

Fraud Diamond Model In Detecting Financial Statement Fraud

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Abstract: Financial reports provide very important information, which motivates management to present good company performance information. However, management is not always able to make this happen, which causes management to commit fraud in making financial reports. Management commits fraud to improve their welfare which is usually given in the form of bonuses when management reaches the target set by the owner (shareholder). The purpose of this research is to empirically prove the effect of the fraud diamond on financial statement fraud. The variables in this study are financial statement fraud as the dependent variable and the independent variable, namely pressure (X1) which is proxied by financial personal need, opportunity (X2) which is proxied by effective monitoring, rationalization (X3) which is proxied by the change in auditor, and capability (X4) which is proxied by change in the board of directors. This research was conducted at coal mining companies listed on the Indonesia Stock Exchange in 2017-2019. Data analysis using multiple linear regression. The conclusion from the results of data analysis is that the variables pressure (X1) and opportunity (X2) have a significant positive effect on financial statement fraud, while rationalization (X3) and capability (X4) do not have a significant effect on financial statement fraud.

Keywords: change in auditor, financial personal need, financial statement, fraud, ineffective monitoring, change in the board of directors

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I. Introduction

The financial report is a structured presentation of the financial position and financial performance of an entity, which provides information about the financial position, financial performance, and cash flow of the entity that is useful for most users of the report in making economic decisions. Realizing the importance of the information presented in financial reports, management is motivated to present good company performance information. However, management cannot always make this happen, which is what makes management cheating in making financial reports. There are several names of large companies that have been dragged into cases of fraud, one of which is Enron, a company engaged in the energy sector with Arthur Andersen's Public Accounting Firm. In 2002 it was revealed that Enron's management misstated the financial statements by recording the company's profit of USD 586,000,000 when the company lost so as not to lose investors, but in the end, the company went bankrupt because of the accumulated debt (Albrecht et al, 2011: 358).

Likewise with the domestic case that dragged the mining company PT Bumi Resources Tbk., in 2010 Indonesia Corruption Watch (ICW) reported the alleged manipulation of the sales volume of the mining company belonging to the Bakrie Group to the Directorate General of Taxes. ICW suspects that the engineering reporting carried out by PT Bumi Resources Tbk., and its subsidiaries from 2003-2008 caused state losses of US \$ 620.49 million. The results of ICW calculations using various primary data including audited financial reports show that Bumi's sales report during 2003-2008 was US\$ 1.06 billion lower than it was. The financial statement fraud is estimated to result in state losses from a shortage of coal production proceeds (royalties) of US \$ 143.18 million. Meanwhile, state losses from underpayment of taxes reached US \$ 477.29 million (Tempo, 15 February 2010).

Several factors encourage a person to commit cheating. Wolfe and Hermanson (2004), put forward a new theory of "Fraud Diamond Model", this theory is a development of the "Fraud Triangle Model" proposed by Cressey (1950), wherein addition to pressure, opportunity, and rationalization, there are other factors that cause fraud, namely capability.

Fraud itself occurs because of a conflict of interest between an agent and a principal known as agency theory. The management of the company is the agent and the owner or shareholder is the principal party. Management commits fraud to improve their welfare which is usually given in the form of bonuses when management reaches the target set by the owner (shareholder). Supported by the existence of information asymmetry, namely the difference in the information that is owned by the two parties. Management has more information compared to the owner because management is running the business and preparing financial reports, so that management has an opportunity to commit fraud.

II. Literature Review

2.1. Agency Theory

Agency theory according to Jensen and Meckling (1976), is a theory that explains the relationship between the agent (mandated party) and the principal (the party who provides the mandate), wherein this study management acts as an agent, and the owner (shareholder) is the principal. According to this theory, there are different interests in the relationship between agent and principal which can lead to a conflict of interest. The principal wants to get a big profit from his business that is run by the agent, but on the other hand, the agent also has an interest in improving his welfare. This is what triggers the agency problem so that the agent will try to fulfill the principal's wishes but can also make himself prosperous.

Management makes use of information asymmetry, which is the difference in information possessed by the agent and the principal. The agent party has more information about the company than the principal because the agent carries out the business and compiles the performance reporting against the principal. Management uses this information asymmetry to manipulate financial reports which will harm the quality of the financial reports submitted.

