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Analysis of Financial Statement Fraud in the Perspective of Fraud Triangle Theory in Energy Companies

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ABSTRACT

This research aims to determine good corporate governance and ineffective monitoring of the condition of financial reports. This research uses a quantitative approach with a sample of 33 companies listed on the Indonesia Stock Exchange (IDX) for the period 2020 - 2022. This research investigates the relationship between the independent variable and the dependent variable by analyzing data from energy sector companies. This method uses multiple linear analysis techniques. The research results show that managerial ownership has a significant impact on the condition of financial statements. In line with the fraud triangle theory, which states that high management ownership can increase pressure to achieve financial goals and provide an opportunity to do so. Financial statement fraud is not influenced by institutional ownership and ineffective monitoring. These findings suggest that the effects of institutional ownership and ineffective monitoring may not be easy to predict. Further research is needed to understand the complexity of the components that contribute to the condition of financial statements.

Keywords: Good Corporate Governance; Ineffective Monitoring; Financial Fraud Report; Fraud Triangle Theory

1. Introduction

Financial statements are records of financial activity data, business positions or entities to explain the overall performance of the company. Financial statement information must be relevant or reasonable, presented in a structured form that is easy to understand. In financial statements, profit information is potential information for financial statement users in assessing management performance. And the information presented in the financial statements will be more useful if it can be compared to other companies (1). The general purpose of financial statements is to present information about the financial position, budget realization, cash flow and financial performance of a reporting entity. Financial reporting is beneficial to most users of the report in order to make economic decisions and show management accountability for the use of the resources entrusted to them (2).

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The rapid development of business and fierce business competition make some business people not present information about the company's financial statements in a relevant and reasonable manner. This happens because companies compete to display the condition of the company's financial statements in good condition so that investors are interested in investing in the company, so that management tends to do everything possible to display the financial statements in the best possible condition, including fraud, namely by embezzling data or manipulating data. The company that is wary of fraud in August 2023 is PT Perusahaan Gas Negara (Persero) Tbk or PGN in supplying natural gas. The estuary of irregularities caused the financial performance of Pertamina's subsidiary to be unhealthy. In its operations until 2022, PGN's revenue only reached US$3,569 million, while the value of its liabilities was greater at US$3,753 million. There are at least three projects that actually bring losses to PGN. Starting from the acquisition project of three oil and gas blocks that are too expensive, losses in the floating storage regasification unit or FSRU in Lampung and the collapse of the liquefied natural gas terminal in Teluk Lamong Surabaya. The loss-making projects are findings from the Financial Audit Board. The state auditor suspects that there is fraud or irregularities in the use of the budget for a number of projects, which leads to state financial losses. The results of the BPK compliance audit on the management of revenue, costs and investments for 2017 – 2022 PGN published in April 2023 showed that there were findings. However, the significant potential for fraud lies in the three projects (https://pwypindonesia.org/id).

Financial statement fraud is the deliberate act of altering an organization's financial information with the aim of gaining the benefit of a particular individual or group. This action can harm various parties, such as investors, creditors, and the government, but it can also benefit other individuals (3). However, in reality, financial statements become a very easy loophole for business management to cheat if they cannot achieve their goals (4). According to the Association of Certified Fraud Examiners (ACFE 2020), financial statement fraud also known as management fraud or financial statement fraud, is defined as fraud committed by management in the form of incorrect financial statements that harm investors and creditors. Much research has been done on financial statement fraud, but few have concentrated on its application in the energy business. The current research does not examine the dynamics and problems specific to the energy industry. Using fraud triangle theory, this study will provide new findings. This research will concentrate on the energy industry to improve our understanding of the reasons, opportunities, and rationalization of fraud in the sector. It will also offer advice on improving prevention and corporate governance methods in the sector.

Good corporate governance is a company management technique to balance the various needs of stakeholders of an organization or company. The process is usually colored by conflict resolution from a variety of stakeholders and providing assurance that the implementation of the correct procedures is always carried out by the company. It can be said that GCG is a way for companies to provide transparency to stakeholders which plays an important role in preventing financial reporting fraud committed by company managers. Realizing good and quality Good Corporate Governance requires the role of an independent board of commissioners. The function of independent commissioners is as a balancer in decision-making, having members of the board of commissioners from outside the company (5).

