

DETECTING FINANCIAL STATEMENT FRAUD USING FRAUD HEPTAGON THEORY IN MINING

Danny Wibowo

Faculty of Economics and Business, STIESIA, Surabaya, Indonesia

Corresponding Author: dannywibowo@stiesia.ac.id

Abstract: *Financial statement fraud poses a serious challenge to capital markets, particularly within Indonesia's mining industry, which is characterized by complex operations, large-scale investments, and volatile commodity prices. Although numerous fraud detection models have been introduced to identify fraudulent reporting, the application of the Fraud Heptagon Theory—which incorporates pressure, opportunity, rationalisation, competence, arrogance, culture, and religiosity—remains underexplored in the mining context. This study seeks to apply the framework by assessing the influence of these seven dimensions on fraudulent financial reporting among 24 mining firms listed on the Indonesia Stock Exchange between 2019 and 2023, employing the F-Score model to detect potential misreporting. Using a quantitative approach with purposive sampling and multiple regression analysis, the findings reveal that only opportunity significantly affects financial statement fraud, while the remaining six elements show no substantial impact. The model explains 26.1% of the variance in fraudulent activity, suggesting that external factors beyond the fraud heptagon may play a more dominant role in shaping fraudulent practices in the mining sector. Consequently, strengthening internal controls and corporate governance is essential to reducing opportunities for fraud within the industry.*

Keywords: *financial statement fraud, Fraud Heptagon Theory, F-Score, mining companies, Indonesia Stock Exchange*

1. Introduction

Financial statements present information about a company's performance, which investors use to determine its revenue and profits. According to SFAC No. 1, financial reporting should present information that is useful to investors, creditors, and other parties, both current and potential, to help them make rational investment, credit, or other decisions. Fraud often occurs within a company to protect its reputation, increase profits, and achieve other similar objectives. Publicly listed companies are one type of company that is more susceptible to fraudulent financial reporting compared to non-listed companies. This is because companies will always strive to restore and develop their capacity to increase their value. Financial statement fraud poses a serious threat to the credibility of capital markets and investor confidence. With its complex business characteristics, large expenditures, and fluctuations in commodity prices, the mining sector is uniquely positioned to engage in manipulative processes, such as reserve manipulation, fictitious revenue recognition, and inappropriate capitalisation of costs. The Association of Certified Fraud Examiners (2024), "Occupational Fraud 2024: A Report to the Nations," report highlights the fact that the mining sector was the top area with the largest losses from fraud. The median loss per case was USD 550,000. In Indonesia, the lack of strong internal control systems and poor management are factors that increase the risk of fraud. This has been illustrated in the PT Timah Tbk case, where losses have amounted to Rp 271 trillion. This situation is further compounded by the COVID-19 pandemic, which has put tremendous pressure on the economy and company operations. During the pandemic, resource scarcity, pressure to maintain financial performance, and the management of emergency funds and social assistance have created higher opportunities and

incentives for fraud, including in the mining sector. This pressure has prompted some parties to engage in fraudulent practices in order to maintain the company's reputation with its investors and the general public. Various fraud detection models have emerged, ranging from the Fraud Triangle to the Fraud Pentagon, and now the Fraud Heptagon Theory, which adds the aspects of Culture and religiosity. However, using this theory for mining companies in Indonesia, especially during and after the pandemic, is still uncommon. Further investigation is required to gain deeper insight into the factors driving financial statement fraud within this sector.

Drawing from the previously discussed background, this study poses the following research question: Do financial stability, industry characteristics, auditor changes, director turnover, the frequency of CEO photographs, culture, and religiosity affect the occurrence of financial statement fraud in mining companies listed on the Indonesia Stock Exchange during the 2019–2023 period? Accordingly, the objective of this research is to evaluate whether each of these factors—financial stability, industry nature, auditor changes, director changes, frequency of CEO images, culture, and religiosity—significantly affects financial statement fraud within the Indonesian mining sector over the specified timeframe.

