PROCEEDING ICONIES
FACULTY OF ECONOMICS
UIN MAULANA MALIK IBRAHIM MALANG
P-ISSN: 2476-9851 / E-ISSN: 2541-3333

DETERMINANTS OF FINANCIAL REPORTING FRAUD IN INDONESIAN FINANCIAL SECTOR: A FRAUD HEXAGON PERSPECTIVE

Aulia Salwa Fatiha, Nujmatul Laily
Faculty of Economics and Business, Universitas Negeri Malang
Jl. Semarang No.5, Malang City, East Java, 65145, Indonesia
aulia.salwa.2104226@students.um.c.id

ABSTRACT
This study was conducted to identify and analyze several factors that contribute to financial reporting fraud by applying the Fraud Hexagon Theory perspective. The influence of the independent variables on the dependent variable is explained through an explanatory quantitative approach. The research sample includes companies listed in the financial sector on the IDX from 2019 to 2023 and was determined through a purposive sampling technique. The research data processing was analyzed using the logistic regression method. The findings indicate that the financial target variable, proxied as a pressure factor, has a positive influence on financial reporting fraud. Then the audit fees variable, proxied as a collusion factor, shows a negative influence on financial reporting fraud. While the CEO education variable proxied as a capability factor, the percentage of independent audit committee variable proxied as an opportunity factor, the external auditor switching variable proxied as a rationalization factor, and the family firm variable proxied as an ego factor, have no impact on financial reporting fraud. This study offers theoretical implications for the development of literature on financial reporting fraud based on the Fraud Hexagon Theory, and provides practical implications for all stakeholders to prevent factors that can trigger financial reporting fraud.

Keywords: Fraud Hexagon Theory, Financial Reporting Fraud, Financial Sector Companies

INTRODUCTION

Fraud is now emerging as a significant threat that endangers the global economy (Abdullahi & Mansor, 2018). Financial reporting fraud is an act of fraud that causes both social and economic concerns for a country (Nasir et al., 2018). Survey results by ACFE (2024) prove that financial reporting fraud has the largest average loss compared to asset misappropriation and corruption schemes. Financial reporting fraud can also compromise the condition of the company (Sanjaya et al., 2021). This is because financial statements are periodic reports that present information related to the company's financial condition, including operations, cash flow, and overall company performance, which aims to assist stakeholders in making decisions (Gbadebo et al., 2023). This will also be detrimental to both stakeholders and the company in terms of financial, reputation, and the company's ability to maintain business, ultimately leading to bankruptcy (Handoko & Tandean, 2021).

Financial reporting fraud practices have occurred in various sectors of Indonesian companies. Indonesia, which is included in the Asia Pacific region, occupies the third position with the highest number of cases in the world (Sahla & Ardianto, 2023). According to the the 2019 Indonesian Fraud Survey by ACFE, the parties most affected by fraud are the financial and banking sectors, with a percentage of 41.4% (ACFE, 2020). In the Indonesian financial sector, a financial reporting fraud case involving PT. Asuransi Jiwasraya is one of the most widely exposed cases in 2019 (Makki, 2020). Another case of financial reporting fraud was discovered in Kresna Life Insurance, which manipulated its financial statements in 2020 (Wicaksono, 2023). Other irregular practices were also found at PT. Asabri, which falsified the value of the company's investment portfolio (Christian et al., 2023). Financial reporting fraud also often occurs in banking companies such as Century Bank, Citybank, and Maybank (Handoko & Tandean, 2021).

Based on the results of adapting the Fraud Triangle Theory developed by Cressey in SAS No. 99, it is explained that the factors of pressure, opportunity, and rationalization

can trigger fraudulent behavior (Skousen et al., 2009). The increasing number of cases of financial reporting fraud has motivated researchers to develop theories that identify other factors contributing to fraud (Bader et al., 2024). The Fraud Hexagon Theory proposed by Vousinas in 2019 is one of the latest theoretical developments in fraud studies. This theory suggests that there are six elements that influence fraud, also known as the S.C.C.O.R.E model, where these elements consist of pressure or stimulus factors, capability factors, collusion factors, opportunity factors, rationalization factors, and ego or arrogance factors (Vousinas, 2019).

Research on detecting financial reporting fraud from the perspective of the Fraud Hexagon Theory has been conducted by several studies with mixed results. Kusumosari & Solikhah (2021) and Sihombing & Eirene Panggulu (2022) reveal that financial targets, proxied as a pressure factors, have a significant impact on financial reporting fraud. In contrast, a study conducted by Handoko & Tandean (2021) revealed no impact from the existence of financial targets on financial reporting fraud. In addition, the selection of variables used to identify financial reporting fraud remains limited to certain variables that do not show a significant effect. For example, it can be seen in the variable used to proxy the opportunity factor, namely the ineffective monitoring variable, which can be found in the study by Achmad et al. (2022); Hakim et al. (2024); Handoko & Tandean (2021); and Larum et al. (2021), where the findings in this study indicate that ineffective monitoring does not have a significant effect on financial reporting fraud. To fill this gap, this study uses the variable percentage of independent audit committees as a proxy for the opportunity factor (Bader et al., 2024).

Research suggestions by Bader et al. (2024) recommend using other variables to measure the arrogance motive, as the number of CEO photos in financial statements may not be sufficient to express the arrogance motive. So, this study utilizes family firm variables to proxy for ego factors, where family businesses be prone to financial reporting fraud because the kinship between the CEO and the board of commissioners can weaken the supervisory function, given that management has considerable freedom in decision-making (Situngkir & Triyanto, 2020). Other studies have limitations on research objects, such as focusing on state-owned companies (Achmad et al., 2022; Aviantara, 2021; Khamainy et al., 2022; Larum et al., 2021) or being limited to banking companies (Avortri & Agbanyo, 2021; Handoko & Tandean, 2021), which results in a minimum research sample. So, by considering research suggestions from Larum et al. (2021) and Situngkir & Triyanto (2020) to choose a different research object, another novelty also lies in the selection of the research object, namely financial sector companies whose data has been recorded and listed on the IDX starting in the period 2019 to 2023.

The purpose of this study is to identify and analyze factors that can affect financial reporting fraud through the Fraud Hexagon Theory perspective, where the financial target variable is proxied as a pressure factor, the CEO education variable is proxied as a capability factor, the audit fee variable is proxied as a collusion factor, the percentage of independent audit committee variable is proxied as an opportunity factor, the external auditor change variable is proxied as a rationalization factor, and the family firms variable is proxied as an ego factor. Along with the discovery of the factors that cause financial reporting fraud, the results of this study are expected to contribute theoretically to further research, generate new insights related to the variables studied, and provide a valuable source of knowledge for readers. And can contribute practically to the development of internal policies or company regulations to minimize the occurrence of financial reporting fraud.

