
FRAUD DIAMOND PERSPECTIVE IN DETECTING AND UNDERSTANDING FINANCIAL REPORTING IRREGULARITIES IN PUBLICLY LISTED COMPANIES

Rina Deviani¹

Sekolah Tinggi Ilmu Ekonomi STAN-Indonesia Mandiri, Bandung, Indonesia

devianirina01@gmail.com

Ferdiansyah²

Sekolah Tinggi Ilmu Ekonomi STAN-Indonesia Mandiri, Bandung, Indonesia

f.ritonga@stan-im.ac.id

Abstract

This study examines the impact of pressure, opportunity, rationalization, and capability as defined by the Fraud Diamond Theory Wolfe & Hermanson, 2004 on fraudulent financial reporting indicators in energy sector companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. A quantitative approach employing multiple linear regression was adopted. Secondary data were extracted from annual financial statements published on the IDX website. Pressure was proxied by the debt-to-assets ratio, opportunity by a corporate governance index, rationalization by audit opinion, and capability by changes in the board of directors. Fraudulent reporting was identified using the Beneish M-Score model. The sample comprised 52 companies selected via purposive sampling based on predefined criteria. Opportunity and rationalization exhibited a statistically significant positive relationship with financial statement fraud. In contrast, pressure and capability showed no significant effect. This study validates the Fraud Diamond Theory in Indonesia's energy sector, highlighting corporate governance and auditor oversight as critical fraud predictors. It offers empirical evidence for regulators to prioritize governance reforms and audit transparency over conventional leverage-based risk assessments.

Keywords: Beneish M-Score, Corporate Governance, Financial Statement Fraud, Fraud Diamond Theory, IDX

INTRODUCTION

Fraud is fraudulent treatment carried out intentionally to gain profit by deceiving or hiding information (Octariyanti & Zaenuddin, 2022). According to Albrecht et al., (2019:10), , fraud is divided into three main types: financial record fraud, corruption, and misuse of assets. In the case of financial statement fraud, perpetrators usually manipulate income, reduce liabilities, or hide important information so that financial records look better than they should (Ainun & Yanti, 2023).

Fraud in the presentation of financial statements is a crucial issue in the business world, because it can cause losses to the company, erode investor confidence, and threaten the capability of the capital market. This practice usually involves manipulating financial data to create a better picture than the actual condition (Tuanakotta, 2019:110). According to a report from the Association of Certified Fraud Examiners (ACFE), financial fraud cases continue to increase every year, with 2,690 cases recorded in 2018. The banking and financial services sectors are the most vulnerable, indicating that the practice of manipulating financial statements still occurs frequently (Alfina & Amrizal, 2020).

A survey conducted by ACFE Indonesia on 239 participants revealed that the most dominant form of fraud in Indonesia is corruption, which accounts for 64.4% of the total cases. In the next place is the misuse of state and company assets worth 28.9%, while financial statement manipulation is at the bottom with 6.7% (Association of Certified Fraud Examiners Indonesia, 2019:14).

Several cases of fraudulent financial reporting in Indonesia illustrate how serious this problem is. For example, in 2019, Bank BRI found irregularities in transactions at BRI Unit Tapung, including a difference between the balance sheet and cash balances, as well as a cash deposit of Rp1.6 billion transferred from Unit Pasir Pangaraian II (Alfina & Amrizal, 2020). This case is an example of asset misappropriation, where company funds are misused or diverted unlawfully. Another case is PT Jiwasraya, which suffered losses of up to IDR 15.3 trillion in 2018 due to manipulation of financial statements that had been going on since 2006 (Monica et al., 2023). The fraud that occurred at Jiwasraya was included in financial statement fraud, where the company deliberately engineered financial statements to look financially healthy, even though the actual conditions were full of losses and customer policy defaults. In 2019, PT Tiga Pilar Sejahtera Food Tbk was revealed to have manipulated its financial statements since 2017. This case began with the discovery that its subsidiary, PT Indo Beras Unggul, was repackaging subsidized rice into premium rice. As a result, the company's shares decreased significantly (Luthfiyyah & Dongoran, 2023). The form of fraud in this case involves misrepresentation of financial information, which is a financial report that does not reflect the actual conditions due to unethical business practices.

To prevent losses, accurate detection of fraud is very important (Izzati & Syofyan, 2023). The fraud triangle theory proposed by Cressey 1953 and then further developed by Wolfe and Hermanson 2004 into the fraud diamond theory which provides a framework for understanding this phenomenon. According to this theory, the four main aspects that encourage someone to commit fraud are “pressure, opportunity, rationalization, and capability” (Wolfe & Hermanson, 2004).