Based on this theory, when the company's condition is not good, the management will try to make the company look good because of a conflict of interest in their relationship, so that management takes steps to attract the attention of shareholders and investors, one of which is by manipulating financial statements, which is the act of financial statement fraud. This is done by the management in resolving the conflict of interest between the agent and the principal because incorrect or misleading information resulting from the manipulation of financial statements can lead to errors in decision-making by users of financial statements.

2.2. Fraud Diamond Theory

Fraud diamond theory is a development of its predecessor theory, namely the fraud triangle theory put forward by Cressey (1950) which concludes that there are three causes of fraud, namely pressure, opportunity, and rationalization. In 2004 Wolfe and Hermanson put forward a new theory called the fraud diamond theory, where there is one more cause of fraud besides what has been mentioned in the fraud triangle theory, namely the capability where fraud will not occur without the right people with the right abilities. In carrying out every detail of the fraud. Opportunity opens the door to fraud, pressure, and rationalization can pull a person through it, but only people with the capability can recognize that there is an open door and the opportunity to take advantage of it, not once, but many times.

Based on this theory, the existence of a conflict of interest between the agent and the principal makes management as the agent's face a lot of pressure to achieve the target set by the principal. When there is an opportunity, management will take advantage of it to commit fraud, one of which is by conducting financial statement fraud and rationalizing its actions. This fraud will not occur if it is not supported by management's capability in committing fraud. Therefore, by using the analysis of the fraud diamond the company is expected to be able to detect financial statement fraud.

2.3. Fraud

According to the Association of Certified Fraud Examiners (ACFE), the definition of fraud is: "Acts that are against the law committed intentionally for a specific purpose (manipulation or misrepresentation of other parties) are carried out by people from within or outside the organization to gain profit. Individuals or groups that directly or indirectly harm other parties". According to Albrecht et al. (2011: 6) "Fraud is a generic term and embraces all the multifarious means which human ingenuity can devise, which are resorted to by one individual, to get an advantage over another by false representations. No definite and invariable rule can be laid down as a general proposition in defining fraud, as it includes surprise, trickery, cunning, and unfair ways by which another is cheated. The only boundaries defining it are those which limit human knavery".

According to Albrecht et al. (2011: 7), fraud consists of several important elements, namely: (a) representation; (b) concerning material matters (about a material point); (c) something was wrong (which is false); (d) done intentionally or carelessly (intentionally or recklessly so); (e) something that is believed (which is believed); (f) performed on the victim (acted upon by the victim); (g) for the victim's damage.

2.4. Financial Statement Fraud

Financial statement fraud is a form of fraud committed by negligence in preparing financial reports, thereby misleading users of financial statements. According to ACFE (Rezaee, 2002) financial statement fraud is "Intentionally causing misstatements, or omitting material information, or misleading accounting data, which when considered with all the information presented can make users change their decisions". The symptoms of financial statement fraud according to Albrecht (2011: 137) are (1) accounting anomaly, (2) internal weakness, (3) analysis anomaly, (4) excessive lifestyle, (5) unusual behavior, (6) complaints.

This study measures financial statement fraud using the fraud score model proposed by Dechow et al (2012). F-score is the sum of accrual quality and financial performance which is considered capable of predicting the occurrence of financial statement fraud (Skousen and Twedt, 2009). Accrual quality is proxied by accrual RSST and financial performance is proxied by changes in accounts receivable, inventory, cash sales, and changes in EBIT (Earning Before Interest and Tax).

2.5. Conceptual Framework and Research Hypotheses

Based on the theoretical study, a research conceptual framework was developed as shown in Figure 1.

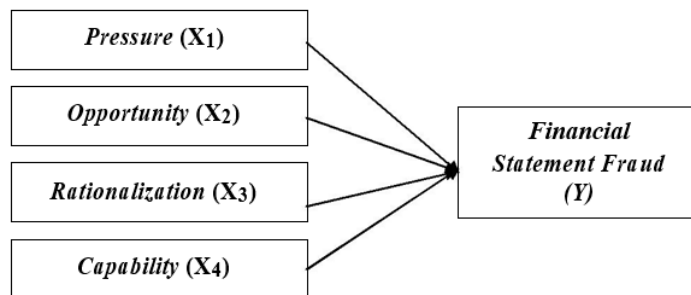


Figure 1: Research Concept Framework

Referring to the research concept framework, the research hypothesis is as follows:

- Hypothesis 1: Pressure has a positive effect on financial statement fraud
- Hypothesis 2: Opportunity has a positive effect on financial statement fraud
- Hypothesis 3: Rationalization has a positive effect on financial statement fraud
- Hypothesis 4: Capability has a positive effect on financial statement fraud

III. Research Method

3.1. Research Site

This research was conducted on the Indonesia Stock Exchange website or www.idx.co.id and on the company's website. The objects of this research are pressure, opportunity, rationalization, capability, and financial statement fraud, the information of which is taken from the financial statements of coal mining companies listed on the Indonesia Stock Exchange 2017-2019.

