Influence of Fraud Hexagon on Fraudulent Financial Reports within State-Owned Companies Listed on the IDX in 2019-2023

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Abstract

The phenomenon of financial statement fraud, which has a very large loss effect compared to other forms of fraud despite its low number of incidents, is the reason behind this study. Aside from that, there are still instances of financial statement fraud that call for additional investigation to determine how different independent variables—like financial stability, inadequate oversight, shifting directors or auditors, arrogance, and collusion—affect the dependent variable of financial statement fraud. The quantitative study makes use of secondary data from corporate annual reports. State-owned enterprises (BUMN) that were listed on the Indonesia Stock Exchange between 2019 and 2023 made up the study's population. Purposive sampling was used in the sampling process, resulting in 16 corporate samples over the course of five years and a total of 80 observation data points. Logistic regression analysis is the method of data analysis that is applied. The study's findings demonstrate that, in contrast to the factors of financial stability, change of auditor, change of directors, and arrogance, which have no effect on financial statement fraud, inefficient supervision and collaboration have a substantial impact.

Keywords: financial stability, ineffective monitoring, change of auditor, change of directors, arrogance, collusion

Introduction

Companies going public in the current era of globalization, especially in Indonesia, are experiencing intense competition between companies due to rapid economic changes. The role that financial reports have is very important in the context of business and finance. Financial reports are used to provide a clear picture of the financial health of a company or entity over a certain period of time. Every company always strives to publish good financial reports so that
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the company's financial health and financial performance appear to be in good condition. If the condition of a company does not match the expected financial conditions and performance, it can encourage management to commit fraud by manipulating financial reports so that it can harm users of financial reports (Ramadhan, 2022).

Organizations lose five percent of their income to fraud, according to the Association of Certified Fraud Examiners (ACFE) (ACFE, 2022). In 2022, 2,110 fraud incidents were discovered by ACFE, spanning 133 nations. Fraud resulted in losses of over 3.6 billion dollars. The average loss caused by fraud was $1,783,000 per case, and 21% of cases had losses greater than 1 billion dollars. The fraud phenomenon in Indonesia often occurs in the public sector, especially the government sector (ACFE, 2019). Based on the Indonesian Fraud Survey (SFI), losses caused by fraud amounted to IDR 873,430,000,000. The losses incurred amounted to IDR 7,248,879,668 if calculated from the average per case. The number of cases successfully handled was 239. Based on the overall lost value, ACFE Indonesia investigated the three most damaging frauds in Indonesia in 2019: financial statement fraud (9%), asset theft (21%), and corruption (70%)

In 2018, there was a fraud case at PT Garuda Indonesia, a state-owned enterprise in Indonesia. The firm engaged in fraudulent operations and reported an inaccurate net profit of USD 809,850,000. From the collaboration agreement with PT. Mahata Aero Technology, Garuda Indonesia recorded revenue of USD 239.94 million; however, these payments are still payable and cannot be recorded as income under PSAK. It was established that PT. Garuda Indonesia (Persero) Tbk had broken OJK rule Number 29/POJK.04/2016 pertaining to issuers' or public businesses' annual reports. As a result, the company faced administrative consequences, including a Rp. 100 million fine. Next The Financial Audit Agency came to the conclusion in 2021 that there had been fraud in PT Asabri (Persero)'s administration of investment and financial money between 2012 and 2019. Regulatory agreements were used in the scam to place investment funds with several firm owners or shareholders as shares and mutual funds. State losses resulting from anomalies (or illegal activities) in PT Asabri's investment funds and financial management from 2012 to 2019 were IDR 22.78 trillion.

The pressure, opportunity, and rationalization components of Cressey's fraud triangle hypothesis, which was published in 1953, can be utilized to spot dishonest financial reporting. Wolfe & Hermanson, (2004) expanded the fraud triangle hypothesis into the fraud diamond by incorporating the capability element. The inclusion of the ego component indicates the evolution of the earlier fraud theory, which Crowe (2011) dubbed the fraud pentagon. The most recent fraud theory, which Vousinas, (2019) expanded by including the collusion aspect, yielded the fraud hexagon. The fraud hexagon hypothesis is the theory that was applied in this study.
Literature Review

Agency Theory

The contextual link between a principal and an agent, which exists between two or more individuals, groups, or organizations, is explained by agency theory. Agency conflict frequently arises in the interaction between shareholders and management (Jensen & Meckling, 1976). Differences in interests that lead to conflicts of interest that produce issues and shareholders' ignorance of management's overall operations, which allows management to conduct fraud, are two elements that set off agency conflicts. According to Jensen & Meckling (1976), asymmetric information can also lead to agency conflicts. Because the firm is handled by management, information asymmetry may arise when shareholders have access to and a desire to learn about the company but are unable to do so completely. In contrast to the shareholders, the management, as the company's manager, is undoubtedly aware of information on the management and overall success of the business. Such terms encourage fraud by enabling management to conceal certain facts from shareholders.