Pressure often arises from high financial demands, such as debt burdens or unrealistic profit targets (Skousen et al., 2009). Opportunities to commit fraud usually arise due to weaknesses in internal control, which open gaps for fraud (Eugster et al., 2024).

Rationalization occurs when perpetrators seek ethical justification for their fraudulent actions (Yusrianti et al., 2020). When the pressure and opportunities felt by fraudsters are low, perpetrators need more rationalization to commit fraud (Arianto et al., 2023:41). Capability also plays an important role, because fraud requires expertise, access, and strategic position to manipulate financial systems or data (Wolfe & Hermanson, 2004). Without sufficient capability, even if pressure, opportunity and rationalization exist, fraud may not occur.

Various previous studies have found the impact of capability, opportunity, rationalization, pressure on financial reporting fraud. The findings of Achmad & Pamungkas (2018), Hidayah & Saptarini (2020) and Lauwrens & Yanti (2022), found that pressure, opportunity and rationalization have a significant impact on fraudulent financial reporting. The studies conducted by Puspitha and Yassa (2018) as well as Lestari and Jayanti (2021) demonstrate that rationalization significantly influences fraudulent financial reporting. The study of Wea et al., (2023), proves that capability has a significant impact on fraudulent financial statements. However, other findings provide different results. Mardianto & Tiono (2019), Tirtawirya & Riyadi (2021) and Iskandar et al., (2022), found that the variables of pressure and opportunity had an insignificant effect on fraud. In addition, Kurniawati & Sarwono (2024), concluded that rationalization has a positive and insignificant impact on reporting fraud. Prakoso & Setiyorini (2021), found that capability has no impact on indications of corporate financial statement fraud. The inconsistency of the results of previous studies indicates the need for further research.

This research contributes theoretically by strengthening the fraud diamond theory through empirical evidence about the aspects that influence fraudulent financial reporting in the energy sector. The results are expected to add insight in understanding how pressure, opportunity, rationalization, and capability drive fraud. Practically, this research can help companies strengthen internal controls, implement whistleblowing policies, and improve financial statement transparency. In addition, regulators such as the OJK and IDX can use these findings to formulate more effective fraud prevention policies. For investors, this research can serve as a guide in assessing investment risk and identifying potential fraud that may impact their decisions.

The energy sector was chosen as the focus of the study because operational complexity and high competition in this industry often create additional pressure on management to demonstrate optimal financial performance. According to Tuanakotta (2019:120), the financial statements of energy sector companies tend to be more vulnerable to manipulation because they involve complex accounts, such as inventory and production costs. The manufacturing sector also faces challenges such as fluctuations in raw material prices and global competition, which can increase pressure to manipulate financial statements (Teslatum et al., 2024).

This research focuses on the energy sector of the energy industry because its characteristics increase the risk of fraudulent financial reporting. First, strict regulatory pressure and high operational costs, such as energy exploration and distribution, encourage manipulation of financial statements to meet market expectations (Management Solutions, 2017:20). Second, operational complexity, fuel supply chain management and commodity price fluctuations create opportunities for fraud (Sani, 2024). Third, high competition and the demand to maintain the stability of energy supply trigger the rationalization that manipulation is carried out (Solikhah & Cahyaningtyas, 2024).

Recent corruption cases in the energy sector further strengthen the urgency of this research. According to ACFE (2022), the energy sector recorded the highest level of corruption at 64%, with 8% of them being cases of financial statement fraud. These findings indicate that the energy sector is highly vulnerable to fraudulent practices, both in the form of corruption and manipulation of financial statements. Thus, the energy sector is a relevant context for examining the influence of pressure.

REVIEW OF LITERATURE

Fraud

Statement on Auditing Standards No. 99 (SAS 99), “fraud is described as an intentional act that causes material errors in the financial statements, which is the primary focus of an audit”. According to Zimbelman & Albrecht (2019), fraud includes various ways that utilize human ingenuity to gain an advantage by presenting misleading or inaccurate information.

Fraud Triangle

The Fraud Triangle Theory, first proposed by Donald R. Cressey in 1953, is used to analyze the aspects that encourage fraud. The theory identifies three main elements: pressure, opportunity and rationalization, which together can create conditions that facilitate fraud.

