

New Fraud Diamond Model and Financial Statement Fraud Detection: Evidence from Indonesia's Non-Financial SOEs (2018-2022)

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ABSTRACT

This study examines the influence of each element of the new fraud diamond model on fraudulent financial statements in non-financial state-owned companies listed on the Indonesia Stock Exchange (IDX). The study population consisted of all non-financial state-owned companies listed on the Indonesia Stock Exchange (IDX) in the 2018-2022 period. Purposive sampling was used to select the samples. The total sample of this study comprises financial reports from 90 companies. Logistic regression analysis was used for hypothesis testing. The results of this study indicate that the nature of the industry and history of sales have a proven positive effect on financial statement fraud. However, other variables, namely, financial stability, external pressure, personal financial needs, external pressure, financial targets, effective monitoring, earnings growth, and change in directors, have no proven effect on financial statement fraud.

INTRODUCTION

Financial statements provide information about a company's financial condition and serve as a crucial foundation for stakeholders to make informed decisions (Yendrawati *et al.*, 2019). Therefore, financial statements must be presented accurately and transparently to reflect a company's true financial position, thereby preventing fraudulent activities that could mislead users in their decision-making processes. However, when a company's financial performance is weak, it may be unappealing and negatively assessed by stakeholders, prompting management to attempt to conceal poor performance. Consequently, companies may engage in fraudulent activities by manipulating or fabricating financial statements to make them appear favorable (Sihombing & Rahardjo, 2014).

The Association of Certified Fraud Examiners (ACFE) defines fraud as an illegal act committed intentionally by individuals, either within or outside the organization, with the specific purpose of manipulating or falsifying reports to other parties for personal or group advantage, either directly or indirectly, resulting in a disadvantage to others. The Association of Certified Fraud Examiners (ACFE) classifies fraud into three forms based on actions known as the Fraud Tree: asset misappropriation, financial statement fraud, and corruption. Every two years, the ACFE conducts a fraud survey titled "Report to The Nations on Occupational Fraud and Abuse," which revealed that in 2018, 2020, and 2022, the type of fraud most detrimental to companies was financial statement fraud, with average losses in those years reaching \$800,000, \$954,000, and \$593,000, far higher than other forms of fraud. The staggering losses from financial statement fraud highlight the severe impact of this form of fraud.

Fraud of financial statement disclosure can be attributed to deficient corporate governance and inadequate internal controls (Khamainy *et al.*, 2022). If efforts to prevent and detect fraud are not implemented, fraudulent activities are likely to continue (Sari & Putra, 2023). Experts have developed several theories to detect potential fraud in financial statement disclosures. However, studies using the fraud triangle, fraud diamond, and fraud pentagon to detect potential fraud indicate that these theories are not fully effective in detecting financial statement fraud. Therefore, Gbegi & Adebisi (2013) developed a model known as the new fraud diamond model as an evolution of the fraud diamond theory, which is considered more effective in detecting factors that lead to fraud, especially financial statement fraud.

Fraudulent financial statements are common in several countries. Financial statement fraud is prevalent in Indonesia, particularly in state-owned enterprises (BUMN). According to the results of the ACFE 2019 fraud survey, state-owned enterprises (BUMN) were the second largest entity with the largest losses of 31.8%. In 2019, PT Garuda Indonesia Tbk. was widely discussed due to a financial statement fraud case, starting with a claim of a net profit for 2018 amounting to US\$809,850 or IDR 11.33 billion, which was higher than the previous year's reported loss of US\$216.58 million. Irregularities were revealed when management recorded transactions with PT Mahata Aero Technology as revenue, despite receiving receivables, leading to a significant increase in net

profit. In 2009, PT Waskita Karya Tbk. was found guilty of financial statement manipulation with the discovery of an overstatement of profit of IDR 500 billion, allegedly including the next year's projected revenue in a specific year. Fraud case at PT Waskita Karya Tbk. was uncovered again in 2018, involving 14 fictitious projects, and the Corruption Eradication Commission (KPK) noted that this case caused the state a loss of IDR 186 billion.