LITERATURE REVIEW

Fraud Hexagon Theory

The theory of fraud was initially proposed in 1953 by Donald R. Cressey through the concept of the Fraud Triangle Theory. This theory states that the backgrounds of

individuals committing fraud are driven by three factors, namely pressure, opportunity, and rationalization (Cressey in Achmad et al., 2022). In 2004, David T. Wolfe and Dana R. Hermanson developed the theoretical framework into the Fraud Diamond Theory by introducing a fourth factor, namely capability. Then this theory was further developed, known as the Fraud Pentagon Theory, by adding a factor that is considered to have a fifth impact, namely ego or arrogance (Horwarth, 2012). Until more and more fraud events occur in the world, in 2019 Georgios L. Vousinas further developed this theoretical framework into the Fraud Hexagon Theory by adding one more factor, namely collusion. Based on this development, this theory suggests that the factors underlying the occurrence of fraud include pressure or stimulus, capability, opportunity, rationalization, ego or arrogance, and collusion (Vousinas, 2019).

Pressure refers to one of the driving factors that can trigger fraud behavior. Pressure can come from both financial and non-financial sources, including pressure that comes from high financial expectations, pressure to achieve specific targets, aspirations for professionalism, and so on. Capability refers to the nature and ability of a person to commit fraud, which is influenced by factors such as pressure, opportunity, and rationalization. Collusion is a form of cooperation between or agreement between two or more individuals that is manipulative, where one party acts to the detriment of the other to gain an advantage. Opportunity refers to the chance and ability of a person to engage in fraudulent activities without being detected by other parties. Rationalization refers to the attitude of justifying the fraud committed. The Ego fac relates to the conflict between personal desires and the limits set by one's conscience. Ego then influences cheating when individuals have a sense of superiority and believe that they can manipulate or influence others (Vousinas, 2019).

Financial Reporting Fraud

As described in SAS No. 99, financial reporting fraud is a deliberate act that causes material errors in financial statements, thereby impacting decision-making for its users (Sasongko & Wijayantika, 2019). Misstatements of financial statements are prepared intentionally to harm related parties by eliminating values in the disclosure so that the financial statements are not presented materially (Handoko & Tandean, 2021). Inaccurate financial statements can lead to reduced trust in financial information and result in inappropriate decision-making by users of financial statements (Achmad et al., 2022). Financial reporting fraud can be caused by delays in information disclosure, failure to disclose information, and fabrication of accounting details (Nasir et al., 2018). Actions that are not in accordance with these rules will also harm many parties, including the company concerned, investors, and company employees (Toit, 2024). Financial reporting fraud leads to financial losses for investors, errors in decision-making, and reduced trust in the capital market (Azizah, 2024). At the same time, the losses that affect employees include the low wages provided by the company following the period of financial reporting fraud (Choi & Gipper, 2024)

HYPOTHESIS

The Effect of Financial Target on Financial Reporting Fraud

Financial targets are goals that have been determined by the company and are expected to be achieved within a specified period (Sihombing & Eirene Panggulu, 2022). Companies consistently strive to achieve these goals because their financial performance is often the primary focus for users of financial statements such as investors, creditors, and other stakeholders in evaluating the company's overall success (Bader et al., 2024). Financial targets, proxied as a pressure factor, can then affect fraud when company management under excessive pressure uses unethical means such as manipulating financial reports to achieve the set targets (Vousinas, 2019). In this study, management performance in achieving the company's financial targets is assessed assessed through the Return on Assets (ROA) metric (Skousen et al., 2009). Generally, management will attempt to report ROA values that tend to be high, as high ROA values indicate good

company performance in generating profits (Noble, 2019). The results of previous studies by Hakim et al. (2024); Kusumosari & Solikhah (2021); Sihombing & Eirene Panggulu (2022); and Wicaksono & Suryandari (2021) indicate that there is a positive influence of financial targets on financial reporting fraud. So that the first hypothesis proposed is: H1: Financial Targets have a positive effect on Financial Reporting Fraud.

The Effect of CEO Education on Financial Reporting Fraud

CEO education refers to the CEO's knowledge and ability to comprehend business processes and company financial reports (Sihombing & Eirene Panggulu, 2022). The higher education background possessed by a CEO will make them more competent to make the right decisions when faced with problems (Utami et al., 2024), and able to process complex information (Cesari et al., 2023). However, this condition can sometimes pose a threat to the company, as a CEO's ability to manage company operations and finances can lead to fraud when they prioritize their personal interests (Kusumosari & Solikhah, 2021). In relation to the Fraud Hexagon Theory, CEO education affects fraud when CEOs with high skills or knowledge can identify gaps to take financial reporting fraud actions (Vousinas, 2019). Based on the results of the ACFE survey, 67% of fraud perpetrators hold a bachelor's degree or higher, where the perpetrators with the highest education (postgraduate degree) cause losses almost three times greater than those with lower education levels (ACFE, 2024). According to Soselisa & Mukhlasin (in Kusumosari & Solikhah, 2021), one of the higher levels of education, such as a master's degree, can encourage a person to behave in a way that is solely self-focused and causes other parties to experience losses. The results of previous studies by Preicilia et al. (2022) and Sihombing & Eirene Panggulu (2022) shows that CEO education has a positive impact on financial reporting fraud. So that the second hypothesis proposed is: H2: CEO Education has a positive effect on Financial Reporting Fraud.

The Effect of Audit Fees on Financial Reporting Fraud

Audit fees are fees charged to companies to be paid for services to examine and evaluate financial statements by audit companies or public accounting firms (Nejad et al., 2024). Audit fees can be said to be collusion that affects fraud when two or more individuals form an agreement to commit fraud or misconduct (Vousinas, 2019). In relation to collusion, audit fees can strengthen the relationship between clients and auditors, where public accounting firms will be more motivated to follow client requests when economic ties grow (Kaituko et al., 2023). This conflict of interest will also lead to a reciprocal relationship between auditors and company leaders in hiding financial reporting fraud (Sihombing & Eirene Panggulu, 2022). In some cases, it has been revealed that auditors conspire with their clients to hide fraud, such as in the case of fraud between Enron and Arthur Andersen, who conveyed false information with the protection of high audit fees (Aviantara, 2021). Results of a study conducted by Aviantara (2021) also revealed that audit fees affect the occurrence of financial reporting fraud. Then, a study conducted by Sihombing & Eirene Panggulu (2022) shows that audit fees have a positive impact on the occurrence of financial reporting fraud. So that the third hypothesis proposed is: H3: Audit Fees have a positive effect on Financial Reporting Fraud.