2. Literature Review

A growing body of literature in accounting and finance addresses fraud detection in financial reporting. The Fraud Heptagon Theory builds on established models, such as the Fraud Triangle, and examines Pressure, Rationalisation, and Opportunity. (Cressey's, 1953). The development of the Fraud Triangle into the Fraud Pentagon involved the addition of two factors: Competence and Arrogance. Over time, as the complexity of fraud increased, more sophisticated models were developed, such as the Heptagon Theory. Research conducted by Yusof (2016) states that the Fraud Heptagon theory consists of nine elements: Incentive, Pressure, Opportunity, Attitude, Rationalisation, Competence, Arrogance, Ignorance, and Greed. However, this theory was further developed by S. Azizah & Reskino (2023), who simplified and adjusted the Fraud Heptagon into seven variables: Pressure, Opportunity, Rationalisation, Capability, Arrogance, Culture, and Religiosity. There is a concept called motivated ignorance. It describes a situation where someone intentionally chooses to stay unaware because they expect costs or negative effects from the information. In this case, rationalisation is important. This type of ignorance is seen as a rational strategy to avoid emotional discomfort or social responsibility. (Williams, 2021). Therefore, rationalisation becomes the reason for remaining ignorant, which appears logical. Work methods can be designed in many variations, all of which essentially depend on the application of positive and negative incentives, which are often monetary or social in nature. The positive impact on performance is thought to arise because it can increase the cognitive effort of employees (Ličen, 2016). Incentives and pressure are essentially two identical aspects of the control system, both motivating people to exert greater mental effort, either in the hope of receiving rewards or out of fear of negative consequences. Cowan et al (2019) explain that arrogance can be defined as "an unreasonable attitude that shows superiority over others," confirming that arrogance is an unhealthy form of behaviour. This arrogance emerges through a gradual process of one's attitude, starting with limited understanding, then developing into overconfidence, and finally resulting in an unreasonable sense of superiority. This suggests a strong relationship between attitude and arrogance, where arrogance arises from an overestimation of one's own capacity and position compared to others.

Previous research by S. Azizah & Reskino.,(2023) Tested the Heptagon Theory using data from Jakarta auditors. Their study found that arrogance, culture, and religiosity significantly influenced the capacity to detect financial statement fraud, while Pressure, Opportunity, Rationalization, and Competence did not. Furthermore, previous research by (Deka, n.d.). Pointed out the moderating role of internal control systems in the association between Fraud Triangle variables and financial statement fraud. The results showed that internal control systems moderated the influence of rationalization and opportunity on financial statement fraud, but did not exert a moderating effect on the other factors. Based on the latest theoretical developments, this study applies seven Fraud Heptagon variables: Pressure, Opportunity, Rationalisation, Ability, Arrogance, Culture, and Religiosity, as they are considered more relevant to conditions in Indonesia, particularly in the mining sector, which is predominantly located in remote areas. The Heptagon Theory is the most recent theory among other theories and has not been widely applied by researchers related to mining companies in Indonesia. To fill this void, the present study applies the Heptagon Theory to explore financial statement fraud within Indonesia's mining sector between 2019 and 2023.

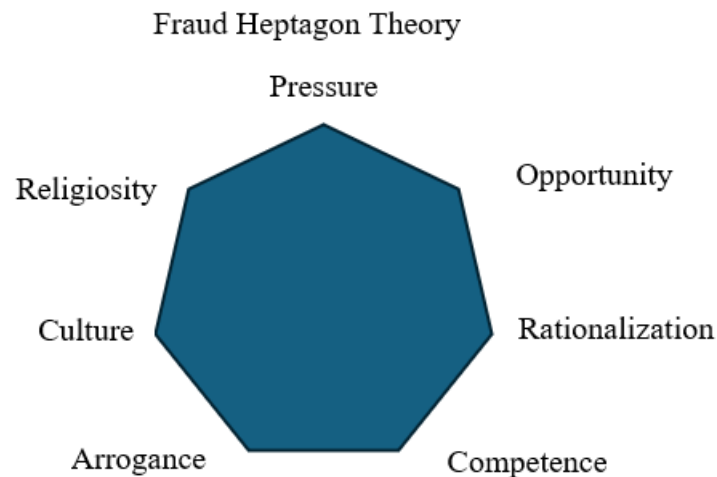


Figure 1: Fraud Heptagon Theory
Sources: Azizah & Reskino, 2023

3. Method

Type of Research

This study adopts a quantitative research method utilizing secondary data to test the proposed hypotheses through statistical analysis. The secondary data were collected from annual and financial reports available on the official website of the Indonesia Stock Exchange (IDX), along with other relevant sources containing information on mining companies for the 2019–2023 period.

Research Object

The study examines mining companies traded on the IDX between 2019 and 2023. This sector is particularly at risk for financial reporting fraud because of its operational complexity, significant investments, and fluctuations in commodity prices.