THEORETICAL REVIEW

Agency Theory

Jensen & Meckling (1976) introduced *agency theory* to explain the relationship between principals (shareholders) and agents (company management) through a contractual agreement that delegates tasks and authority to the agent to manage the company in the interests of the principal. Agency theory explains that when agents and principals have different interests and goals to maximize their respective benefits, they can create conflicts of interest. This conflict can lead agents to act against the principal's interests and harm them by committing accounting fraud. Conflicts of interest between the principals and agents can trigger information asymmetry. Nurbaiti & Hanafi (2017) explain that information asymmetry can provide an opportunity for agents to commit financial report fraud and conceal important information that the principal should know.

New Fraud Diamond Model

The new fraud diamond model proposed by Gbegi & Adebisi (2013) is one of the theories used to detect fraud, particularly financial statement fraud. The new fraud diamond model is a development of fraud diamond theory introduced by Wolfe & Hermanson (2004). Meanwhile, the fraud diamond theory is an enhancement of Cressey's (1953) fraud triangle theory. However, Gbegi & Adebisi (2013) explained that the fraud diamond theory has received criticism from critics, who argue that, although the fraud diamond adds a capability factor to the fraud triangle and addresses shortcomings in other theories, it is not an adequate theory for investigating, preventing, and detecting fraud. Therefore, this research uses the new fraud diamond model as an evolution of fraud diamond theory, replacing the rationalization factor with personal integrity. This theory states that rationalization is not part of corporate governance, and that sources of pressure, such as earnings management, sales growth, and profit growth are more commonly observed in corporate governance. Personal integrity can be assessed by observing the decisions made and decision-making process. Additionally, observing an individual's commitment to decision making can help assess a person's integrity. Thus, the *New fraud diamond model* explains that there are four (4) factors causing fraud: motivation, opportunity, personal integrity, and capability.

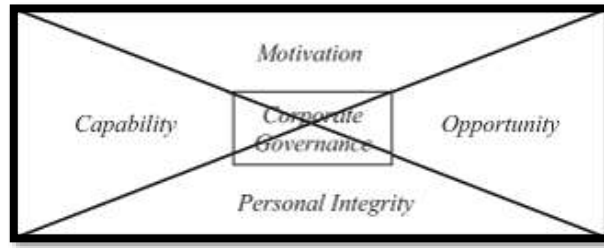


Figure 1. New fraud diamond model

Hypothesis Development

Financial Stability and Financial Statement Fraud

Financial stability reflects the instability of a company's financial condition (Skousen *et al.*, 2009). SAS No. 99 (AICPA, 2002) explains that when a company's financial stability is threatened by economic, industrial, and operational conditions, managers are more likely to experience pressure to commit to financial reporting fraud. Financial stability can be reflected in the assets owned, as they represent a company's wealth (Skousen *et al.*, 2009). A company experiencing financial instability may lead to irrational fluctuations in total assets, which may include significant increases or decreases, thereby increasing the potential for fraud in the preparation of financial statements (Khamainy *et al.*, 2022). Previous studies by Yendrawati *et al.* (2019) and Tiffani & Marfuah (2015) show that pressure variables have a positive and significant effect on financial statement fraud.

H1: Financial stability has a positive effect on financial statement fraud.

External Pressure and Financial Statement Fraud

External pressure refers to excessive pressure when external parties demand management to meet their requirements or expectations (Khamainy *et al.*, 2022). According to Skousen *et al.* (2009), one source of pressure that company management often faces is the pressure to obtain additional capital, either through debt or other external funding sources to remain competitive. When applying for new debt, creditors assess a company's financial performance in order to evaluate the credit risk involved. Companies with high debt levels reflect high credit risk, causing concern for management as it becomes less likely for the company to secure loans, given that it is considered unable to repay the provided loans, leading to potential financial statement fraud. Previous studies conducted by Rusmana & Tanjung (2020) and Sihombing & Rahardjo (2014) have proven that the external pressure has a positive and significant impact on financial statement fraud.

H2: External pressure has a positive effect on financial statement fraud.