3.2. Population and Sample Research

The population of this study is the coal mining sector companies listed on the Indonesia Stock Exchange in 2017-2019, namely 22 companies. The method of determining the research sample is purposive sampling, which is a sampling technique with predetermined criteria to obtain a representative sample. Based on these criteria, 18 companies were used as research samples, so that the number of observations (N) for 3 years was 54.

3.3. Data Analysis

This study uses multiple linear regression data analysis techniques to determine the effect of independent variables, in this case, pressure is proxied by personal financial need (X1), opportunity is proxied by effective monitoring (X2), rationalization is proxied by change in auditor (X3) and capability which is proxied by changes in the board of directors (X4) on the dependent variable with the following equation:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e.$$

IV. RESULT AND DISCUSSION

4.1. Results of Data Analysis

1. Classical Assumption Test Results

Table 1. Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Pressure	.961	1,041
Opportunity	.979	1,022
Rationalization	.954	1,048

Capability	,940	1,064
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Source: Data processed, 2021

Based on Table 1, the results of the calculation of the Tolerance value show that there are no independent variables that have a tolerance value less than 0.10 and have a VIF value of more than 10. So, it can be concluded that there is no multicollinearity between the independent variables in the regression model.

Table 2. Autocorrelation Test Results
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,608 ^a	,370	,318	,376935	2,160

a. Predictors: (Constant), Capability, Opportunity, Pressure, Rationality
b. Dependent Variable: Financial Statement Fraud

Source: Data processed, 2021

Based on the results of the autocorrelation test, the Durbin-Watson value was 2.160. In this study, 4 independent variables were used with 54 research data with a significance value of 5%. The decision making whether there is autocorrelation is to compare the results of the Durbin-Watson test with the du and dl values in the Durbin-Watson value table. Based on this information, it is known that the value of du is 1.724. Because the Durbin-Watson (2,160) value lies between du (1,727) and 4-du (2,276), it can be concluded that there is no autocorrelation.

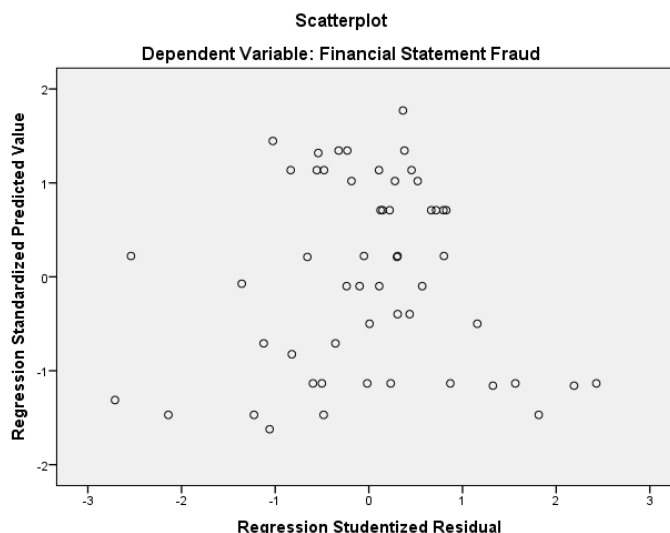


Figure 2. Heteroscedasticity Test Results

Source: Data processed, 2021

From the scatterplot graph, it can be seen that the dots spread randomly and are spread both above and below the number 0 on the Y-axis. This can be concluded that there is no heteroscedasticity in the regression model.

Table 3. Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		54
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	,36243187
Most Extreme Differences	Absolute	,080
	Positive	,078
	Negative	-,080
Test Statistic		,080
Asymp. Sig. (2-tailed)		,200 ^{c,d}

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.
Source: Data processed, 2021

Based on Table 3, it can be seen that the Asymp.Sig. is 0.200 which is greater than the significance value of 0.05, it can be concluded that the residual data is normally distributed.