Fraud Diamond Theory

The Fraud Diamond concept proposed by Wolfe dan Hermanson (2004), is a refinement of the Fraud Triangle model, by inserting the element of capability as the fourth factor in explaining fraud. Capability refers to the personal characteristics of perpetrators, such as expertise, authority and confidence, which enable them to commit fraud effectively. Fraud perpetrators often have traits such as intimidating capability, high self-confidence, and authority to make strategic decisions, which facilitate fraud (Dewi & Pertama, 2020).

According to Zimbelman & Albrecht (2019:102), pressure refers to the impetus that makes someone tend to commit fraud. Pressure usually arises due to financial problems (Priantara, 2015:40). One indicator that can be used to measure pressure is financial stability. According to Kayoi & Fuad (2019), “financial stability is a condition in which the company's finances are in a stable state, allowing the company to meet all operating needs.”

According to Priantara (2015:46), opportunity is a situation where fraud can be carried out. An indicator used to assess opportunities is ineffective monitoring. Suboptimal monitoring occurs when the company does not have a supervisory division that is able to carry out the performance control function efficiently (Purwaningtyas & Ayem, 2021).

According to Priantara (2015:46), rationalization is the perpetrator's attempt to justify his actions so that they feel acceptable. Rationalization helps offenders feel at ease with their actions, allowing them to continue their crimes without guilt (Christy & Stephanus, 2019).

According to Wolfe & Hermanson (2004), fraudulent behavior will not occur without people having the right desire. This capability includes six components: (1) position or position, which provides access to commit fraud; (2) intelligence, which is the capability to take advantage of internal control weaknesses; (3) ego, or high self-confidence that makes the perpetrator difficult to detect; (4) coercion, where directors force employees to hide fraud; (5) fraud, which is a lie made to convince stakeholders; and (6) pressure, which arises from the risk of fraud detection. This capability can be proxied through the variable turnover of

directors, which indicates changes in the management structure that may affect the risk of fraud.

According to ACFE (2018), financial statement fraud occurs when companies intentionally manipulate financial information by presenting false data, omitting certain figures, or hiding important information, with the aim of deceiving stakeholders. Financial statement fraud can occur for various motives, such as attracting investors through issuing bonds, increasing the value of company shares, or obtaining incentives in the form of bonuses. According to the AICPA, there are three main methods in financial statement fraud, namely modifying documents, deliberately presenting inaccurate information, and misapplying applicable accounting principles (Indriani & Rohman, 2022).

Research Framework

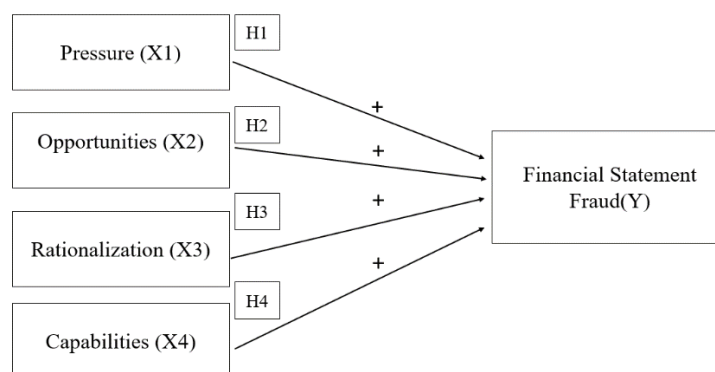


Figure 1.
Research Framework

The Effect of Pressure on Financial Statement Fraud

Pressure is a major aspect that drives financial reporting fraud. According to Wolfe & Hermanson (2004), fraud diamond theory, pressure can come from external demands such as unrealistic financial targets or high debt loads, as well as internal ones such as management pressure to achieve performance. When financial pressure is great, management tends to manipulate financial reports to make them look better (Tuanakotta, 2019:76). Research by Khamainy et al., (2022) and Solikhin & Parasetya (2023), proves that pressure has a real and significant impact on financial statement fraud, especially in companies with high debt ratios. This finding is similar to the study of Fathmaningrum & Anggarani (2021), which states that external pressure has a significant impact on financial reporting fraud on manufacturing companies in Malaysia and Indonesia. The level of financial statement fraud in Indonesia is higher than Malaysia.

Based on this, the authors formulate a hypothesis:

H₁: “Pressure has a positive and significant impact on financial statement fraud.”