Personal Financial Need and Financial Statement Fraud

According to Skousen *et al.* (2009), personal financial needs arise when a company's financial condition is influenced by that of its executives. The pressure from executives' personal financial needs can stem from various factors, such as meeting daily living expenses, maintaining a luxurious lifestyle, paying off debts that are due, and other issues that require money. The ownership of company

shares by executives also causes them to feel entitled to claim the company's income and assets, leading to fraud that can affect the company's financial condition. Previous studies by Skousen *et al.* (2009), Khamainy *et al.* (2022), and Sari & Lestari (2020) show that personal financial needs have a positive and significant effect on financial statement fraud.

H3: Personal financial needs have a positive effect on financial statement fraud.

Financial Target and Financial Statement Fraud

According to SAS No. 99 (AICPA, 2002), financial targets describe situations where managers are under significant pressure to meet financial goals set by the board of directors, including the desire to earn incentives from sales and profit. Sari & Lestari (2020) explain that financial targets can create pressure for management because they are required to perform their best in managing the company to meet the planned targets. When managers fail to achieve the set financial targets, this pressure may drive them to commit fraud in the financial reports. Previous studies by Summers & Sweeney (1998) and Sari & Lestari (2020) revealed that financial targets have a positive and significant effect on the likelihood of financial statement fraud.

H4: Financial targets are suspected to have a positive effect on financial statement fraud.

Nature of Industry and Financial Statement Fraud

In SAS No. 99 (AICPA, 2002), industry characteristics are used as a reference to assess a company's ideal conditions, particularly those related to risks within the industry that require estimates and subjective judgments. Among other factors, industry characteristics can be observed through a company's receivables. Skousen *et al.* (2009) explain that a good company will reduce and suppress the amount of receivables to increase its cash inflows. Summers & Sweeney (1998) state that receivables and inventory accounts require subjective assessments to estimate the potential for uncollectible receivables and obsolete inventory. These conditions create opportunities for managers to focus on these accounts when manipulating their financial statements. Studies conducted by Umar *et al.* (2020), Kristianti & Meiden (2021), Khamainy *et al.* (2022), and Sihombing & Rahardjo (2014) also prove that the industry characteristics variable has a positive and significant influence on financial statement fraud.

H5: The nature of the industry has a positive effect on financial statement fraud.

Effective Monitoring and Financial Statement Fraud

Fraud occurs as a consequence of weak supervision, which opens up opportunities for management to engage in improper behavior by manipulating financial statements. Effective supervision mechanisms are one way to minimize fraud (Tiffani & Marfuah, 2015). POJK No. 33/POJK/04/2014, concerning the board of directors and board of commissioners of issuers or public companies,

explains that a company's management is supervised by an independent board of commissioners. An independent board of commissioners is believed to enhance the effectiveness of company oversight in preventing financial statement fraud. Previous studies by Khamainy *et al.* (2022) and Tiffani & Marfuah (2015) also showed that effective supervision negatively affects financial statement fraud.

H6: Effective monitoring has a negative effect on financial statement fraud.

History Of Sales and Financial Statement Fraud

Personal integrity reflects the decision-making process; therefore, when management intentionally manipulates vulnerable accounts, such as inflating sales figures to make the company appear better, it can indicate low personal integrity. Sales have a strategic influence on a company because sales are supported by assets, and if sales increase, there should be a corresponding increase in assets (Brigham & Houston, 2018). By knowing the previous year's sales information, a company can optimize the use of available resources and determine its sales growth ratio, which, if positive, indicates that the company can maintain its economic position and operational continuity, while also reflecting its ability to market its products (Khamainy *et al.*, 2022). Therefore, management may be motivated to report increased sales in the following year's financial statements if the previous year's sales results were unsatisfactory, using various methods, including financial statement fraud. Previous studies by Khamainy *et al.* (2022) and Febriyani & Gunawan (2022) have shown that sales history has a positive effect on financial statement fraud.

H7: A history of sales has a positive effect on financial statement fraud.