Managerial ownership refers to the ownership of shares owned by the company's board of commissioners, directors, managers, and ordinary employees. By owning shares in the company they work for, they will feel like they are working for the company, so they will make decisions and act carefully so as not to harm the company. Additionally, they will be more motivated to work for the company, which reduces the chances of fraud or misappropriation. The shares themselves are proof of the shareholder's claim rights to the company's assets. Financial performance disclosure is a management policy that can be influenced by the company's executive shareholding (6). The calculation of insider share ownership (KM) can be done by dividing the total insider share ownership by the total outstanding shares. Institutional ownership is the ownership of company shares by financial institutions such as companies by financial institutions such as insurance companies, banks, pension funds and investment banking (7).

Institutional ownership can be a tool used to reduce agency conflict because institutional shareholders, such as investment firms, pension funds, and financial institutions, typically have

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greater ability and resources to monitor management activities than individual shareholders. They tend to be more active in supervising the company's performance and demanding transparency and accountability from management, thereby reducing the possibility of deviations or opportunistic behavior from management that can harm other shareholders. Additionally, institutional ownership often has a significant influence on a company's strategic decision-making, as they generally hold large amounts of shares. Thus, they can put pressure on management to make decisions that are in line with the interests of shareholders and minimize conflicts between managers and owners (agency conflict). Studies show that companies with high levels of institutional ownership tend to have better corporate governance, including in terms of transparency of financial statements and fraud control (8).

Ineffective monitoring is the supervision of the company's performance that is ineffective (9). This illustrates the weakness of the company's supervision system. Ineffective monitoring is proxied with the ratio of the proportion of the independent board of commissioners (BDOUT) (10).

Fraud is considered part of internal threats, such as corruption, misappropriation of assets, false statements, and others (11). This research is based on the fraud triangle theory, three conditions of fraud that come from fraudulent financial reporting and asset abuse described in SAS 99, namely (pressure), (opportunity) opportunity and (razionalitation) rationalization. Between the dependent variables and the fraud triangle theory are interrelated, this is because of financial pressure, the perpetrator has the opportunity to commit fraud and the perpetrator will seek a raid to justify the fraud that has been committed.

Previous research linking financial statement fraud with good corporate governance and ineffective monitoring has been carried out several times, here are the results of the research (12) explains that *good corporate governance* (GCG) has a significant influence on fraud in companies. The study shows that the application of the principles of *good corporate governance* Such as transparency, accountability, responsibility, independence, and fairness can effectively reduce the chance of fraud in the company's financial statements and operations. In this study, it was found that a strong corporate governance structure, such as the existence of an independent board of commissioners, an active audit committee, and effective internal audits, plays a major role in minimizing fraud risk. Samanto et al. also emphasized the importance of strict oversight and clear separation between shareholders and management to reduce conflicts of interest that could lead to manipulation or irregularities. The results of the study support the theory that companies with better governance tend to be better able to maintain the integrity of their financial statements and experience fewer cases of fraud, due to stronger internal control mechanisms and more effective oversight from stakeholders. Meanwhile, the results of the research (13) explains that *ineffective monitoring* has a positive influence on *Fraudulent Financial Reporting* (fraudulent financial reporting). This study shows that when the supervisory mechanism in the company does not run effectively, such as weak supervision from the board of commissioners, audit committee, or lack of internal audit role, the risk of fraud in financial reporting tends to increase. (13) stated that weaknesses in the internal control and oversight system create opportunities for management to manipulate financial statements without being detected. This usually occurs when the supervision implemented is formal or does not run in accordance with its function, which causes internal control to be unable to detect or prevent financial irregularities.

The Board of Commissioners functions as a monitoring of the Company's activities, namely by supervising the Company's directors in achieving performance and providing advice to the directors regarding business management irregularities that are not in accordance with the direction that the Company wants to go (KNKG). According to (14) The presence of managerial ownership increases the effectiveness and accuracy of supervision, thereby ensuring that the financial statements accurately reflect the Company's performance. This is in line with (15) That one of the mechanisms of good corporate governance that can minimize agency conflicts in order to achieve values that are beneficial to all parties is in terms of managerial ownership.

