "zero".

Being audited by a big four public accounting firm does not guarantee that a company is free from financial statement fraud. This is because these public accounting firms are oriented towards producing results to earn income, and companies need external audits to obtain reasonable financial information. As evidence would be the cases of PT. Hanson International audited by EY in 2016 and PT SNP Finance audited by Deloitte in 2019. As reported by CNBC

Indonesia (2020), both companies were found to have reported untrue financial conditions and engaged in financial statement manipulation.
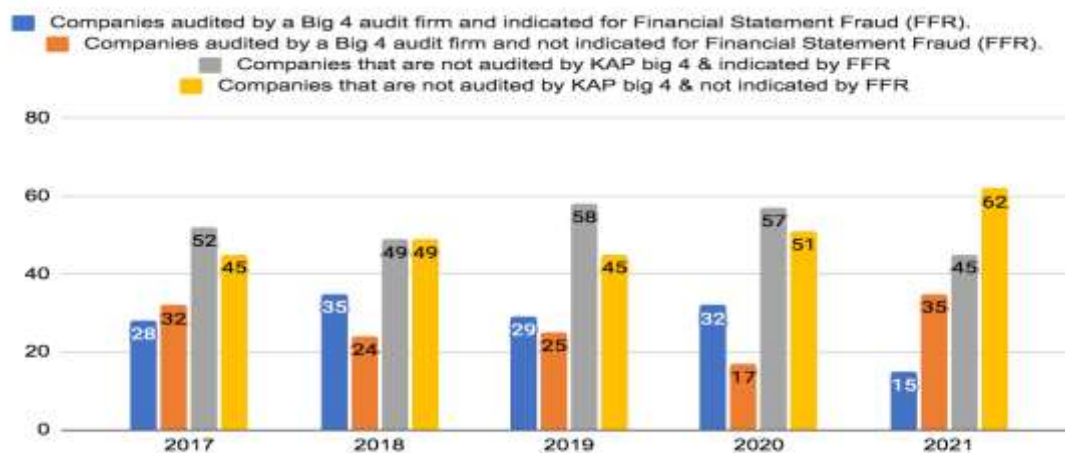

Figure 4. Bar Chart of Company Composition based on KAP Conducting Audit
Source : Data processed (2023)

Furthermore, from figure 4.3 it can be seen that the number of companies audited by big four public accounting firms and not suspected of fraudulent financial reporting is not always lower than the number of companies audited by big four public accounting firms and suspected of fraudulent financial reporting. The same applies to the number of companies not audited by big four public accounting firms.

Similarly, Suripto and Jayadih's (2022) found that the size of the public accounting firm does not have an influence on financial statement fraud because the audit quality is based on the competence of the audit practice, which includes fieldwork standards, general standards, and reporting standards. Therefore, there is no significant difference between big four public accounting firms and non-big four firms in terms of their impact on financial statement fraud.

The Effect of Audit Committee on Fraudulent Financial Reporting

The results of the audit committee test, measured by the number of audit committee members, showed a p-value of 0.265, indicating that the number of audit committee members does not have a significant impact on fraudulent financial reporting. Therefore, hypothesis H2b is rejected. This finding is consistent with the research conducted by Indah (2016), Sariutami and Nurbaiti (2016), and Wahyudi et al. (2022).

Tessa and Harto (2016) argue that weak oversight from the audit committee, which should play a role in monitoring the performance of the board of commissioners, cannot be classified as a primary factor causing companies to be implicated in financial fraud. Supporting with this, Wolfe and Hermanson (2004) argue that fraudulent actions cannot occur without the fourth element, which is capability. In other words, the perpetrator of fraud must be someone who has the capability to realize their plans.

A regulation from the Financial Services Authority (OJK) Number 55/POJK.04/2015 regarding the establishment and guidelines for the implementation of audit committees states that every public company must have an audit committee consisting of a minimum of three independent members. Chasanah et al. (2020) suggests that it is possible for companies to appoint or add audit committee members only as a formality or to comply with OJK regulations. Additionally, Wahyudi et al. (2021) argues that the board of commissioners may create changes if the audit committee is not aligned with management decisions. In conclusion, a high value of the audit committee does not guarantee a lower likelihood of financial fraud.