Earnings Growth and Financial Statement Fraud

When managers decide to manipulate financial reports deliberately by inflating profit accounts to improve company performance, their personal integrity is considered low. Mahaputra (2012) states that net profit is often used as a measure of performance or as a basis for other calculations such as return on investment (ROI) or earnings per share (EPS). Profit growth reflects changes in profit, whether an increase or decrease, based on a company's financial performance. If a company's profit declines, the management may be tempted to manipulate profits by inflating the actual profits earned to improve company performance. Mahaputra (2012) explained that the components of financial statements can affect a company's profit growth. Andini *et al.* (2023) and Yusuf (2023) proved that profit growth affects financial statement fraud.

H8: Earnings growth positively affects financial statement fraud.

Change Of Directors and Financial Statement Fraud

Capability refers to a person's ability to commit fraud in the corporate environment (Sihombing & Rahardjo, 2014). According to the 2022 ACFE fraud survey, company executives are perpetrators of fraud that causes the greatest losses. Therefore, individuals in highly influential positions within a company are key factors that determine the likelihood of financial statement fraud. Changes in management create a stress period that opens opportunities for

management to commit fraud, because new executives are not yet fully familiar with the company. However, changes in management can also indicate certain political interests aimed at replacing the previous management, one of which may be to remove executives aware of fraudulent practices within the company. Previous research by Sari & Lestari (2020) and Abbas & Laksito (2022) have proven that the variable of management change has a positive and significant effect on financial statement fraud.

H9: Changes in directors have a positive effect on financial statement fraud.

Theoretical Framework

The above description can be presented within a theoretical framework, as shown in Figure 2.

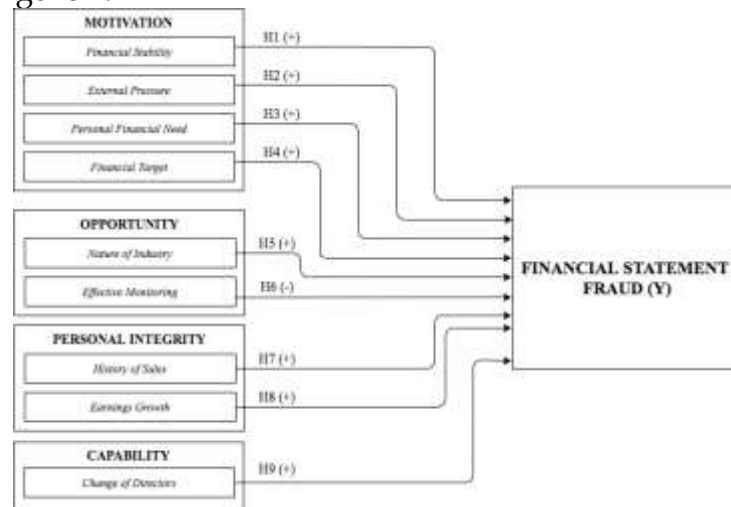


Figure 2. Theoretical framework

METHODOLOGY

Research population and sample

The population used in this study consisted of non-financial state-owned enterprises listed on the Indonesia Stock Exchange (BEI). The samples were collected using purposive sampling. Based on the sample criteria, a research sample of 18 companies per year was obtained and used for the period 2018 to 2022. Therefore, the total sample size used in this study was 90. The selected sample came from several sectors, namely, basic materials, infrastructure, energy, and healthcare. The details of the research sample are presented in Table 1 below.

Table 1. Sample determination criteria

No	Kriteria	Jumlah
1	Non-financial State-Owned Enterprises (SOEs) listed on the Indonesia Stock Exchange (IDX) that have consistently published audited annual reports during the period from 2018 to 2022.	23

2	Non-financial State-Owned Enterprises (SOEs) that publish financial statements using a foreign currency.	(4)
3	Non-financial State-Owned Enterprises (SOEs) that do not provide complete data related to the research variables.	(0)
4	Non-financial State-Owned Enterprises (SOEs) that have no indication of committing fraud at least once during the research period.	(1)
<i>The number of samples that meet the research criteria</i>		18
<i>Total Samples (18 x 5)</i>		90

Source: Data processing results, 2024

Data Analysis Method

This study used logistic regression data analysis methods because the dependent variable is categorical, with number 1 assigned to companies categorized as fraud, which engage in financial statement manipulation, and number 0 assigned to companies categorized as non-fraud, which do not engage in such practices.