H1 : Managerial ownership has a positive effect on financial statement fraud.

Large institutional ownership does not always result in effective oversight. Conversely, pressure to meet short-term performance targets often leads to accounting manipulation or other fraudulent acts. For example, research by (8) Pointing out that institutional ownership can exert significant pressure on management to achieve high targets, this pressure arises especially when institutional investors focus on short-term performance and provide unrealistic incentives to management, thus encouraging financial manipulation actions.
H2 : Institutional ownership has a positive effect on financial statement fraud

Ineffective monitoring positively related to the risk of financial statement fraud. For example, a study by (13) found that the ineffectiveness of internal supervision, especially by the audit committee and top management, had a significant correlation with the increase in fraudulent financial reporting cases**.** When the internal oversight mechanism, the board of commissioners, the audit committee, and the external auditor do not perform their functions properly, the opportunity to commit fraud becomes greater. Therefore, improving the quality of supervision through good corporate governance, effective internal control, and a corporate culture that supports transparency and accountability is essential to minimize the risk of financial statement fraud.
H3: ineffective monitoring affects financial statement fraud.

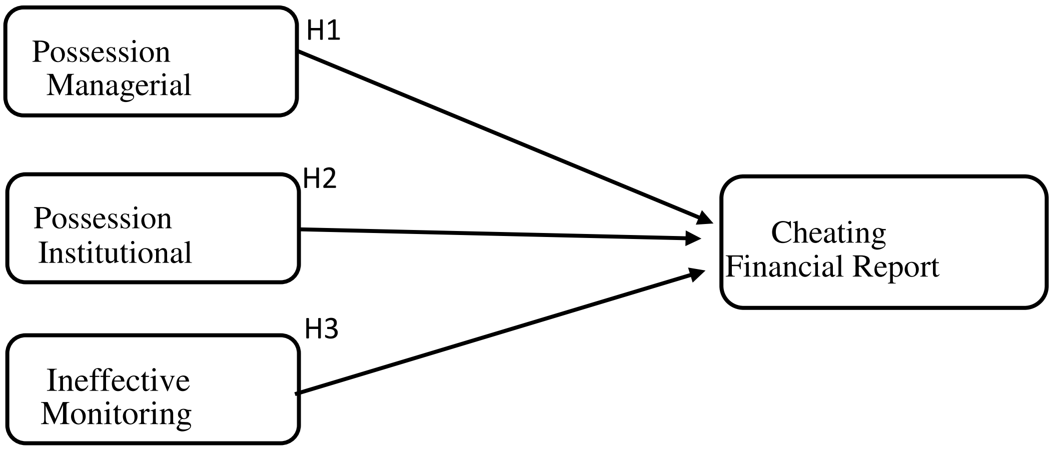

Figure 1 : research model

2. Research Method

This study uses secondary data taken from the financial statements of energy sector companies on the IDX (Indonesia Stock Exchange) from 2020 to 2022. This company is selected based on the following criteria:

Table 1 : Sample Selection Process

It	Criterion	Total
1	Energy sector companies listed on the IDX during the research observation year 2020 - 2022	85
2	Energy sector companies that did not present complete financial statements during the 2020 to 2022 research years	(43)
3	Energy sector companies that provide financial statements in dollar currency for the years 2020 to 2022	(31)

4	Total sample (n x study period (11 x 2 years)	22

Multiple linear regression analysis is a statistical technique used to study the relationship between one dependent variable, or variable to be predicted, and two or more independent variables, or predictor variables. The purpose of this analysis is to find out the strength of the relationship between these variables and then make the following predictions:

$$Z = \beta 0 + \beta 1KM + \beta 2KI + \beta 3BDOUT + \varepsilon$$

Table 2 : Operational Description of Variables (8)