Sampling Techniques

This study used purposive sampling, where samples are chosen based on specific criteria:

- Mining companies traded on the IDX from 2019 to 2023.
- Companies that conduct exploration activities (not merely mining/transportation, processing, or distribution services).
- Companies that consistently published annual financial reports during the research period.
- Companies that have been established for at least 15 years and are listed on the IDX.

Applying the specified criteria resulted in a sample of 24 companies, yielding a total of 120 observations (24 companies × 5 years).

Hypothesis Development and Operational Definition of Variables

Dependent Variable

The dependent variable is fraud in financial reporting, defined as the deliberate misrepresentation of information or omission of material information, such as overstating revenue, understating costs, or overstating the value of assets (ACFE, 2024). Fraud detection is carried out using the F-Score Model, an extension of the Beneish M-Score, which evaluates two components: Accrual Quality and Financial Performance (Skousen et al., 2009).

F-Score = Accrual Quality + Financial Performance

$$RSST\ Accrual = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{Average\ Total\ Assets}$$

The Accrual Quality variable is proxied by RSST Accrual, with the RSST Accrual formula as follows:

WC	=	(Current Asset – Current Liability)
NCO	=	(Total Assets – Current Assets – Investment and Advances) – (Total Liabilities – Current Liability – Long Term Debt)
FIN	=	(Total Investment – Total Liabilities)
Average Total Assets	=	(Beginning Total Assets + End Total Assets) / 2
Financial Performance	=	Change in receivables + Change in inventories + Change in cash sales + Change in earnings

Description:

$$\text{Change in receivables} = \frac{\Delta \text{Receivables}}{Average\ Total\ Assets}$$

$$\text{Change in inventories} = \frac{\Delta \text{Inventories}}{Average\ Total\ Assets}$$

$$\text{Change in cash sales} = \frac{\Delta \text{Sales}}{\text{Sales}_{(t)}} - \frac{\Delta \text{Receivables}}{\text{Receivables}_{(t)}}$$

$$\text{Change in earnings} = \frac{\text{Earnings}_{(t)}}{Average\ Total\ Assets_{(t)}} - \frac{\text{Earnings}_{(t-1)}}{Average\ Total\ Assets_{(t-1)}}$$

This model was developed to identify potential fraud in financial statement transactions by combining measures of accrual quality and financial effectiveness. Accrual quality factors influence several important factors that significantly affect a company's profits. When accruals are compared to cash, the risk of manipulation increases. The financial efficiency component is elemental, including the overall health of the business, such as profits, sales growth, and key

financial ratios. When companies are less efficient with their financial management practices, they also tend to have less access to financial assets, which makes them less attractive to investors and stakeholders. A higher F-Score suggests a company has favourable traits or characteristics in terms of financial statement manipulation and serves as an initial indicator for detecting potential financial statement fraud. In practice, an F-score of 1 or higher is often seen as a sign of potential manipulation. In other words, if a company has an F-score equal to or greater than 1, it will almost certainly be investigated, and additional analysis will be required to determine whether there are indications of fraud in the financial statements.

Independent Variables

Financial Stability

Financial stability, as defined, describes a scenario in which either a country or the global financial system can operate efficiently and withstand economic pressures or volatility. The global financial system has experienced severe pressures in the past couple of years, including the effect of a global pandemic (COVID-19), inflationary pressures, geopolitical conflict issues, and changes in trading policies. Rudevskia et al.,(2024) argue that financial stability is not only informed by macroeconomic factors, but also in the context of financial innovation and how effective financial regulators' guidance and rules are. It is very important that when financial innovation happens, regulators respond with appropriate rules to prevent new risks and instability from disrupting the existing financial system. This study estimates financial stability within a simulation of corporate stability in relation to ACHANGE. (Cressey's, 1953)

$$\text{ACHANGE} = \frac{\text{Total assets}_t - \text{Total assets}_{t-1}}{\text{Total assets}_{t-1}}$$

H1: Financial stability influences the occurrence of fraud in financial statements.

Nature of Industry

The nature of an industry reflects its best circumstances. This situation is closely related to financial statements that require subjective assessments, such as debt and inventory, which can provide opportunities to manipulate financial statements.(Hutagalung et al., 2024). This ratio reflects the level of risk and Opportunity in the industry related to the possibility of financial statement fraud. (Cressey's, 1953)

$$\text{RECEIVABLE} = \frac{\text{Accounts Receivable}_t}{\text{Sales}_t} - \frac{\text{Accounts Receivable}_{t-1}}{\text{Sales}_{t-1}}$$

H2: The Nature of the industry influences the occurrence of fraud in financial statements.