RESULTS AND DISCUSSION

Data description

The Data description provides a description of the data based on the average (mean), standard deviation, maximum, and minimum values of each variable (Table 2).

Table 2. Data description results

	N	Min	Max	Med.	Mean	Std. Deviation
FRAUD	90	0	1	0	0,4889	0,50268
ACHANGE	90	-0,88	0,38	0,0411	0,0406	0,16771
LEV	90	0,29	1,40	0,6100	0,6268	0,20022
OSHIP	90	0,00	0,08	0,0000	0,0004	0,00124
ROA	90	-0,50	0,28	0,0185	0,0201	0,08839
REC	90	-1,14	0,94	-0,0046	-0,0079	0,23607
BDOUT	90	0,20	0,67	0,4000	0,4224	0,10714
SG	90	-0,88	1,42	0,0616	0,0660	0,39072
EG	90	-10,23	9,30	-0,0211	0,0120	1,94220
DCHANGE	90	0	1	1	0,7444	0,43862

Source: Data processing results, 2024

Logistic Regression Analysis

The first step was to assess the feasibility of the regression model using the Hosmer-Lemeshow goodness of fit test. Based on the results of the Hosmer and Lemeshow tests, a chi-square value of 8.276 was obtained with a significance level of 0.407. This indicates that the model can predict the value of its observations or that the model is acceptable because it fits the observational data.

The second step was to assess the overall regression model that was hypothesized to fit the data used. The statistics used based on likelihood showed a decrease in the value of -2 log-likelihood block number = 0 by 124.722 to 101.637 in the -2log likelihood block number = 1 model. This shows that the regression model, which includes all independent variables, is better; in other words, the hypothesized model fits the data.

The next step was to test the coefficient of determination (R^2) to measure the ability of the independent variable to explain the dependent variable. The R^2 value is 0.302, which means that only 30.2% of the variation in the dependent variable, financial statement fraud, can be explained by the independent variables used in this study. This shows that the independent variable is weak in explaining the dependent variable.

The next step is the classification matrix test, which is used to assess the model's ability to predict the probability of an event using logistic regression. This model can predict 65.9% of cases without indications of financial statement fraud and 71.7% of cases without indications of fraudulent financial reporting. The table shows that of the 44 companies, 29 are predicted to be involved in fraudulent financial statements. However, 33 of the 46 companies engaged in such practices are predicted to be uninvolved in the fraudulent financial reporting.

The next step was to examine the effect of each independent variable on the dependent variable (Table 3).

Table 3. Hypothesis test results

	B	Sig.
Step 1 ^a Financial stability	-0,206	0,919
External pressure	3,002	0,058
Personal financial need	391,148	0,187
Financial target	2,774	0,541
Nature of industry	5,092	0,027
Effective monitoring	3,849	0,148
History of sales	2,121	0,047
Earnings growth	-0,008	0,953
Change of directors	0,953	0,095
Constant	-4,060	0,013

Source: Data processing results, 2024

The Effect of Financial Stability on Financial Statement Fraud

The financial stability variable has a coefficient of -0.206 and a significance value of 0.919. These findings indicate that financial stability significantly and

positively affects the likelihood of financial statement fraud. Therefore, **H1 is rejected.**

When a company experiences low total asset growth, disrupting its financial stability, management is unlikely to engage in financial statement fraud. Changes in asset values, whether increases or decreases, can occur because of the application of fair value methods in asset valuation or revaluation, leading to fluctuations in asset values. Managers do not immediately manipulate financial statements to enhance the company's prospects when the company's asset growth rate is below the industry average, as this could worsen the company's financial condition in the future (Skousen *et al.*, 2009). This research finding is supported by Khamainy *et al.* (2022), Sari & Lestari (2020), and Rusmana & Tanjung (2020), who explain that financial stability does not significantly affect financial statement fraud.