The Effect of the Percentage of Independent Audit Committee on Financial Reporting Fraud

An independent audit committee is a member of the audit committee that is separate from interested parties in the company (Bader et al., 2024). An independent audit committee can increase the integrity of the company's financial statements (Situngkir & Triyanto, 2020). The independent audit committee's primary task is to ensure that financial reports are prepared in accordance with applicable accounting standards (Mohammad et al., 2018). According to Rengganis et al. (2019), ineffective supervision creates opportunities for fraud. Associated with the Fraud Hexagon Theory, independent audit committees affect fraud when individuals perceive that they have the opportunity to commit fraud without the risk of being detected (Vousinas, 2019).

The high number of independent audit committees will increase the effectiveness of supervision carried out, so that management will find it more difficult to commit fraud (Ratmono et al., 2018). The findings of Skousen et al. (2009) also indicate that the likelihood of financial reporting fraud decreases when the percentage of independent audit committees increases. Previous studies by Bader et al. (2024); Pramana et al. (2019); and Rengganis et al. (2019) show similar results, indicating that the number of independent audit committees is also a factor that affects the occurrence of financial reporting fraud. So that the fourth hypothesis proposed is: H4: The percentage of Independent Audit Committee has a negative effect on Financial Reporting Fraud.

The Effect of Auditor Switching on Financial Reporting Fraud

Auditors have a crucial responsibility in supervising the company's financial statements, as the auditor's opinion significantly influences the basis for assessing the users of financial statements (Hakim et al., 2024). The change of external auditors can affect the rationalization of fraud, because the perpetrators consider the actions taken to be reasonable and correct, thus allowing them to continue these actions without any guilt (Vousinas, 2019). This is because auditors who are always replaced by the company will be perceived as a mechanism to erase the history of fraud that has been identified by the auditor at a particular time (Sasongko & Wijayantika, 2019). Previous studies conducted by Mayasari (2022) and Wilantari & Ariyanto (2023) also revealed that the change of external auditors has a positive impact on financial reporting fraud. So that the fifth hypothesis that can be proposed is: H5: Auditor Switching has a positive effect on Financial Reporting Fraud.

The Effect of Family Firms on Financial Reporting Fraud

A family firm is an entity where the structure of the board of directors and board of commissioners consists of individuals with family relationships (Situngkir & Triyanto, 2020). Family firms can lead to arrogance, which affects fraud when individuals with high egos or self-confidence commit fraud without considering the risks involved, as they feel they are superior to perform these actions (Vousinas, 2019). Kinship relationships in family companies tend to be associated with positive company performance, which can result in financial statements with lower quality (Alhebri & Al-Duais, 2020). In addition, family members who are included on company boards may also consider themselves as privileged individuals who have the right to commit fraud (Gottschalk & Asting, 2019). This statement is supported by the research results of Situngkir & Triyanto (2020) which indicate that family companies have a positive influence on financial reporting fraud. So that the sixth hypothesis that can be proposed is: H6: Family Firms have a positive effect on Financial Reporting Fraud

METHODS

The quantitative method was chosen in this study, with an explanatory approach. This research is based on data from secondary sources, which are collected through annual and financial reports of companies in the financial sector listed on the IDX for the 2019 to 2023 financial years. The research sample was determined using a purposive sampling technique, in accordance with previously established criteria. The sample criteria used are Companies listed as part of the Financial Sector on the IDX during 2019-2023, (2) Companies listed as part of the Financial Sector that did not present complete annual and financial reports during 2019-2023 due to special monitoring by the IDX, and (3) Companies listed as part of the Financial Sector that do not provide complete data related to research variables during 2019-2023. The research sample consisted of 66 companies, which were observed over a 5 year period, resulting in a total of 330 samples.

Table 1. Operational Definition and Variable Measurement

No.	Variable	Operational Definition	Variable Measurement
1.	Financial Reporting Fraud (Y)	Fraud is a deliberate act that results in errors with a material impact and affect how a decision is made by users (Sasongko & Wijayantika, 2019).	F-Score = Accrual Quality + Financial Performance (Bader et al., 2024; Dechow et al., 2011; Khamainy et al., 2022).
2.	Financial Target (X1)	Financial targets refer to goals that have been determined and are expected to be achieved at a predetermined time (Sihombing & Eirene Panggulu, 2022).	ROA = Net Income/Total Assets (Hakim et al., 2024; Skousen et al., 2009).
3.	CEO Education (X2)	CEO education relates to their knowledge and expertise in understanding the company's operational processes and financial statements (Sihombing & Eirene Panggulu, 2022).	Dummy variable, 1 = master's degree or higher, 0 = below a master's degree (Kusumosari & Solikhah, 2021).
4.	Audit Fees (X3)	Audit fees are expenses incurred by the company for the examination and assessment of its financial statements by public accounting firms (Nejad et al., 2024).	Natural logarithm (Ln) value of the reported audit fee (Aviantara, 2021; Sihombing & Eirene Panggulu, 2022).
5.	Percentage of Independent Audit Committee (X4)	The independence of the audit committee refers to members who are not affiliated with or have no interest in the company, so that if fraud arises, they can identify and address it without bias (Bader et al., 2024).	The ratio of the proportion of independent members to the total number of audit committee members (Bader et al., 2024).
6.	Auditor Switching (X5)	External auditor switching refers to the action of changing the auditor previously used (Achmad et al., 2022).	Dummy variable, 1 = companies that change external auditor, 0 = company did not change the external auditor (Achmad et al., 2022; Bader et al., 2024; Hakim et al., 2024).
7.	Family Firms (X6)	Family firms are companies where individuals occupying important positions, such as those on the board of directors and the board of commissioners, are often related by family ties (Situngkir & Triyanto, 2020).	Dummy variables, 1 = the CEO and commissioners who have the power have a family relationship, 0 = there is no family relationship between the CEO and commissioners who have power (Situngkir & Triyanto, 2020).

Source: Processed Data (2025)

The hypothesis in this study was tested in several stages, beginning with an assessment of the feasibility of the regression model, using the overall fit test and the goodness of fit test. The technique chosen to analyze the data in this study is logistic regression analysis. The choice of this technique is based on the measurement of the dependent variable using binary categorical variables such as dummy variables (Paramita et al., 2021). where the number code "0" indicates no financial reporting fraud and the number code "1" indicates financial reporting fraud. Furthermore, the hypothesis will go through partial testing (t-test) with a significance threshold of 0.05 or 5%. This criterion is used to assess how the independent variable is able to influence the dependent variable. In the logistic regression model, the significance value in the Wald Statistic will be used as an assessment (Paramita et al., 2021). If the sig. value > 0.05, it indicates that the independent variable does not contribute to the dependent variable.Meanwhile, if the sig. value < 0.05, it indicates that the independent variable states a contribution to the dependent variable.