The Effect of Opportunity on Financial Statement Fraud

Opportunity refers to a situation that opens up the possibility of fraudulent acts, for example due to a weak internal control system or lack of supervision. According to Cressey's Fraud Triangle theory (1953), opportunities facilitate fraud because they make it easier to manipulate data without being detected. Lastanti (2020) and Handayani et al., (2021), prove that opportunities have a positive and significant impact on financial statement fraud. This

finding is reinforced by Devi et al., (2021), finding that opportunities have a positive impact on fraudulent financial statements in BUMN listed on the IDX. The higher the level of fraud pentagon in the company, the greater the indication of financial statement fraud.

As such, the authors formulate a hypothesis:

H₂: “Opportunity has a positive and significant impact on financial statement fraud.”

The Effect of Rationalization on Financial Statement Fraud

Rationalization is the process by which fraudsters justify their actions with reasons such as “for the benefit of the company” or “it is common practice”. Rationalization helps perpetrators reduce guilt and convince themselves that their actions are acceptable (Yusrianti *et al.*, 2020). Research by Marheni & Suryati (2021) and Nurwahyuni (2024), proves that rationalization has a positive and significant impact on financial statement fraud, because management often applies this reason to justify manipulating financial data. This finding is reinforced by Charlopova et al., (2020), who through panel regression analysis also found that rationalization has a significant correlation with fraudulent financial records.

As such, the authors formulate a hypothesis:

H₃: “Rationalization has a positive and significant impact on financial statement fraud.”

The Effect of Capability on Financial Statement Fraud

Capability is a key factor in the Fraud Diamond theory which explains that fraud requires individuals with technical expertise, access to financial systems, and strategic positions (Wolfe & Hermanson, 2004). Research by Purnaningsih (2022) and Ufiana & Triyanto (2022), indicates that capability has a positive and significant impact on financial statement fraud. This study was strengthened by Lotfi et al., (2022), who found that capability tends to influence fraud, especially in companies with frequent changes in directors. Management instability in these situations can increase the risk of fraud.

Based on this, the authors formulate a hypothesis:

H₄: “Capability has a positive and significant impact on financial statement fraud.”

RESEARCH METHOD

This study applies a quantitative approach with the causality method to analyze the correlation with rationalization, opportunity, pressure and capability on financial reporting fraud. The quantitative approach is used because the data analyzed is numerical and uses statistical tests (Sugiyono, 2021:15). The data applied in this study is secondary data, which is obtained from the annual financial records of energy sector companies obtained on the official IDX website (www.idx.co.id).

The population in this study is energy sector companies listed on the IDX during the 2019-2023 period, with a total of 52 companies. The sampling technique applies purposive sampling, which is a sample selection technique that refers to certain criteria (Sugiyono, 2021:85). Purposive sampling was chosen to ensure that the sample used was relevant and in line with the purpose of this study (Cooper & Schindler, 2021:170). The sampling criteria in this study include, companies that consistently publish complete annual financial statements during the period, energy sector companies listed on the IDX during the 2019-2023 period, and companies that have complete data to calculate Beneish M-Score and independent variables (pressure, opportunity, rationalization, and capability).

According to Skousen (2009), pressure can be assessed using the leverage ratio, which is total debt divided by total assets. This leverage ratio reflects the company's dependence on external funding. The higher the leverage ratio, the greater the financial burden and financial risk that the company needs to bear. (Tuanakotta, 2019:76). This theory is in line with the concept of the Fraud Triangle, where pressure is the main trigger for fraud.

$$LEV = \frac{\text{Total Debt}}{\text{Total Assets}}$$

According to Tuanakotta (2019), changes in receivables can be measured using the formula "Receivable = (Receivable_t / Sales_t) - (Receivable_(t-1) / Sales_(t-1))". A significant change in this ratio indicates an opportunity to manipulate financial statements, such as fictitious revenue recognition or engineering of receivables. This is a red flag indicating potential fraud, especially if the change is not in line with business trends or the company's operating conditions.

$$RECEIVABLE = \frac{Receivable_t}{Sales_t} - \frac{Receivable_{t-1}}{Sales_{t-1}}$$

According to Tuanakotta (2019), high total accruals may indicate rationalization efforts in financial reporting. Total accruals are obtained from the difference with cash flow and net income generated from operating activities. If there is a significant difference between the two components, this could indicate a managerial effort to rationalize the practice of manipulating financial information. This measure is often used as an indicator to identify the possibility of fraud in the presentation of financial statements.

Total Accruals = Net Income - Cash Flow from Operating Activities

According to Wolfe & Hermanson (2004), "frequent board turnover may indicate management instability, potentially increasing the risk of fraud." Therefore, board turnover can be applied as an indicator to measure capability in the context of financial statement fraud.