2. Multiple Linear Regression Test Results

Table 4. F Test Results
ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4,085	4	1,021	7,188	,000 ^b
	Residual	6,962	49	,142		
	Total	11,047	53			

a. Dependent Variable: Financial Statement Fraud
b. Predictors: (Constant), Capability, Opportunity, Pressure, Rationalization

Source: Data processed, 2021

Based on the table above, it can be seen that the significance value of F is 0.000, which is smaller than the alpha value of 0.05. Thus, it can be concluded that the regression model is fit with observational data so that it is suitable for use as an analysis tool to test the effect of independent variables on the dependent variable.

Table 5. Determination Test Results
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,608 ^a	,370	,318	,376935	2,160

a. Predictors: (Constant), Capability, Opportunity, Pressure, Rationalization
b. Dependent Variable: Financial Statement Fraud

Source: Data processed, 2021

From Table 5 above, it is known that the adjusted R Square value is 0.318, this shows that 31.8% of Fraud Financial Statement variations can be explained by variations of the four independent variables Pressure, Opportunity, Rationality, and Capability. While the remaining 68.2% is explained by reasons other than the model.

Table 6. Multiple Linear Regression Test Results
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,123	,273		-,451	,654
	Pressure	,512	,105	,564	4,879	,000
	Opportunity	,691	,727	,266	2,325	,024
	Rationalization	,176	,156	,131	1,128	,265
	Capability	,086	,127	,079	,678	,501

a. Dependent Variable: Financial Statement Fraud
Source: Data processed, 2021

Based on Table 6 above, the regression equation can be drawn up, as follows.

$$Y = -0,123 + 0,512X_1 + 0,691X_2 + 0,176X_3 + 0,086X_4$$

Which:

Y = Financial Statement Fraud (F Score)

X₁ = Pressure

X₂ = Opportunity

X₃ = Rationalization

X₄ = Capability

From the regression equation, it can be explained that the constant value is -0.123, stating that if the independent variable is considered constant, then the Fraud Financial Statement (F Score) value is -0.123. The variable coefficient X1 (Pressure) is 0.512, meaning that if the pressure increases it will result in an increase in the Fraud Financial Statement (F Score) value of 0.512. The coefficient of variable X2 (Opportunity) is 0.691, meaning that if Opportunity increases, there will be an increase in the value of the Fraud Financial Statement (F Score) of 0.691. The coefficient of variable X3 (Rationalization) is 0.176, meaning that if the rationalization

increases it will increase the value of the Fraud Financial Statement (F Score) by 0.176. The coefficient of variable X4 (Capability) is 0.086, meaning that if Capability increases, it will result in an increase in the value of the Fraud Financial Statement (F Score) by 0.086.

Based on the results of the analysis in Table 6, it can be explained that the significance value of the Pressure variable is 0.000 smaller than the α (0.05), meaning that the Pressure variable has a significant effect on the Fraud Financial Statement variable, so it can be concluded that the first hypothesis is accepted. According to Shelton (2014), pressure is a person's motivation to commit cheating. In this study, pressure is proxied by personal financial needs. According to Skousen et al (2009) personal financial need is a condition when the company's finances are influenced by the financial condition of the company's executives. When company executives have a strong financial role in the company, the personal financial needs of the company executives are also affected by the company's financial performance (Beasley, 1996). According to No. SAS 99, personal financial need is caused by several things, namely significant financial interests in the entity, a significant part of their compensation depending on the achievement of company targets, and the existence of personal guarantees for the entity's debt. Company executives who own a portion of the company's shares or have a strong financial interest in the entity can influence management's policy in disclosing its financial performance. This is because company executives who have personal financial needs will feel threatened by the company's financial performance. They will pressure the management because they feel they have the right to claim the company's income and assets. This pressure can encourage management to commit fraud so that the personal financial needs of company executives are met.

The significance value of the Opportunity variable is 0.024 which is smaller than the value of α (0.05), which means that the Opportunity variable has a significant effect on the Fraud Financial Statement variable, so it can be concluded that the second hypothesis is accepted. Opportunity is a condition that allows for fraud. In this study, opportunity is proxied by effective monitoring. SAS No.99 states that one of the opportunities for fraud in financial reporting is the occurrence of ineffective monitoring. Ineffective monitoring is a situation where the company does not have sufficient supervision to monitor the company's performance so that it provides an opportunity for management to commit fraud. Factors that lead to opportunities for fraud stemming from ineffective monitoring relate to the ineffective supervision and internal control of the company. Therefore, it requires supervision from an independent external company such as an independent board of commissioners to prevent opportunities for management to commit fraud. The number of independent boards of commissioners in a company can reflect how effective company supervision is to prevent financial statement fraud. The board of commissioners is tasked with ensuring the implementation of the company's strategy, supervising management in managing the company, and obliging the implementation of accountability (Forum for Corporate Governance in Indonesia, 2003). According to Beasley (1996), the inclusion of a board of commissioners from outside the company increases the effectiveness of the board in supervising management to prevent financial statement fraud.