RESULTS

Overall Model Fit Test

The overall model fit test is intended to assess the extent to which the regression model fits the data. The assessment is carried out by comparing whether the initial -2LogL value has decreased compared to the final -2LogL value. The Log Likelihood value, which shows a decreasing difference from the initial stage, indicates that the proposed model fits the data. Referring to the test results of the overall model fit test above, it is evident that the Log Likelihood value has decreased by 16,596, where the initial -2LogL value is 436,886 > the final - 2LogL value of 420,290. This decrease indicates that the proposed regression model fits the data or describes a good regression model.

Table 2. Iteration History

Iteration Block Number	-2 Log Likelihood
0	436.886
1	420.290

Source: Processed Data (2025)

Goodness of Fit Test

The goodness of fit test is an effort to assess whether the regression model is suitable for use using Hosmer and Lemeshow's Fit Test value. If the significance value on the Hosmer and Lemeshow's Test > 0.05, it can be said that the regression model is able to predict the value of the observation. Referring to the results of the goodness of fit test above, it is known that the significance value of Hosmer and Lemeshow's Test shows 0.639 > 0.05. Therefore, it can be concluded that the proposed regression model is feasible for use, as it accurately predicts the data and does not show a significant difference between the regression model and the empirical data.

The results of testing the first hypothesis, namely the financial target (FT), provide regression coefficient results with a value of 0.041 and a sig. level of 0.023 < 0.05 so it can be concluded that H1 is accepted, suggesting a positive influence of the financial target variable on the likelihood of financial reporting fraud. In the second hypothesis, namely CEO education (CE), the coefficient is obtained with a value of 0.235 and a sig. level at 0.330 > 0.05, since the value is above the threshold, it can be concluded that H2 is rejected, where these results indicate that there is no effect of CEO education on the likelihood of financial reporting fraud. In the third hypothesis, namely audit fees (AUDF), the regression coefficient is obtained with a value of -0.294 and a sig. level of 0.001 < 0.05, so that it can be concluded that H3 is rejected, where audit fees contribute negatively to the likelihood of financial reporting fraud.

The next variable, the percentage of independent audit committee (%IND), shows a regression coefficient with a value of 0.554 and a sig. value above the threshold of 0.411

> 0.05, so it is concluded that H4 is rejected, where these results indicate that the number of independent audit committees does not contribute to the likelihood of financial reporting fraud. The same treatment applies to the auditor switching variable (AUDCHANGE), which shows a regression coefficient value of -0.116 and a sig. level above the threshold of 0.712 > 0.05, so it is concluded that H5 is rejected, where these results indicate that there is no significant contribution between external auditor changes and financial reporting fraud. Moreover, testing the hypothesis of the family firm variable (FAM) also indicates no significant effect on financial reporting fraud, with a regression coefficient is 0.474 and the sig. level is above the threshold of 0.416, so it is concluded that H6 is rejected.

Table 2. Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	6.073	8	.639

Source: Processed Data (2025)

Partial Hypothesis Test

This test aims to determine the effect of financial targets, CEO education, audit fees, percentage of independent audit committee, auditor switching, and family firms on financial reporting fraud. Testing is conducted using the Wald test on logistic regression with a significance level of 0.05. The test results are listed in the table 4.

The Effect of Financial Targets on Financial Reporting Fraud

The results of testing the first hypothesis conclude that there is a positive influence on financial reporting fraud from the financial target variable proxied as a pressure factor. In another sense, the greater the pressure to meet financial targets will increase the risk of financial reporting fraud. This study utilizes the ROA ratio to measure financial targets, because it reflects how efficiently assets are used to generate profits and assesses managerial performance (Skousen et al., 2009). As a result, setting the ROA target too high will put a pressure on managers to manipulate the company's financial statements. This finding is consistent with previous studies by Bader et al. (2024) and Utami et al. (2024), which reveal that the pressure to meet financial targets in the form of ROA has the potential to encourage managers to commit financial reporting fraud, in order to achieve results in accordance with the targets set by stakeholders, thus potentially obtaining additional financial incentives.

In relation to the Fraud Hexagon Theory, the results of this study illustrate that pressures such as demands to achieve financial targets, such as high ROA figures, can influence an individual to commit financial reporting fraud. This pressure occurs both financial and non-financial bases, as management believes it yields better financial performance results, enabling the company to meet its targets. If these targets are achieved, management will reap personal benefits, thereby increasing the risk of fraud (Vousinas, 2019). Thus, the financial targets set by stakeholders should remain within the limits of management's ability, so that management does not consider these targets as pressure (Sihombing & Eirene Panggulu, 2022). This finding contradicts research by Achmad et al. (2023) and Handoko & Tandean (2021), which indicate that financial targets as measured by ROA have no significant impact on financial reporting fraud.

The Effect of CEO Education on Financial Reporting Fraud

The results of testing the second hypothesis concluded that there was no significant effect on financial reporting fraud from the CEO education variable proxied as a capability factor. In the Fraud Hexagon Theory, capability refers to the ability or special expertise possessed by an individual to commit fraud, even though other factors such as pressure, opportunity, and rationalization may also be present. In other words, even though in a condition where other factors drive fraud, the fraud cannot be realized without involving individuals with the right skills in its implementation (Vousinas, 2019). So based on this

theory, this study expects to find that a high level of CEO education can increase their ability to misrepresent financial reporting. Research data collected from companies in the financial sector during the 2019-2023 period shows that 51.5% of CEOs in the research sample hold a master's degree or higher. This indicates that a CEO's higher education does not directly increase the likelihood of financial reporting fraud, but is offset by other factors. This finding is supported by a study by Aviantara (2021), which reveals that CEO education has no significant impact on financial reporting fraud because this action is a form of unethical behavior influenced by informal education, which is different in performance and technical terms from that taught through formal education.

In addition, the skills and education level of a CEO are not factors that can trigger fraud, but rather make the CEO more competent in dealing with problems, enabling them to make the right decision without resorting to engage in fraudulent practices (Wicaksono & Suryandari, 2021). CEOs with higher education can make informed strategic decisions and manage the company effectively, so that it has a positive impact on the company's financial performance (Nguyen & Nguyen, 2024). This statement is reinforced by a study by Urquhart & Zhang (2022), which reveals that companies led by CEOs with PhDs can achieve higher company performance. In addition, CEOs with higher education backgrounds support them in disclosing information clearly and transparently, thereby reducing the occurrence of information asymmetry and increasing stakeholder trust (Aryani et al., 2025). Research that contradicts the findings in this study was found in studies by Preicilia et al. (2022) and Sihombing & Eirene Panggulu (2022), where CEO education proxied as a capability factor actually has a positive impact on financial reporting fraud.