Change in Auditor

Change in Auditor refers to a situation where a company replaces the Public Accounting Firm (PAF) or auditor that previously audited its financial statements. A change in auditor gives management a chance to influence the new auditor based on the previous auditor's findings. This could allow for the concealment of ongoing fraud, since the new auditor needs time to grasp the business and its environment. However, according to research conducted by Wicaksono & Suryandari., (2021) and Yanto.,(2023), A Change in auditor is stated not to affect fraudulent financial reporting. The Change of auditor is evaluated using a dummy variable, where "1" indicates that there has been a change of auditor and "0" indicates that there has been no change of auditor in the company. (L. Azizah et al., 2025)

H3: Change in Auditor influences the Occurrence of Fraud in Financial Statements

Change of Directors

Competence involves the ability or capacity to take action. Several studies show that changes in management greatly increase the chance of fraud in financial statements. The more often these changes happen, the more likely financial statement manipulation is to occur. However, previous researchers have argued that changes in directorship can be made to obtain more competent and experienced directors and to improve company performance. (Apriwenni et al., 2023). According to Mileniawati & Triyono (2022), changes in board composition are measured using a dummy variable, coded as “1” when a change occurs within a year—such as through resignation, new appointments, or position rotations—and “0” when no changes in board membership take place.

H4: Change of Directors influences the Occurrence of Fraud in Financial Statements

Frequent Number of CEO's Pictures

The number of times a CEO's photo is featured in annual reports can indicate arrogance. Indicates a desire to showcase oneself and one's authority within the company. (Yanto, 2023). According to Azizah & Reskino, (2023), the CEO's political ties to third parties can lead to financial statement fraud. This relationship gives the CEO a sense of security from rules and ethical standards because of their position and status. As a result, it can create an arrogant attitude that promotes fraudulent behaviour.

H5: The Frequent Number of CEO's pictures influences the occurrence of Fraud in Financial Statements

Culture

According to Reskino's Heptagon Fraud Theory (2022), organisational culture consists of the values that guide behaviour within an organisation. A good culture encourages employees to act ethically and follow positive norms. A strong culture that emphasises transparency, accountability, and integrity promotes reliable financial reporting, lowers the risk of manipulation, and improves work ethics, along with the effectiveness of internal controls. (Adib et al., 2024). According to Haniffa & Hudaib (2007), the Ethical Identity Index (EII) was developed as a disclosure tool to measure organisational culture through annual reports, with four indicators: vision and mission, corporate values, employee commitment and development, and CSR activities.

$$\text{Culture Index} = \frac{\sum \text{Item diungkap}}{\text{Total Item}}$$

H6: Culture influences the occurrence of fraud in financial statements

Religiosity

Religiosity reflects a person's faith, guiding their conduct in avoiding fraud. Individuals with high religiosity tend to avoid fraud because they believe in the moral and spiritual consequences of every action. Research reveals that high levels of religiosity are associated

with a lower risk of fraud in financial reporting. (Nafiati & Ainy, 2022). Religiosity is measured with a dummy variable. It gets a value of “1” if the annual report includes religious activities or principles like zakat programs, religious donations, Sharia Supervisory Boards, or commitments to Sharia ethics and compliance. It receives a value of “0” if such information is not present.

H7: Religiosity influences the occurrence of fraud in financial statements

4. Result and Discussion

Descriptive Statistical Analysis

According to Muchson.,(2017) Descriptive statistics is an approach that discusses how to collect, summarise, and present data so that the information produced is easier to understand. The main goal of this task is to outline the features of the gathered data without inferring conclusions or generalising about the broader population.

Table 1. Analisis Statistik Deskriptif

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PRESSURE	120	.69	1.03	.8290	.08523
OPPORTUNITY	120	.69	.80	.7507	.02376
RATIONALIZATION	120	.00	1.00	.0333	.18026
COMPETENCE	120	.00	1.00	.4750	.50147
ARROGANCE	120	.69	1.79	1.2585	.27057
CULTURE	120	.50	1.00	.9417	.14758
RELIGIOSITY	120	.00	1.00	.9000	.30126
KLK	120	.69	1.31	.9602	.16935
Valid N (listwise)	120				

Source: Data processed by SPSS, 2025

Based on descriptive analysis, the Pressure variable has a high average value (0.8290) with slight variation, while Opportunity is at a low level (0.7507) with minimal variation. Rationalization shows a very low level (0.0333) and low variation, while Competence is at a moderate level (0.4750) with high variation. Arrogance is relatively high (1.2585), and Culture is rated high (0.9417) by respondents. Religiosity remains elevated (0.9000), although there is some moderate fluctuation. The dependent variable KLK averages 0.9602, suggesting that the extent of financial statement fraud falls within the mild to high range.