The Effect of External Pressure on Financial Statement Fraud

The significance test results for the regression coefficient show that the external pressure variable obtained a coefficient value of 3.002, and a significance value of 0.058. These results indicate that external pressure does not significantly affect the likelihood of financial statement fraud. Therefore, **H2 is rejected.**

External pressure does not influence the likelihood of management engaging in fraudulent practices. This may occur because the company feels entitled to loans as it has the ability to pay off its debts. The ability to repay debt can be assessed using credit ratings provided by rating agencies. Companies with high leverage ratios, meaning they have large debts, will be more cautious in committing fraud because stakeholders will closely monitor the company's performance, partly by setting the covenants that the company must meet, thereby minimizing fraud risk. This research finding is supported by Khamainy *et al.* (2022), Kristianti & Meiden (2021), and Umar *et al.* (2020), who explain that external pressure does not positively affect the likelihood of financial statement fraud.

The Effect of Personal Financial Need on Financial Statement Fraud

The personal financial needs variable obtained a coefficient value of 391.148, and a significance value of 0.187. Therefore, the personal financial needs do not positively affect the likelihood of financial-statement fraud. Thus, **H3 is rejected.**

The lack of influence of insider share ownership on financial statement fraud could be due to the absence of managerial ownership programs for employees or management in the company's shares (ESOP/MSOP). Therefore, insiders are not permitted to own company share. Although no regulations govern the limit of insider share ownership, POJK Regulation Number 11/POJK.04/2017 requires each member of the Board of Commissioners and Directors to report their share ownership and any changes in ownership to the company to enhance transparency and accountability. This research finding is supported by studies conducted by Umar *et al.* (2020), Kristianti & Meiden (2021), and Febriyani & Gunawan (2022), which prove that personal financial needs do not positively affect the likelihood of financial statement fraud.

The Effect of Financial Targets on Financial Statement Fraud

The significance test results for the regression coefficient show that the financial target variable produces a coefficient value of 2.774 and a significance value of 0.541. This indicates that financial targets do not significantly affect the likelihood of financial statement fraud. Therefore, **H4 is rejected**.

The ROA targeted by the company does not influence the likelihood of managers committing financial statement fraud. This may occur because managers consider the financial targets represented by ROA realistic and achievable. Company policies aimed at improving operational quality and performance, such as recruiting competent employees, modernizing information systems, and making sound decisions by the board of directors in resolving issues, can help the company achieve higher profitability, thereby reducing the pressure on managers that could lead to financial statement fraud. This finding is supported by studies conducted by Sari & Lestari (2020), Rusmana & Tanjung (2020), and Novitasari & Chariri (2019), who prove that financial targets do not positively affect the likelihood of financial statement fraud.

The Effect of Nature of Industry on Financial Statement Fraud

The nature of the industry variable obtained a coefficient value of 5.092 and a significance value of 0.027. This indicates that the nature of the industry has a significant positive effect on the likelihood of financial statement fraud. Therefore, **H5 is accepted as the mediation hypothesis**.

An increase in receivables tends to increase a company's potential to commit fraud in financial reporting. Hence, the higher the increase in receivables from the previous year, the more likely the company is to manipulate the estimated amount of uncollectible receivables. This situation has a high potential for fraud because calculating uncollectible receivables involves subjective management judgment and assessment, with management naturally wanting the company's financial performance to appear favorable. If a company wants to attract investors, management will focus on reducing total receivables by manipulating uncollectible receivables to improve the company's financial performance. This study aligns with the findings of Khamainy *et al.* (2022), Himawan & Wijanarti (2020), and Kristianti & Meiden (2021), who explained that the nature of the industry positively affects the likelihood of financial statement fraud.

The Effect of Effective Monitoring on Financial Statement Fraud

The results of the significance test for the regression coefficient showed that the effective supervision variable had a coefficient value of 3.849 and significance of 0.148. This indicates that effective supervision does not negatively affect the likelihood of financial statement fraud. Therefore, **H6 is rejected in this study**.