Table 4. Hypothesis Test

	B	Sig.	Conclusion
FT	.041	.023	H1 Accepted
CE(1)	.235	.330	H2 Rejected
AUDF	-.294	.001	H3 Rejected
%IND	.554	.411	H4 Rejected
AUDCHANGE(1)	-.116	.712	H5 Rejected
FAM(1)	.474	.416	H6 Rejected
Constant	4.865	.008	

Source: Processed Data (2025)

The Effect of Audit Fees on Financial Reporting Fraud

The results of testing the third hypothesis conclude that there is a negative effect on financial reporting fraud from the audit fees variable proxied as a collusion factor. In other words, high audit fees can minimize the potential for manipulation in financial statements. So that the third hypothesis proposed is rejected, which proposes that audit fees have a positive impact on financial reporting fraud. In the context of the Fraud Hexagon Theory, collusion is explained as an agreement between two or more individuals to commit fraud, for example between company management and external parties (Vousinas, 2019). Based on research data, the average audit cost log for companies in the financial sector for the 2019-2023 period is 20.73, with a minimum value of 17.77 and a maximum value of 24.59. The significant variation in audit costs between companies indicates that high audit costs do not directly reflect collusion between company management and external auditors to commit financial reporting fraud.

High audit fees can actually increase the auditor's efforts in examining and assessing the company's financial statements, which in turn affects higher audit quality, thereby minimizing the risk of fraud. This argument is supported by a study by Kaituko et al. (2023), which highlights that high audit fees are an indicator of audit quality that can help reduce the occurrence of financial reporting fraud. With better audit quality, relatively high

audit fees will also contribute to increasing the credibility of financial reporting (Alrashidi et al., 2021). Other parallel research also indicates that high audit fees are associated with stricter oversight of accounting reporting by auditors, rather than due to economic ties between auditors and clients (Gandía & Huguet, 2021). This finding is not in line with studies by Nejad et al. (2024); Shakhatreh et al. (2020); and Sihombing & Eirene Panggulu (2022), which show that higher audit costs will lead to financial reporting fraud.

The Effect of the Percentage of Independent Audit Committee on Financial Reporting Fraud

The results of testing the fourth hypothesis conclude that there is no significant effect on financial reporting fraud from the variable percentage of the independent audit committee proxied as an opportunity factor. Based on the Fraud Hexagon Theory, the percentage of independent audit committees is intended as a variable that proxies for the opportunity factor, which affects the likelihood of someone committing fraud. However, the findings in this study indicate that the independence of the audit committee does not effectively reduce or increase the potential for fraudulent practices in the financial statements. According to research data collected from companies in the financial sector between 2019 and 2023, approximately 95% of the research sample showed that audit committees consisted entirely of independent parties, or that the proportion of independent audit committee members reached 100%. This is partly because an independent audit committee is formed to comply with applicable regulations, so it is an obligation for every company (Noviyanti, 2021).

In Indonesia, regulations governing the formation of audit committees have been stipulated in POJK Number 55/POJK.04/2015, which requires issuers or public companies to have a minimum of three members in their audit committee, including one member who is an independent commissioner and two other members are professionals from outside the issuer, chaired by an independent commissioner (Otoritas Jasa Keuangan, 2015). In line with these regulations and the results of this study, Bii & Kunithia (2024) revealed that companies should prioritize the independence of the audit committee by ensuring that committee members do not have conflicts of interest and are not directly related to management. Not only that, other factors can be caused because committee members who are external parties to the company only know a handful of information about the company's business, and tend to carry out tasks or carry out similar responsibilities with other companies, resulting in the ineffectiveness of the supervision carried out (Situngkir & Triyanto, 2020). Other studies also indicate that independent audit committees have no impact on financial reporting fraud (Nurliasari & Achmad, 2015; Sijabat & Tamba, 2021; Tjen et al., 2020). This research contradicts the study by Bader et al. (2024), which found that the percentage of independent audit committees has a negative effect on financial reporting fraud.

The Effect of Auditor Switching on Financial Reporting Fraud

The results of testing the fifth hypothesis conclude that there is no significant effect on financial reporting fraud from the auditor switching variable proxied as a rationalization factor. This finding contradicts the studies by Alfarago & Mabrur (2022); Miftahul Jannah et al. (2021); and Wilantari & Ariyanto (2023), which reveal that the change of auditor was not the cause of the financial reporting fraud, as the change was made primarily to comply with applicable regulations. In accordance with the Fraud Hexagon Theory, changing external auditors can rationalize fraudulent acts because the change is perceived as capable of eliminating traces of fraud, allowing fraudsters continue commiting fraudulent acts without any guilt (Vousinas, 2019). However, the findings in this study indicate that the change of external auditors does not directly affect the occurrence of fraud. This can be because the change of the public accounting firm is not caused by fraudulent motives, but rather because the auditor's contract to audit the company's financial statements has expired (Bader et al., 2024; Larum et al., 2021).

The insignificant results of this study are further reinforced by research data from companies in the financial sector during the period 2019-2023, which found that only around 17% of the total research sample changed auditors. This indicates that auditor changes do not occur widely, so they are not the primary cause of financial reporting fraud. In line with previous research by Khamainy et al. (2022) and Wicaksono & Suryandari (2021), auditor switching is not a cause of financial reporting fraud, as the changes made are more a result of an obligation to comply with applicable regulations. POJK Number 13/POJK.03/2017 regulates that the use of audit services for examining financial statements is limited to a maximum of five consecutive financial years (Otoritas Jasa Keuangan, 2017). In addition, auditor switching can occur due to dissatisfaction with the performance of the previous auditor, with the aim of improving the effectiveness of the external auditor's performance and ensuring the production of reliable financial reports (Achmad et al., 2022). Moreover, when there is a change in auditor, the new auditor will continue to use the same audit standards as the previous auditor in evaluating the company's financial information, ensuring no significant difference in the audit process of the company's financial statements (Movaffagh & Soleimany Amiri, 2024).

The Effect of Family Firms on Financial Reporting Fraud

The results of testing the sixth hypothesis concluded that there was no significant effect on financial reporting fraud from the family firm variable proxied as the ego factor. Theoretically, the ego or arrogance factor in the Fraud Hexagon Theory refers to the individual's belief that they feel superior and consider themselves above the law, allowing them to feel free to commit fraudulent acts (Vousinas, 2019). In relation to the theory, the research results by Situngkir & Triyanto (2020) indicate that family relationships between the CEO and the board of commissioners can lead to fraudulent practices in financial reporting, as kinship relationship gives a CEOs the power to negotiate with the board of commissioners to pursue their own interests. However, the findings of this study do not support these results, as family businesses tend not to contribute to an overall increase in financial reporting fraud.