The Effect of Auditor Change on Fraudulent Financial Reporting

A test results for the rationalization measured by auditor change, showed a p-value of 0.077, indicating that external auditor changes have a positive significant effect on fraudulent financial reporting. In the fraud triangle theory, rationalization arises because the perpetrator seeks justification for their actions (Cressey, 1954). When management faces pressure, they will look for loopholes to avoid detection by auditors (AICPA, 2002).

SAS No. 99 (AICPA, 2002), stated that changes in auditors at a company can be an indication of fraud. The outgoing auditor is more likely to detect vulnerabilities or opportunities that management may exploit in committing fraudulent financial reporting. This is because the outgoing auditor has a deep understanding of the company's business and accounting systems and possesses more in-depth knowledge of the transactions that typically occur within the company. Additionally, with access to previous audit data, the outgoing auditor can compare past data and audit findings, making it easier to identify suspicious patterns and trends (Kurniawati, 2012). With a change in auditors, perpetrators of fraud can erase their tracks and potentially receive a favorable audit outcome because it limits the new auditor's access to information and understanding of management behavior. As a result, the perpetrators can justify or rationalize their actions (Pusphita & Yasa, 2018).

The Effect of Change of Directors on Fraudulent Financial Reporting

A test result for the capability element, shows a p-value of 0.550, which indicates that the number of changes in financial directors and/or chief directors responsible for financial reporting does not have a significant impact on fraudulent financial reporting. Therefore, hypothesis H4 is rejected. This finding is consistent with Sihombing and Rahardjo (2014), Bawekes et al. (2018), and Apriliana and Agustina (2017).

Looking from agency theory, there is an agency problem that leads to white-collar crime. White-collar crime is committed by individuals who hold high socio-economic status and is facilitated by elements of opportunity, pressure, and rationalization (Sutherland, 1940 in Agyei, 2022). According to Soley (2017), there are two types of white-collar crime, occupational crime and organizational crime. Occupational crime can be classified into three categories, including fraudulent financial reporting, asset misappropriation, and corruption. A survey by ACFE (2021) found that asset misappropriation committed by staff accounts for 86% compared to fraudulent financial reporting by executives, which only accounts for 20% of cases.

Apriliana and Agustina (2017) suggest that changes in company directors occur due to power transfers and the results of shareholders general meetings. Companies create these changes with the aim of improving performance compared to the previous period. This would be in line with Wolfe & Hermanson (2004) that stated changes in directors are driven by the primary stakeholders' desire to enhance performance by recruiting more competent directors than before. Bawekes et al. (2018) supported this viewpoint and consider director turnover as a crucial factor influencing a company's "status" and "quality" due to the strategic role of directors in effectively and efficiently enhancing organizational commitment.
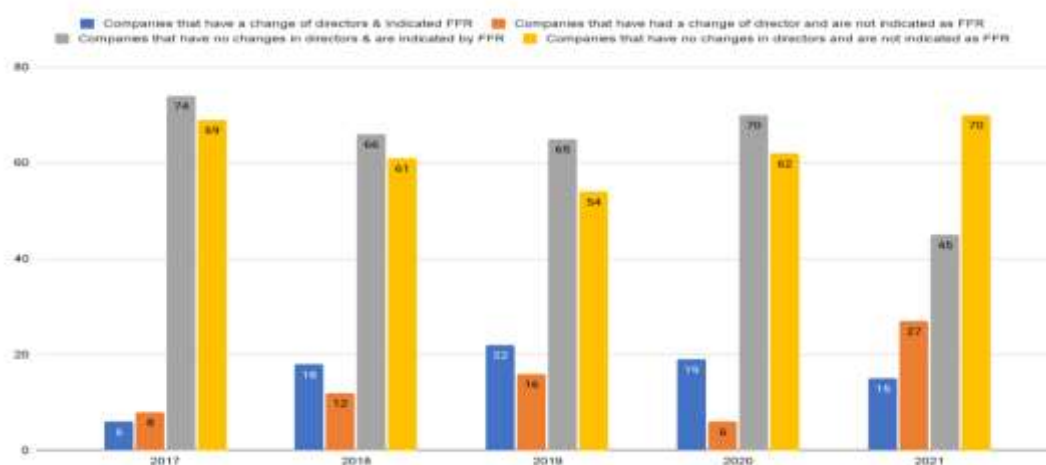