Normality Test

The normality test examines whether the standardised residuals in the regression model conform to a normal distribution, indicating that the data come from a normal population. (Sihabudin et al., 2021).

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		120
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.14124279
Most Extreme Differences	Absolute	.080
	Positive	.080
	Negative	-.060
Test Statistic		.080
Asymp. Sig. (2-tailed) ^c		.054

Source: Data processed by SPSS, 2025

The significance level (Asymp. Sig. 2-tailed) is 0.054. A dataset is considered normally distributed when the significance value exceeds 0.05. Since 0.054 is greater than 0.05, the residuals in this regression model can be concluded to follow a normal distribution.

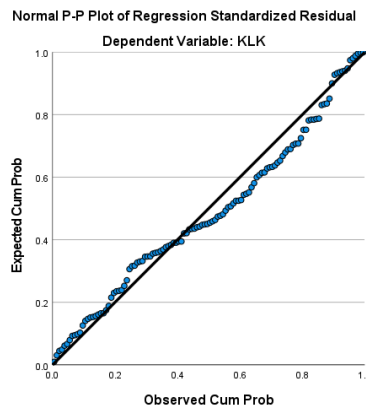


Figure 2: Normal P-plot Graph

Sources: Data processed by SPSS, 2025

This pattern indicates that the distribution of residuals is nearly normal, as the data points line up along a diagonal line that represents a normal distribution. As a result, the results shown in the P-P Plot graph match those of the Kolmogorov-Smirnov test. This further confirms that the residual data in the regression model display a normal distribution.

Multicollinearity Test

Multicollinearity means a perfect linear relationship among several or all independent variables. (Kuncoro, 2007). The multicollinearity test examines whether correlations exist

among the independent variables in the regression model. When such correlations are present, the variables are no longer orthogonal.

Table 3. Multicollinearity Test Results

Coefficients^a			
Collinearity Statistics			
	Model	Tolerance	VIF
1	(Constant)		
	PRESSURE	.907	1.102
	OPPORTUNITY	.958	1.044
	RATIONALIZATION	.953	1.049
	COMPETENCE	.913	1.096
	ARROGANCE	.818	1.223
	CULTURE	.779	1.284
	RELIGIOSITY	.916	1.092

a. Dependent Variable: KLK

Source: Data processed by SPSS, 2025

The multicollinearity test results indicate that all variables have VIF values below 10 and tolerance levels above 0.10, suggesting the absence of multicollinearity. Therefore, the regression assumption concerning the independence of relationships among independent variables is satisfied.

Autocorrelation Test

Autocorrelation is assessed using the Durbin–Watson statistic, where the obtained value is compared against the acceptable Durbin–Watson range (Sihabudin et al., 2021)

Table 4. Autocorrelation Test Results

Model Summary^b					
Model	R	R Square	Adjusted Square	RStd. Error of the Estimate	Durbin-Watson
1	.552 ^a	.304	.261	.14559	2.060

Source: Data processed by SPSS, 2025

The autocorrelation test results indicate that the model is free from autocorrelation. This conclusion is supported by the Durbin–Watson statistic, which confirms the absence of autocorrelation when it falls within the range $dU < DW < 4 - dU$. In this study, the obtained values were $1.8270 < 2.060 < 2.173$, thereby meeting the criterion.

Heteroscedasticity Test

In regression analysis, heteroscedasticity occurs when variable variances are unequal, while constant variance is referred to as homoscedasticity (Suliyanto, 2011). In this research, the heteroscedasticity assessment utilises the Glejser test, which involves regressing each independent variable against the absolute value of the residuals.

Tabel 1 Heteroscedasticity Test Results

Model	<u>Coefficients^a</u>				
	Unstandardized		Standardized	t	Sig.
	Coefficients				
	B	Std. Error	Beta		
(Constant)	-.139	.288		-.483	.630
PRESSURE	.088	.107	.080	.824	.412
OPPORTUNITY	.375	.374	.094	1.003	.318
RATIONALIZATION	.003	.049	.006	.065	.948
COMPETENCE	-.012	.018	-.065	-.675	.501
ARROGANCE	-.012	.036	-.035	-.347	.729
CULTURE	-.106	.067	-.166	-1.593	.114
RELIGIOSITY	.011	.030	.036	.371	.711

Source: Data processed by SPSS, 2025

The Glejser test results reveal significance values above 0.05 for all independent variables, confirming that the model is free from heteroscedasticity and that the residuals display constant variance in line with classical regression assumptions.