Looking at the research data, this is partly because only 4% of the total sample were classified as family businesses in the financial sector during the 2019-2023 period. This finding is supported by research from Ghofar et al. (2024), which suggests that family firms tend to avoid fraudulent practices in order to maintain their family legacy and reputation, due to their characteristics that are oriented towards long-term business continuity. A good reputation in family firms will then increase the trust of stakeholders, facilitate access to capital and professional networks, thereby improving the company's financial performance (Chaudhary et al., 2021). In addition, family involvement in company management can also create tighter internal controls, thereby encouraging transparency and accountability in financial reporting, because the family as managers has a long-term interest in maintaining reputation and business continuity (Kusuma & Fitriani, 2020)

CONCLUSION

The results of research on financial sector companies listed on the IDX during 2019-2023 indicate that two of the six variables tested based on the Fraud Hexagon Theory, have a significant effect on financial reporting fraud, while the other four variables are not proven to have a significant effect. The financial target variable as a pressure factor shows a positive influence on financial reporting fraud. Meanwhile, the audit cost variable as a collusion factor shows a negative influence on financial reporting fraud. Then, for the CEO education variable proxied as a capability factor, the percentage of independent audit committee variable proxied as an opportunity factor, the auditor switching variable proxied as a rationalization factor, and the family firm variable proxied as an ego factor, have no significant impact on financial reporting fraud. One of the limitations in this study lies in the use of the family firm variable proxied as a collusion factor, where the number of family firms in the research sample is relatively small when compared to the total

sample, which may not fully represent its influence on financial reporting fraud in the financial sector as a whole. Likewise, the use of the variable percentage of independent audit committees that do not pay in-depth attention to the applicable policies means that the majority of companies have audit committees that are 100% independent of the entire sample, which causes this variable to be unable to present fundamental differences between companies in the practice of monitoring financial reporting fraud. In addition, several variables are not considered other important aspects that may influence the interpretation of the results. For example, the audit cost variable as a proxy for collusion factors is only measured based on the natural logarithm of reported costs, without considering changes in audit costs between periods or their relationship to the audit opinion given. Similarly, the use of variables that proxy rationalization factors is only measured based on the auditor switching without distinguishing the quality of the replacement auditors, such as whether the replacement auditors are part of the Big Four accounting firms or not.

Based on existing limitations, future research is recommended to utilize other more diverse variables in measuring each factor of the Fraud Hexagon Theory, which are theoretically and practically relevant to applicable practices and policies in accordance with the industrial sector being studied. It is hoped that this research will contribute to the existing literature relating to the factors that cause financial reporting fraud by applying the Fraud Hexagon Theory perspective. This research is also expected to provide a new perspective for management, auditors, investors, and regulators in highlighting the main drivers of fraud, which can help to design effective strategies in preventing the risk of financial reporting fraud.

REFERENCES

Abdullahi, R., & Mansor, N. (2018). Fraud prevention initiatives in the Nigerian public sector: Understanding the relationship of fraud incidences and the elements of fraud triangle theory. *Journal of Financial Crime*, 25(2), 527–544. https://doi.org/10.1108/JFC-02-2015-0008

ACFE. (2020). Survei Fraud Indonesia 2019 (pp. 1–76). ACFE Indonesia Chapter.

ACFE. (2024). Association of Certified Fraud Examiners The Nations Occupational Fraud 2024 :A Report To The Nations. Association of Certified Fraud Examiners, 1–106.

Achmad, T., Ghozali, I., Helmina, M. R. A., Hapsari, D. I., & Pamungkas, I. D. (2023). Detecting Fraudulent Financial Reporting Using the Fraud Hexagon Model: Evidence from the Banking Sector in Indonesia. *Economies,* 11(1). https://doi.org/10.3390/economies11010005

Achmad, T., Ghozali, I., & Pamungkas, I. D. (2022). Hexagon Fraud: Detection of Fraudulent Financial Reporting in State-Owned Enterprises Indonesia. *Economies*, 10(1), 1–16. https://doi.org/10.3390/economies10010013

Alfarago, D., & Mabrur, A. (2022). Do Fraud Hexagon Components Promote Fraud in Indonesia? *Etikonomi,* 21(2), 399–410. https://doi.org/10.15408/etk.v21i2.24653

Alhebri, A. A., & Al-Duais, S. D. (2020). Family businesses restrict accrual and real earnings management: Case study in Saudi Arabia. *Cogent Business and Management*, 7(1). https://doi.org/10.1080/23311975.2020.1806669

Alrashidi, R., Baboukardos, D., & Arun, T. (2021). Audit fees, non-audit fees and access to finance: Evidence from India. *Journal of International Accounting, Auditing and Taxation*, 43, 100397. https://doi.org/10.1016/j.intaccaudtax.2021.100397

Aryani, Y. A., Santoso, A., Gantyowati, E., Setiawan, D., & Susanto, K. P. (2025). Does educational background of chief executive officers influence impression management? *Cogent Business and Management,* 12(1). https://doi.org/10.1080/23311975.2024.2442094

Aviantara, R. (2021). The Association Between Fraud Hexagon and Government's Fraudulent Financial Report. *Asia Pacific Fraud Journal,* 6(1), 26. https://doi.org/10.21532/apfjournal.v6i1.192

Avortri, C., & Agbanyo, R. (2021). Determinants of management fraud in the banking sector of Ghana: the perspective of the diamond fraud theory. *Journal of Financial Crime,* 28(1), 142–155. https://doi.org/10.1108/JFC-06-2020-0102

Azizah, W. (2024). Financial Statement Fraud Before the Pandemic COVID-19. *Golden Ratio of Finance Management*, 4(2), 184–189. https://doi.org/10.52970/grfm.v4i2.480

Bader, A. A., Abu Hajar, Y. A., Weshah, S. R. S., & Almasri, B. K. (2024). Predicting Risk of and Motives behind Fraud in Financial Statements of Jordanian Industrial Firms Using Hexagon Theory. *Journal of Risk and Financial Management*, 17(3). https://doi.org/10.3390/jrfm17030120

Bii, P. K., & Kunithia, P. M. (2024). Effects of Audit Committee on Fraudulent Financial Reporting Among Listed Firms in Kenya. *Journal of Economics, Finance And Management Studies*, 07(04), 1762–1771. https://doi.org/10.47191/jefms/v7-i4-03

Cesari, A. De, Dutordoir, M., & Mehmood, Z. (2023). The impact of CEO education on convertible bond issuance. *European Journal of Finance,* 29(12), 1382–1405. https://doi.org/10.1080/1351847X.2022.2131450

Chaudhary, S., Dhir, A., Ferraris, A., & Bertoldi, B. (2021). Trust and reputation in family businesses: A systematic literature review of past achievements and future promises. *Journal of Business Research,* 137(March), 143–161. https://doi.org/10.1016/j.jbusres.2021.07.052