Figure 6. Bar Chart of Company Composition based on Change of Directors

Source : Data processed (2023)

Figure 6 shows that there are more companies that did not change directors but are suspected of financial statement fraud compared to the number of companies that changed directors and are suspected of financial statement fraud.
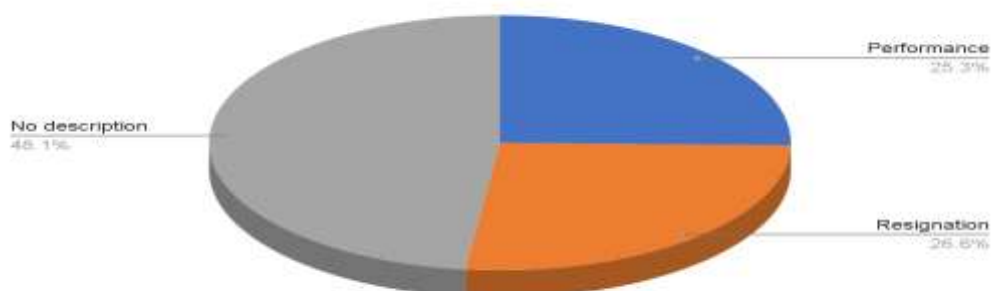

Figure 7. Pie Chart Company's Reason to Change Directors

Source : Data processed (2023)

Figure 7 shows that there are 90 companies that experienced director changes. Furthermore, 48.1% of the companies do not provide information on reasons for the director changes. While 25.3% of the companies suggest that the director changes were made with the intention of improving company performance and the remaining suggest that the changes occurred due to resignations from

the respective directors. Hence, some of these resignations because the directors are being promoted as commissioners. It can be concluded that director changes in terms of financial and chief directors do not necessarily correlate with financial statement fraud.

Coefficient Determination Test

The pseudo R^2 value is 0.0245. This means that the independent variables can explain 2.45% of the dependent variable.

SUMMARY

This study offers critical insights into the components of the fraud diamond theory and their influence on fraudulent financial reporting. In terms of the pressure element, it is revealed that financial instability, characterized by an increase in total assets, does not significantly contribute to fraudulent financial reporting because it signifies positive company performance without increasing internal pressure. In contrast, external pressure, particularly high debt levels and low return on assets (ROA), negatively impacts fraudulent financial reporting, as it compels companies to manipulate financial statements to appear financially robust. From opportunity element, it is evident that effective monitoring could not be gained although a company audited by one of the big four public accounting firms or the presence of a substantial audit committee. Good image of big four does not guarantee that a company immune from fraud and give a substantial impact on deterring fraudulent financial reporting. Auditor changes that measure rationalization element, emerges as a significant driver of fraudulent financial reporting. The study suggests that a long-standing auditor is more likely to detect opportunities for fraud, making auditor changes a potential trigger for fraudulent activities. Lastly, within the capability element, changes in company directors do not appear to significantly influence fraudulent financial reporting. Such changes are typically motivated by the desire to enhance company performance by appointing new, presumably more competent directors. Consequently, these changes are not directly linked to indications of fraud, and frequently occur because the directors got promotion to a higher level as commissioners. While this study offers valuable insights, certain limitations should be acknowledged. Specifically, the lack of detailed explanations for auditor changes and director replacements in annual reports raises questions about the accuracy of fraud indications. Moreover, it is recommended that future research should focus on the manufacturing industry, particularly the consumer staples sub-sector, which exhibits a higher propensity for fraudulent financial reporting. Additionally, in-depth analyses should be conducted on companies that display indications of financial statement fraud. From an academic perspective, this research can serve as a reference for the development of variables related to the significant elements of pressure and opportunity, particularly with the proxy of the big four public accounting firms. Meanwhile, from practical perspective, the findings may guide auditors in detecting financial statement fraud and encourage them to explore pressure variables, such as ROA and debt levels, as part of their analyses. Ultimately, this research is expected in providing benefit to business analysts, investors, and government institutions by enhancing their awareness and critical thinking regarding financial statements that may appear robust but could conceal fraudulent activities.

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