Variable Name	Proxy/Indicator	Measurement
Fraudulent Financial Reporting	Altman Z-Score	Z = 6.56X1 + 3.26X2 + 6.72X3 + 1.05X4 X1 = Working Capital X2 = Rentained Earnings X3 = Earnings Before Interest and Taxes X4 = Book Value of Equity
Managerial Ownership	MILES	$\frac{Number\ of\ Managerial\ Ownership\ Shares\ x\ 100\%}{Number\ of\ Share}$
Institutional Ownership	KI	$\frac{Number\ of\ Institutional\ Ownership\ Shares\ x\ 100\%}{Number\ of\ Shares}$
Ineffective Monitoring	BDOUT	$\frac{Proportion\ of\ Independent\ Board\ of\ Commissioners\ x\ 100\%}{Total\ Number\ of\ Board\ of\ Commissioners}$

3. Results and Analysis

3.1. Normality Test

The normality test in this study uses the Kolmogorov-Smirnov test. If the significance value (Sig.) is greater than 0.05, the research data is normally distributed and if the significance value (Sig.) is less than 0.05, the research data is not normally distributed. The test in this study produced 0.07, which is a significance value greater than 0.05, which means that it is normally distributed.

3.2. Multicollinearity Test

The multicollinearity test is used to assess whether there is a correlation between independent variables in a regression model. The test results in this multicollinearity study showed that the values on all independent variables had a tolerance of > 0.1 and a VIF value of < 10. Thus, it can be concluded that there is no multicollinearity in all independent variables studied.

3.3. Heterokedasticity Test

Heteroscedasticity testing is carried out to ensure that the linear regression model to be evaluated shows a constant distribution pattern and does not experience heteroscedasticity. In this study, the glacier test was used to test heteroscedasticity by regressing all independent variables with residual variables. Based on the test results, this study has a significant > 0.05, meaning that heteroscedasticity does not occur.

3.4. Autocorrelation Test

The next classic test step is an autocorrelation test that can be carried out using the Durbin-Watson test, provided that if the DW value is between 2 and +2 or < DW <+2 it means that no autocorrelation has occurred.

Table 3 : Autocorrelation Test Results

Durbin-Watson	Conclusion
2.078	No Autocorrelation Occurs

Source : Secondary data processed by SPSS25

From the test results, a Durbin-Watson value of 2.078 was obtained, which shows that there is no autocorrelation.

3.5 Determination Coefficient Test (R2)

Table 4 : Results of the Determination Coefficient Test

Model Summaryb

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.634 a	0.401	0.330	2.078	2.085

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

Source : Secondary data processed by SPSS25

The test result obtained by the adjusted R2 (adjusted determination coefficient) is 0.401. This shows that all independent variables simultaneously have an influence of 33% on financial statement fraud. While the rest, which is 67%, is influenced by other variables that are not tested in this study.

3.6 Hypothesis test (t-test)

The hypothesis test (t-test) aims to find out how much influence the independent variable has on each dependent variable. In this study, the significance value was smaller than the p-value < α (for example, 0.05), which means that the independent variable had a significant effect on the dependent variable.

Table 5 : Results of Partial Test t (Test t)

Research Variables	Regression Coefficient	T count	Sig.	Conclusion
(Constant)	4.269	2.968	0.007	
Managerial Ownership	4.813	2.683	0.013	Informative
Institutional Ownership	-2.201	-1.594	0.124	Insignificant
Ineffective Monitoring	-7.714	-1.894	0.070	Insignificant

Source : Secondary data processed by SPSS25

The table of t-test results proves that independent variables have an effect on dependent variables where:

1. The variable of managerial ownership has a positive and significant influence on financial statement fraud, as seen from the regression coefficient of 4.813 and the significance value of 0.013 < 0.05.
2. The variable of institutional ownership does not have a significant effect on financial statement fraud. The second hypothesis (H2) is rejected because institutional ownership

has a significance of 0.124 > 0.05 as shown by the t-value of the statistical table of the table.

3. The variable of ineffective monitoring did not have a significant effect on financial statement fraud, as shown by the regression coefficient of 7.714 and the significance value of 0.070 > 0.05.