Multiple Linear Regression Analysis

Multiple regression is used to study how a dependent variable relates to multiple independent variables simultaneously. This method provides insights into how various factors collectively influence a condition, offering a broader perspective on cause-and-effect dynamics. In the fields of economics and business, multiple regression plays a vital role in decision-making, as outcomes are typically shaped by several determinants at once (Suliyanto, 2011).

Table 6. Multiple Linear Regression Test Results

Model	Coefficients^a				
	Unstandardized		Standardized		
	Coefficients		Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.816	.442		8.642	.000
PRESSURE	.194	.164	.098	1.182	.240
OPPORTUNITY	-3.816	.574	-.535	-6.648	.000
RATIONALIZATION	.027	.076	.029	.359	.720
COMPETENCE	-.002	.028	-.005	-.059	.953
ARROGANCE	-.035	.055	-.056	-.641	.523
CULTURE	-.099	.102	-.086	-.962	.338
RELIGIOSITY	-.018	.046	-.031	-.382	.703

Source: Data processed by SPSS, 2025

From the table above, the regression equation model in this research is as follows:

$$KLK = 3.816 + 0.194(PRESSURE) - 3.816(OPPORTUNITY) + 0.027(RATIONALIZATION) - 0.002(COMPETENCE) - 0.035(ARROGANCE) - 0.099(CULTURE) - 0.018(RELIGIOSITY) + e$$

Model Feasibility Test (F Test)

The F-test determines if independent variables jointly influence the dependent variable. If the p-value is less than 0.05, H₀ is rejected, and the model is considered valid. (Kuncoro, 2007).

Table 7. Model Feasibility Test Results

ANOVA^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.039	7	.148	7.002	.000 ^b
Residual	2.374	112	.021		
Total	3.413	119			

Source: Data processed by SPSS, 2025

The ANOVA test result of $0.000 < 0.05$ confirms the model's validity and shows that the independent variables collectively influence Financial Statement Fraud (FSF).

Testing the Coefficient of Determination (R^2)

R^2 shows how much of the dependent variable's variance is explained by the model's independent variables, ranging from 0 to 1, where higher values denote stronger explanatory ability. (Firdaus, 2004).

Table 8. Results of the Determination Coefficient Test

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552 ^a	.304	.261	.14559

Source: Data processed by SPSS, 2025

Table 8 shows that seven independent variables contribute 26.1% to Financial Statement Fraud, while 73.9% is driven by external factors.

Hypothesis Testing (t-test)

The t-test assesses the specific impact of each independent variable on the dependent variable, with a p-value less than 0.05 signifying statistical significance. This analysis is crucial for determining which variables substantially contribute to the model, thereby assisting in the identification of key predictors for building an effective regression framework. (Kuncoro, 2007)

Table 9. Hypothesis Test Results

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.816	.442		8.642	.000
PRESSURE	.194	.164	.098	1.182	.240
OPPORTUNITY	-3.816	.574	-.535	-6.648	.000
RATIONALIZATION	.027	.076	.029	.359	.720
COMPETENCE	-.002	.028	-.005	-.059	.953
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CULTURE	-.099	.102	-.086	-.962	.338
RELIGIOSITY	-.018	.046	-.031	-.382	.703

Source: Data processed by SPSS, 2025

The results of the t-test indicate that only the Opportunity variable exerts a significant influence on Financial Statement Fraud (FSF). Conversely, Pressure, Rationalization, Competence, Arrogance, Culture, and Religiosity show no statistically significant effect.

5. Conclusions

The research focuses on financial statement fraud in IDX-listed mining companies during the 2019–2023 period, using the Heptagon Theory of Fraud as its theoretical foundation. Expanding on earlier frameworks, the model incorporates seven dimensions: Pressure, Opportunity, Rationalisation, Competence, Arrogance, Culture, and Religion. The results of

multiple linear regression analysis reveal that, of these factors, only Opportunity has a significant effect on financial performance.

In contrast, the remaining six factors—Pressure, Rationalization, Competence, Arrogance, Culture, and Religion—were found to have no significant effect. Overall, the regression model is deemed valid, as evidenced by an F-test significance value of 0.000 (< 0.05). Nevertheless, the coefficient of determination indicates that the model accounts for only 26.1% of the variation in financial statement fraud, leaving 73.9% attributable to influences beyond the proposed framework.

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