The Financial Services Authority (OJK) Regulation No. 33/POJK.04/2014 concerning directors and boards of commissioners of issuers or public companies shows that the appointment of independent commissioners by a company does

not always reflect an effort to enforce good corporate governance (GCG) to prevent financial statement fraud; rather, it is often only to fulfill regulatory requirements, making the supervisory function less effective. In addition, significant interventions by independent commissioners can disrupt the objectivity of oversight. Therefore, it is not the presence of an Independent Board of Commissioners that determines the potential for financial statement fraud but the quality and performance in carrying out their supervisory duties that determine the likelihood of fraud (Haqq & Budiwitjaksono, 2019). This research is supported by Khamainy *et al.* (2022), and Abbas & Laksito (2022), who explain that effective supervision does not influence the likelihood of financial statement fraud.

The Effect of History of Sales on Financial Statement Fraud

The sales history variable produced a coefficient value of 2.121 and significance of 0.047. Therefore, sales history has a significant positive effect on the likelihood of financial statement fraud. Consequently, **H7 is accepted**.

Management facing unsatisfactory sales results in the previous year's financial statements will strive to increase the company's net sales the following year. The goal is to attract investors and convincing creditors to continue providing funding to the company, including engaging in fraudulent activities, such as manipulating financial statements to show that the company is capable of growth, particularly in increasing sales. This research finding is also supported by Khamainy *et al.* (2022), and Febriyani & Gunawan (2022), who explain that sales history has a positive effect on the likelihood of financial statement fraud.

The Effect of Earnings Growth on Financial Statement Fraud

The Earnings growth variable obtained a coefficient value of -0.008 and a significance value of 0.953. This indicates that profit growth does not positively affect the likelihood of committing financial statement fraud. Therefore, **H8 is rejected in this study**.

The company's profit growth rate does not indicate the likelihood of management engaging in financial statement fraud. This is because high profit growth is generally accompanied by a lower risk of financial statement fraud (Khamainy *et al.*, 2022). However, the company's net profit is the final result of the comprehensive income statement calculation; therefore, management may not manipulate this account but rather earlier accounts, such as the company's sales growth or other accounts. This research finding is supported by Sari & Putra (2023), Khamainy *et al.* (2022), and Febriyani & Gunawan (2022), who explain that profit growth does not significantly affect the likelihood of financial statement fraud.

The Effect of Change of Directors on Financial Statement Fraud

Capability, proxied by the turnover ratio of the board of directors (DCHANGE), has a coefficient value of 0.953, and a significance value of 0.095. This result indicates that board of directors turnover does not significantly impact financial statement fraud. Therefore, **H9 is rejected in this study**.

Even if a company undergoes board of director turnover, it does not necessarily indicate potential fraud in the financial statements. A company may replace its directors to improve performance by appointing new directors who are considered more competent and capable of working optimally. Additionally, the turnover of the board of directors is not necessarily an effort to conceal ongoing fraud within the company but could be due to reasons such as the expiration of the directors' terms or their resignation, necessitating the appointment of new directors. These findings are consistent with those of Sari & Lestari (2020), Umar *et al.* (2020), and Sari & Putra (2023), who stated that board of directors turnover does not significantly affect financial statement fraud.

CONCLUSIONS AND RECOMMENDATIONS

Based on the series of processes conducted, including data collection, processing, testing, and interpretation, the research results indicate that two factors from the new fraud diamond model influence financial statement fraud: opportunity, proxied by industry characteristics measured using the accounts receivable turnover ratio, and personal integrity, proxied by sales history, and measured using the sales growth ratio.

This study has some limitations. This study has several limitations, including a coefficient of determination value of 0.302 or 30.2%, indicating that 68.9% of other variables, aside from those included in the study, may influence financial statement fraud. Therefore, future research should use and/or add variables to the new fraud diamond model to enhance and expand its scope of the research variables. Future studies should broaden the scope of this study by increasing its sample size.

FURTHER STUDY

Future research is encouraged to expand the sample beyond non-financial SOEs, integrate additional behavioral or digital forensic variables into the Fraud Diamond model, and utilize advanced analytical approaches such as machine learning to enhance fraud detection accuracy; extending the observation period or comparing post-pandemic governance dynamics may also offer deeper insights into evolving patterns of financial statement fraud.

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