Choi, J. H., & Gipper, B. (2024). Fraudulent financial reporting and the consequences for employees. Journal of Accounting and Economics, 78(1), 1–27. https://doi.org/https://doi.org/10.1016/j.jacceco.2024.101673

Christian, N., Fedelia, J., Te, J., & Vellin, M. (2023). Analisis Kasus Pt. Asabri (Persero) Dengan Teori Dasar Fraud. *Jurnal Multilingual*, 3(3), 1412–4823. www.idx.co.id

Dechow, P. M., Ge, W., Larson, C. R., & Sloan, R. G. (2011). Predicting Material Accounting Misstatements. *Contemporary Accounting Research*, 28(1), 17–82. https://doi.org/10.1111/j.1911-3846.2010.01041.x

Gandía, J. L., & Huguet, D. (2021). Audit fees and earnings management: differences based on the type of audit. *Economic Research-Ekonomska Istrazivanja* , 34(1), 2628–2650. https://doi.org/10.1080/1331677X.2020.1836990

Gbadebo, A. D., Akande, J. O., & Adekunle, A. O. (2023). Financial Statements Fraud of Banks and other Financial Institutions in Nigeria. *International Journal of Professional Business Review,* 8(9). https://doi.org/10.26668/businessreview/2023.v8i9.3074

Ghofar, A., Rasli, A., & Prestianawati, S. A. (2024). Financial Statement Fraud Risk and Financial Distress of Family Business: Socio-Emotional Wealth (SEW) Perspective. *Jurnal Ilmiah Akuntansi,* 9(1), 362–377. https://doi.org/10.23887/jia.v9i1.75145

Gottschalk, P., & Asting, C. (2019). The family firm as an arena for white-collar crime. *International Journal of Business Continuity and Risk Management,* 9(4), 283–297. https://doi.org/10.1504/ijbcrm.2019.10021167

Hakim, M. Z., Hamdani, Hustna Dara Sarra, Alvina Anggraini, Gadis Ayu Rizky Darmala, & Elsa Audia Utami. (2024). How Fraud Hexagon Model on Financial Statement Fraud in Energy Sector Companies? *International Journal of Accounting, Management, Economics and Social Sciences (IJAMESC),* 2(3), 775–794. https://doi.org/10.61990/ijamesc.v2i3.230

Handoko, B. L., & Tandean, D. (2021). An Analysis of Fraud Hexagon in Detecting Financial Statement Fraud (Empirical Study of Listed Banking Companies on Indonesia Stock Exchange for Period 2017-2019). *ACM International Conference Proceeding Series,* 93–100. https://doi.org/10.1145/3457640.3457657

Horwarth, C. (2012). The Mind Behind the Fraudsters Crime: Key Behavioral and Environmental Elements. In United States of America: Crowe Horwath LLP (pp. 1–62). https://www.crowe.com/

Kaituko, L. E., Githaiga, P. N., & Chelogoi, S. K. (2023). Board structure and the likelihood of financial statement fraud. Does audit fee matter? Evidence from manufacturing firms in the East Africa community. *Cogent Business and Management,* 10(2). https://doi.org/10.1080/23311975.2023.2218175

Khamainy, A. H., Amalia, M. M., Cakranegara, P. A., & Indrawati, A. (2022). Financial Statement Fraud: The Predictive Relevance of Fraud Hexagon Theory. *Journal of Accounting and Strategic Finance,* 5(1), 110–133. https://doi.org/10.33005/jasf.v5i1.249

Kusuma, H., & Fitriani, N. (2020). Ownership structure and the likelihood of financial reporting fraud. *International Journal of Innovation, Creativity and Change*, 13(1), 121–140.

Kusumosari, L., & Solikhah, B. (2021). Analisis Kecurangan Laporan Keuangan Melalui Fraud Hexagon TheorY. FairValue : *Jurnal Ilmiah Akuntansi Dan Keuangan*, 4(3), 753–767.

Larum, K., Zuhroh, D., & Subiyantoro, E. (2021). Fraudlent Financial Reporting: Menguji Potensi Kecurangan Pelaporan Keuangan dengan Menggunakan Teori Fraud Hexagon. *AFRE (Accounting and Financial Review)*, 4(1), 82–94. https://doi.org/10.26905/afr.v4i1.5818

Makki, S. (2020). BPK Sebut Kecurangan Jiwasraya Rp7,7 Triliun pada 2017. CNN Indonesia. https://www.cnnindonesia.com/ekonomi/20200108141551-78-463471/bpk-sebut-kecurangan-jiwasraya-rp77-triliun-pada-2017

Mayasari. (2022). Pengaruh Financial Stability, Efektivitas Internal Control, Dan. *Jurnal Bisnis Dan Manajemen*, 2(2), 128–142.

Miftahul Jannah, V., Andreas, A., & Rasuli, M. (2021). Pendekatan Vousinas Fraud Hexagon Model dalam Mendeteksi Kecurangan Pelaporan Keuangan. Studi Akuntansi Dan Keuangan Indonesia, 4(1), 1–16. https://doi.org/10.21632/saki.4.1.1-16

Mohammad, W. M. W., Wasiuzzaman, S., Morsali, S. S., & Zaini, R. M. (2018). The Effect of Audit Committee Characteristics on Financial Restatements in Malaysia. *Journal of Asia-Pacific Business,* 19(1), 4–22. https://doi.org/10.1080/10599231.2018.1419043

Movaffagh, S., & Soleimany Amiri, G. (2024). An Analysis of Fraudulent Financial Reporting Based on Fraud Hexagon Theory in Companies Listed on the Tehran Stock Exchange. *Iranian Journal of Finance*, 8(3), 1–24.

Nasir, N. A. binti M., Ali, M. J., Razzaque, R. M. R., & Ahmed, K. (2018). Real earnings management and financial statement fraud: evidence from Malaysia. *International Journal of Accounting & Information Management,* 26(4), 508–526. https://doi.org/https://doi.org/10.1108/IJAIM-03-2017-0039

Nejad, M. Y., Khan, A. S., & Othman, J. (2024). A panel data analysis of the effect of audit quality on financial statement fraud. *Asian Journal of Accounting Research*, 9(4), 422–445. https://doi.org/10.1108/AJAR-04-2023-0112

Nguyen, T. T. C., & Nguyen, C. Van. (2024). Does the education level of the CEO and CFO affect the profitability of real estate and construction companies? Evidence from Vietnam. *Heliyon,* 10(7), e28376. https://doi.org/10.1016/j.heliyon.2024.e28376

Noble, M. R. (2019). Fraud diamond analysis in detecting financial statement fraud. *The Indonesian Accounting Review,* 9(2), 121–132. https://doi.org/10.14414/tiar.v9i2.1632

Noviyanti, F. (2021). the Effect of Company Size, Quality, and Independence of the Audit Committee on Fraud Financial Reporting on Idx Companies. *Journal of Economis, Business and Accounting,* 5, 738–754.