The Effect of Managerial Ownership on Financial Statement Fraud

Financial statement fraud is positively and significantly affected by financial statement fraud. This is supported by research (16) and (17) that managerial ownership has an effect on financial statement fraud. The study found that high shareholding, which should be correlated with shareholder interests, has the potential to increase financial statement fraud. This result is in accordance with the Triangle of Fraud theory, which says that three things play a role in fraud: pressure, opportunity, and rationalization. They can manipulate financial statements due to pressure to achieve strict financial targets, limited access to information, and weak internal oversight due to management controls. In addition, people who own a lot of stocks may feel more rational, believing that cheating is the best way to help the company and itself. The results are very important for many parties. To avoid unnatural pressure, management must improve internal controls, increase transparency, and manage expectations. The study found that high shareholding, which should be correlated with shareholder interests, has the potential to increase financial statement fraud. They can manipulate financial statements due to pressure to achieve strict financial targets, limited access to information, and weak internal oversight due to management controls. In addition, people who own a lot of stocks may feel more rational, believing that cheating is the best way to help the company and itself. The results are very important for many parties. To avoid unnatural pressure, management must improve internal controls, increase transparency, and manage expectations. The supervision and autonomy of the board of commissioners must be improved.

The Effect of Institutional Ownership on Financial Statement Fraud

Institutional ownership does not have a significant effect on financial statement fraud. In line with research (18) and (19) that institutional ownership does not have a significant effect on financial statement fraud. In the context of fraud triangle theory, the findings of the study can be analyzed that institutional ownership does not have a significant influence on financial statement fraud. First, as shareholders, large institutions tend to have longer-term goals and lower investment risks than individual shareholders. Therefore, managers and executives who have managerial ownership may not feel the same pressure to cheat to meet market expectations or performance targets. Second, in terms of opportunity, large institutions that have significant ownership in the company may have more control over internal policies and control systems. Because such institutions may be more inclined to oversee and control the company's operations. Third, in terms of rationalization, large institutions with strong reputations and ethics may be more pressured to comply with regulations. They may not think of fraudulent behavior in financial statements as a way to maintain a company's profits or reputation because it can damage the reputation of their investors. Therefore, the findings of this study provide an interesting picture of how the components of fraud triangle theory relate to institutional ownership and contribute to the level of financial statement fraud committed by an organization.

The Effect of Ineffective Monitoring on Financial Statement Fraud

The results of this study show that ineffectiveness does not have a significant effect on financial statement fraud. This is supported by research (4) that ineffective monitoring has no effect on financial statement fraud. Result (20) It also explained that ineffective monitoring has a negative effect on financial statement fraud. This finding contradicts the Fraud Triangle Theory, which states that one of the important factors that enable fraud is ineffective surveillance as part of the "opportunity". The lack of internal oversight and control can lead to cheating becoming easier for people who have the pressure and reason to do so. Nevertheless, this study suggests that the impact of ineffective monitoring on financial statement fraud may not be as simple as anticipated. Company characteristics, governance structure, and company culture may also be influential. This research allows additional research to understand the complexity of the components that contribute to financial statement fraud. To evaluate the impact of ineffective surveillance in various situations and time periods, more contextual and long-term research is needed. Although the study did not find a significant impact, it nonetheless made an important contribution by showing that ineffective supervision was not the only factor that led to financial statement fraud. Good prevention requires strong oversight, good internal controls, and ethics embraced by everyone in the company.

4. Conclusion

The results of this study show that the variable of managerial ownership has a positive and significant influence on financial statement fraud. However, institutional ownership and ineffective monitoring did not have a significant effect on the possibility of financial statement fraud in energy sector companies during 2020 to 2022. This study has several limitations such as measuring financial statement fraud which still uses the beneish zscore model where there are already the latest models such as f-score to measure fraud, sample limitations and the lack of variables used to find out what factors cause the possibility of financial statement fraud. The next suggestion for researchers is to use more accurate and up-to-date measurement proxies such as f-score, multiply samples not only from energy companies but also take samples from many corporate sectors and also add other variables that are able to predict the possibility of financial statement fraud such as profit management, profitability and audit quality. This research contributes as a means of developing theory and science regarding the influence of managerial ownership, institutional ownership and *ineffective monitoring* to estimate the possibility of fraud in the company's financial statements, especially those engaged in the energy sector. This research is expected to be additional information for the Company's managers or internal parties that the possibility of financial statement fraud is influenced by ineffective monitoring, good corporate governance, and institutional ownership, especially managerial ownership, so as to accelerate decision-making when financial statement fraud may occur.

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