The significance value of the Rationalization variable is 0.265 which is greater than the value of α (0.05), meaning that the Rationalization variable does not have a significant effect on the Fraud Financial Statement variable, so it can be concluded that the third hypothesis is rejected. Rationalization is a personal reason used to justify an action even though it is wrong (Albrecht et al, 2011: 50). Rationalization can make someone who initially does not want to commit fraud end up doing it because the perpetrator feels that his actions are right. Perpetrators will rationalize their actions before committing fraud, they justify their actions as ethical so that fraud can occur. In addition, fraud perpetrators will look for ways or reasons to justify their actions, one of which is by removing evidence or traces of the fraud they committed. Change in auditor is one of the rationalization efforts made by companies to eliminate traces of financial statement fraud (Lou & Wang, 2009). According to Stice (1991), St. Pierre & Anderson (1984), and Loebbecke et al., (1989) found that the incidence of audit failure and litigation increased immediately after the change of auditors. Loebbecke et al., (1989) found that a large number of frauds in their sample were committed within the first two years of the auditor's tenure so that the change in auditors of a company within two years could be an indication of fraud, as stated in the Statement on Auditing Standards (SAS) No. 99, because the old auditors know more about the condition of the company so they are more likely to detect financial statement fraud than the new auditors. However, in this study, empirical evidence is obtained that the existence of a change in auditors from the sample companies does not significantly detect the occurrence of fraudulent financial reporting. Because the auditor who carries out the audit is an auditor who will always maintain a professional attitude, carry out the audit carefully and independently, even though it is the first engagement, so that during the time the audit engagement is carried out, it can also detect fraud, so fraud is detected, it cannot be determined by whether The audit is carried out in the first engagement or ongoing engagement.

The significance value of the variable Capability is 0.501 which is greater than the value of α (0.05), meaning that the Capability variable does not have a significant effect on the Fraud Financial Statement variable, so it can be concluded that the fourth hypothesis is rejected. Wolfe & Hermanson (2004) state that

capability is one of the causes of fraud because fraud will not occur without the right person with the right ability to carry out every detail of fraud. The position of the board of directors can commit fraud. Directors are considered to have the ability to commit fraud because they know the gaps in the company and are good at seeing opportunities in certain functions that have the potential for fraud. The Board of Directors has control and authority within the company, as well as the ability to influence subordinates, including influence in systems, processes, company data, making operational decisions, and choosing accounting policies in the process of making company financial statements.

Change of board directors is a transfer of authority from the old directors to the new directors to improve the performance of the previous directors. Besides being able to be used to improve company performance, change of directors can also be used as a tool to get rid of old directors who know fraud in the company. Changing the board of directors is also considered to reduce effectiveness in performance because it requires more time to adapt to the culture of the new directors, which creates a stress period that opens up opportunities for fraud (Brennan & McGrath, 2007).

In this study, the results show that the change of directors is not proven to significantly affect the detection of fraudulent financial reporting, this is because the change of directors does not affect the effectiveness of the performance of the new directors. After all, the changes are adjusted to the needs of the company and are carried out carefully and professionally. In this study, it is also known that very few companies have made changes of directors during the year of observation, for example, there were only two companies that made changes of directors in three years, one company changed directors in 2018, and in 2019, two companies made changes of directors only. in 2018 and two companies that changed directors only in 2019, so that the change of company directors could not show a significant effect on the detection of fraudulent financial reporting.

IV. Conclusions

Based on the results of the discussion as stated, it can be concluded as follows:

1. The coefficient value of the pressure variable is positive 0.512 with a significance value of $0.000 < 0.05$ and the opportunity variable is positive 0.691 with a significance value of $0.024 < 0.05$, it can be concluded that the pressure and opportunity variables have a significant positive effect on the variable financial statement fraud.
2. The coefficient value of the rationalization variable is positive 0.176 with a significance value of $0.265 > 0.05$ and the capability variable is positive 0.086 with a significance value of $0.501 > 0.05$, it can be concluded that the rationalization and capability variables have no significant effect on the variable financial statement fraud.

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