Nurliasari, K. E., & Achmad, T. (2015). Pengaruh Karakteristik Komite Audit Terhadap Kecurangan Pelaporan Keuangan (Studi Empiris Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2015-2017). *Diponegoro Journal of Accounting,* 9(1), 1–12. http://ejournal-s1.undip.ac.id/index.php/accounting

Otoritas Jasa Keuangan. (2015). POJK No 55 /POJK.04/2015 Tentang Pembentukan Dan Pedoman Pelaksanaan Kerja Komite Audit. In Ojk.Go.Id.

Otoritas Jasa Keuangan. (2017). Peraturan Otoritas Jasa Keuangan Nomor 13/POJK.03/2017 tentang Penggunaan Jasa Akuntan Publik dan Kantor Akuntan Publik Dalam Kegiatan Jasa Keuangan. In Ojk.Go.Id.

Pramana, Y., Suprasto, H. B., Putri, I. G. A. M. D., & Budiasih, I. G. A. N. (2019). Fraud factors of financial statements on construction industry in Indonesia stock exchange. *International Journal of Social Sciences and Humanities*, 3(2), 187–196. https://doi.org/10.29332/ijssh.v3n2.313

Preicilia, C., Wahyudi, I., & Preicilia, A. (2022). Analisa kecurangan laporan keuangan dengan perspektif teori Fraud Hexagon. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan,* 5(3), 1467–1479. https://doi.org/10.32670/fairvalue.v5i3.2476

Ratmono, D., Diany, Y. A., & Purwanto, A. (2018). Dapatkah Teori Fraud Triangle Menjelaskan Kecurangan Dalam Laporan Keuangan? *Jurnal Akuntansi Dan Auditing,* 14(2), 100. https://doi.org/10.14710/jaa.14.2.100-117

Rengganis, R. M. Y. D., Sari, M. M. R., Budiasih, I. G. A. ., Wirajaya, I. G. A., & Suprasto, H. B. (2019). The fraud diamond: element in detecting financial statement of fraud. *International Research Journal of Management, IT and Social Sciences*, 6(3), 1–10. https://doi.org/10.21744/irjmis.v6n3.621

Sahla, W. A., & Ardianto, A. (2023). Ethical values and auditors fraud tendency perception: testing of fraud pentagon theory. *Journal of Financial Crime,* 30(4), 966–982. https://doi.org/10.1108/JFC-04-2022-0086

Sanjaya, I., Suyanto, S., & Sari, G. P. (2021). Pengaruh Kepemilikan Saham Eksekutif, Ceo Education Dan Pergantian Auditor Terhadap Kecurangan Laporan Keuangan Pada Perusahaan Bumn (Studi Empiris Pada Perusahaan Bumn Yang Terdaftar Di Bei). *Jurnal Akuntansi AKTIVA,* 2(1), 87–94. https://doi.org/10.24127/akuntansi.v2i1.902

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

Shakhatreh, M. Z., Alsmadi, S. A., & Alkhataybeh, A. (2020). The effect of audit fees on disclosure quality in Jordan. *Cogent Business and Management,* 7(1). https://doi.org/10.1080/23311975.2020.1771076

Sihombing, T., & Eirene Panggulu, G. (2022). Fraud Hexagon Theory And Fraudulent Financial Statement In IT Industry In Asean. *Jurnal Reviu Akuntansi Dan Keuangan*, 12(3), 524–544. https://doi.org/10.22219/jrak.v12i3.23334

Sijabat, J., & Tamba, R. A. (2021). Empirical Study Of The Effect Of The Audit Committee Characteristics On Fraudulent Financial Reporting. *International Journal Reglement & Society (IJRS,* 2(3), 125–135. https://doi.org/10.55357/ijrs.v2i3.138

Situngkir, N. C., & Triyanto, D. N. (2020). Detecting Fraudulent Financial Reporting Using Fraud Score Model and Fraud Pentagon Theory : Empirical Study of Companies Listed in the LQ 45 Index. *The Indonesian Journal of Accounting Research*, 23(03), 373–410. https://doi.org/10.33312/ijar.486

Skousen, C. J., Smith, K. R., & Wright, C. J. (2009). Detecting and Predicting Financial Statement Fraud: The Effectiveness of The Fraud Triangle and SAS No. 99 in Corporate Governance and Firm Performance. In Advances in Financial Eonomics: Corporate Governance and PerformanceISt edition, JAI Publishing, Emerald Group. https://doi.org/https://doi.org/10.1108/S1569-3732(2009)0000013005

Tjen, F., Sitorus, T., & Chasanah, R. N. (2020). Financial Stability, Leverage, Ineffective Monitoring, Independent Audit Committee, and the Fraudulent Financial Statement. *International Research Journal of Business Studies,* 13(2), 161–172. https://doi.org/10.21632/irjbs.13.2.161-172

Toit, E. du. (2024). The red flags of financial statement fraud: a case study. *Journal of Financial Crime*, 31(2), 311–321. https://doi.org/10.1108/JFC-02-2023-0028

Urquhart, A., & Zhang, H. (2022). PhD CEOs and firm performance. *European Financial Management,* 28(2), 433–481. https://doi.org/10.1111/eufm.12316

Utami, A., Bukit, R. B., & Aulia Adnans, A. (2024). Analysis of Vousinas Fraud Hexagon Theory on the Detection of Financial Statement Fraud in Service Companies Listed on Indonesia Stock Exchange (IDX) 2018-2022. *International Journal of Current Science Research and Review,* 07(08), 6167–6183. https://doi.org/10.47191/ijcsrr/v7-i8-30

Vousinas, G. L. (2019). Advancing theory of fraud: the S.C.O.R.E. model. *Journal of Financial Crime,* 26(1), 372–381. https://doi.org/10.1108/JFC-12-2017-0128

Wicaksono, A. (2023). OJK Temukan Penggelapan Dana dalam Laporan Keuangan Kresna Life. CNN Indonesia. https://www.cnnindonesia.com/ekonomi/20230217113542-78-914343/ojk-temukan-penggelapan-dana-dalam-laporan-keuangan-kresna-life

Wicaksono, A., & Suryandari, D. (2021). Accounting Analysis Journal The Analysis of Fraudulent Financial Reports Through Fraud Hexagon on Public Mining Companies ARTICLE INFO ABSTRACT. *Accounting Analysis Journal,* 10(3), 220–228. https://doi.org/10.15294/aaj.v10i3.54999

Wilantari, N. M., & Ariyanto, D. (2023). Determinan Fraud Hexagon Theory dan Indikasi Financial Statement Fraud. *E-Jurnal Akuntansi,* 33(1), 87. https://doi.org/10.24843/eja.2023.v33.i01.p07