According to Beneish (1999), "Beneish M-Score is a statistical model developed to obtain potential fraud or manipulation in financial statements. This model uses eight financial ratios to calculate the score (M-Score). If the M-Score is > -2.22, the company is indicated as having the potential for manipulation, while if the M-Score is ≤ -2.22, the company is considered not to have committed fraud." This model uses eight main indicators, namely DSRI, GMI, AQI, SGI, DEPI, SGAI, LVGI, and TATA.

$$MScore = -4.84 + 0.92 \times DSRI + 0.528 \times GMI + 0.404 \times AQI + 0.892 \times SGI + 0.115 \times DEPI - 0.172 \times SGAI + 4.679 \times TATA - 0.327 \times LVGI$$

This study applies multiple linear regression analysis methods to evaluate the extent to which the independent variables, consisting of rationalization, opportunity, pressure, and capability, have an impact on the dependent variable in the form of fraud in the presentation of financial statements. (Ghozali, 2021:157). The regression model used is formulated as follows:

$$FFR = \beta_0 + \beta_1 LEV + \beta_2 RECEIVABLE + \beta_3 TOTAL_ACRUAL + \beta_4 CAPABILITY + \epsilon$$

Where LEV is assessed on the leverage ratio (total debt/total assets), Receivable with changes in receivables, Total_Accrual with the difference between operating cash flow and net income, and Capability with the frequency of changes in directors. The regression

coefficient (β) shows the amount of influence of each variable, with a significance test to determine whether the influence is meaningful. Previously, tests were carried out on classical assumptions consisting of normality, multicollinearity, and heteroscedasticity to ensure the validity of the model used. The data were analyzed using SPSS version 29 software, with the results of the interpretation indicating the extent to which rationalization, opportunity, pressure, and capability affect the occurrence of fraudulent financial statements in energy sector companies listed on the IDX.

RESULTS AND DISCUSSION

Statistical Test Results and Regression Assumption Test

Table 1.

Descriptive Statistical Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
Pressure	260	,01	,98	,4815	,23117
Opportunity	260	-,31	,32	-,0015	,08934
Rationalization	260	-,50	,27	-,0400	,09500
Capability	260	,00	1,00	,4654	,49976
Financial statement fraud	260	-1,50	1,50	-1,8500	,85000
Valid N	260				

Source: SPSS output29, processed 2025

Table 1 presents descriptive statistical testing of the five variables studied with a sample of 260 respondents. The pressure variable indicates a mean of 0.48 with a standard deviation of 0.23, indicating that most of the data is concentrated around the mean value. The opportunity and rationalization variables have mean values close to zero (-0.001 and -0.040) with relatively small standard deviations (0.089 and 0.095), indicating a balanced data distribution. The capability variable has a mean of 0.47 with a fairly high standard deviation (0.50), indicating greater data diversity. The financial statement fraud variable recorded a mean value of -1.85 with a standard deviation of 0.85, indicating a fairly wide distribution of data. Overall, it illustrates the diverse characteristics of the data; some variables, such as opportunity and rationalization, tend to be stable, while capability and financial statement fraud show higher variation.

Table 2.

Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		260
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	1,04897132
Most Extreme Differences	Absolute	,058
	Positive	,058
	Negative	-,050

Test Statistic	,058
Asymp. Sig. (2-tailed) ^c	,084

Source: SPSS output29, processed 2025

Kolmogorov-Smirnov test output in Table 2, it can be concluded that the residual data meet the assumption of normality. This is shown by the acquisition of Sig. 0.084, which exceeds the critical limit of 0.05, indicating that the data distribution does not deviate significantly from the normal pattern. The test statistic of 0.058 with a maximum difference of 0.058 further strengthens this conclusion. These results prove the feasibility of using parametric statistical methods for further analysis.

Table 3.
Auto Correlation Test Results

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	,235 ^a	,055	,040	1,05717	1,866

Source: SPSS output29, processed 2025

The Durbin-Watson test result of 1.866 indicates that there is no significant autocorrelation in the regression model. This result is within the range of 1.5-2.5, which indicates that there is no serial correlation between residuals. Therefore, the condition of residual independence has been met, so the regression model can be validly used for further analysis.

Discussion of Research Results

Table 4.
Results of the t-test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1,867	,176		-10,585	,000
	Pressure	-,121	,290	-,026	-,416	,678
	Opportunity	1,510	,741	,125	2,037	,043
	Rationalization	1,447	,515	,171	2,810	,005
	Capability	,207	,133	,096	1,555	,121

Source: SPSS output29, processed 2025

The Effect of Pressure on Financial Statement Fraud

The results of the analysis indicate that the tcount is -0.416 with a level of Sig. 0,678 ($p > 0,05$). The regression coefficient of -0.121 indicates that there is an insignificant negative correlation between pressure and financial statement fraud. This means that H1 which says that pressure has a significant impact on financial statement fraud is rejected. This finding is not in line with the Fraud Triangle theory which says pressure is a trigger for fraud, but it can be explained that companies in the sample may have good control mechanisms against financial pressure.

This study is in line with the study of Ijudien (2018), which indicates that pressure does not have a significant impact on financial statement fraud partially. These results indicate that the aspect of pressure as one of the elements of the Fraud Diamond may not

always be the main driver of fraudulent practices, especially in the context of a business environment with strong internal controls or certain industry characteristics.

The Effect of Opportunity on Financial Statement Fraud

It was found that the tcount was 2.037 ($> t$ table 1.969) with Sig. 0,043 ($p < 0,05$). The positive regression coefficient of 1.510 indicates that opportunity has a significant effect on financial statement fraud. This finding supports H2 and is consistent with the Fraud Diamond theory which states that opportunity is a key aspect in the occurrence of fraud. Each increase of one unit of opportunity will increase the tendency to cheat by 1.510 units, assuming other variables are constant.

This finding strengthens the research of Rukmana (2018) and Yulistiyawati et al., (2019), which indicate that opportunity is a significant aspect in influencing financial statement fraud.

The Effect of Rationalization on Financial Statement Fraud

The analysis shows titung 2.810 with Sig. 0.005 ($p < 0.01$) and a positive coefficient of 1.447. These results support H3 and confirm that rationalization has a significant impact on financial statement fraud. This study is in line with previous findings which state that ethical justification (rationalization) is a determining factor in the decision to commit fraud, especially in the energy sector which has high operational complexity.

This finding is in line with the research of Rifa & Tasrif (2022) and Okafor & Egbunike (2023), which say that rationalization has a positive and significant impact on financial statement fraud. These results reinforce the role of rationalization as a key element in the Fraud Diamond, where individuals or entities use psychological justification to legitimize fraudulent acts, even in the context of a regulated energy sector such as the IDX.

The Effect of Capability on Financial Statement Fraud

Obtained tcount 1.555 (smaller than ttable) with Sig. 0,121 ($p > 0,05$). Although the coefficient is positive (0.207), this result indicates that H4 is rejected. This insignificance could be due to the homogeneity of managerial capabilities in the energy sector or the effectiveness of the supervisory system implemented by the companies in the sample.

This finding is in line with the findings of Matangkin et al. (2018), Soepriyanto et al., (2021) and Sabaruddin (2022), who said that capability has no significant impact on financial statement fraud. These results indicate that the capability factor, although included in the Fraud Diamond element, is not always the main driver of fraudulent practices, especially in the context of the energy sector on the IDX for the 2019-2023 period.

Hypothesis Testing

Table 5.
Hypothesis Testing Results of the Effect of Fraud Diamond Factors on Financial Statement Fraud

Hypothesis	Variable	Regression coefficient B	t-count	t-table	Sig.	decision
H ₁	Pressure	-,121	-,416	1,969	,678	Rejected
H ₂	Opportunity	1,510	2,037	1,969	,043	Accepted
H ₃	Rationalization	1,447	2,810	1,969	,005	Accepted
H ₄	Capability	,207	1,555	1,969	,121	Rejected

Source: Primary Data, processed 2025

CONCLUSION

As a result of the analysis, it can be concluded that not all elements of the Fraud Diamond have a significant impact on financial statement fraud in the energy sector on the IDX for the 2019-2023 period. The findings indicate that opportunity and rationalization have a statistically significant and positive impact on fraud, following the Fraud Diamond theory. This indicates that the greater the opportunity and capability of the perpetrator to psychologically justify fraudulent acts, the higher the risk of financial statement manipulation. Pressure and capability did not show a significant effect, contrary to some of the premises of the Fraud Triangle theory.

The insignificance of pressure may be due to the effectiveness of the company's internal control mechanisms in managing financial pressure, while homogeneous capabilities in the energy sector and a strict supervisory system may explain why this variable is not a driving factor. This finding strengthens previous studies and provides a new perspective on the dynamics of financial statement fraud in the energy sector, which emphasizes the importance of strengthening governance to mitigate opportunity and rationalization factors as critical elements of fraud triggers.

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