Fraud

Fraud is any unlawful act characterized by deception, concealment, or breach of trust (Suryandari & Endiana, 2019). Fraud in various contexts can include behavior such as deception, manipulation, or violation of rules with the intent to harm another party or gain an undue advantage. According to ACFE (2020), there are three types of fraud: corruption, misuse of assets, and fraudulent financial statements. Romney & Steinbart (2014) define financial statement fraud as deliberate behavior with actions that result in detrimental financial reports by falsifying financial reports with the aim of defrauding investors and creditors by hiding losses or problems with the company.

Hexagon theory

"Advancing Theory of Fraud: The S.C.O.R.E. Model." by Vousinas (2019) is the first publication to provide the fraud hexagon theory, the most recent development in the field of fraud. It is an updated version of earlier theories of fraud, such as the fraud triangle theory (Cressy Donald, 1953) which included rationalization, opportunity, and pressure, the fraud diamond theory Wolfe & Hermanson, (2004) which included capability, and the original theory of fraud. Adding to the impression of arrogance is Crowe's (2011) pentagon suggestion. Therefore, the fraud hexagon consists the following elements: pressure (financial stability), opportunity (ineffective supervision), rationalization (auditor turnover), capacity (director turnover), hubris (frequent CEO photographs), and collusion (many board members).

One indicator utilized in the pressure factor is financial stability. A company's financial stability may be defined as its cash flow situation. When the economy, industry, and management are under pressure to adopt financial statement conditions, they will be subject to SAS No. 99, which addresses fraud issues in financial audit reports, or business unit is approaching financial stability (Skousen et al., 2009). If the exchange rate remains stable, investors will be less likely to put their money in the company. When a company has good financial stability, it can increase its market value (Ijudien, 2018).
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When there are insufficient supervisors to effectively monitor the company's performance, fraud is likely to occur. This is known as ineffective supervision. The oversight in question, according to Skousen et al., (2009), is done by impartial commissioners over internal control and the financial reporting procedure. At least thirty percent of a company's commissioners must be independent, according Financial Services Authority No. 57/POJK.04/2017.

Rationalization is a justification for unethical treatment carried out by perpetrators of fraud. Perpetrators of fraud always provide justifiable reasons so that their fraudulent actions are not suspected (Sholikatun & Makaryanawati, 2023). The measurement of rationalization in this research uses auditory change. An auditor is a person who is seen as having an impartial viewpoint in order to expose fraudulent activities carried out by a business. Audit failure can be caused by several things, one of which is when there is a change of auditor in a company (Ratnasari & Rofi, 2020). Changing auditors is a company's attempt to hide fraud by management.

Capability is the ability to commit fraud based on how much ability and strength a person has to carry out fraud on the company's financial reports. Capability can be measured by changing directors. According to Wolfe & Hermanson, (2004), board of director changes may result in stressful times, which raises the risk of fraud. The initial performance after a change of directors may not be in good shape due to the time needed for adaptation. A high position in a business can offer the capacity to create or exploit possibilities for fraudulent acts.

Arrogance is the attitude of someone who feels that there is no internal control that applies to them (Vousinas, 2019). The CEO of a corporation is one of the powerful people who frequently exhibits this kind of greed. The quantity of CEO pictures serves as a stand-in for the arrogant component (Achmad et al., 2022). The CEO appears to be rather narcissistic, as seen by the amount of photos of him in the company's annual report, which likely motivates him to flaunt his position and prestige to the world.

According to the Big Indonesian Dictionary (KBBI), collusion is secret cooperation for bad purposes. An example is an agreement between a superior and subordinate to steal a certain amount of money, which increases the potential for fraud (Jannah et al., 2021). According to (Vousinas, 2019), collusion refers to a fraudulent agreement or agreement between several individuals for certain bad purposes, such as defrauding a third party of their rights by taking advantage of the position of another person or victim. Collusion is demonstrated by the large number of independent commissioners holding concurrent positions (Achmad et al., 2022). Dual position refers to a situation where a person occupies two different roles or responsibilities simultaneously.

Research Method

In order to delve into a specific group or sample, this study use quantitative research tools. Quantitative research relies on numerical data and statistical analysis. The research covered here focuses on BUMN, or state-owned firms, that have their stock listed on the BEI
in Indonesia from 2019 to 2023. This study's population consists of state-owned enterprises that will be listed on the Stock Exchange of Indonesia between 2019 and 2023. The sample used for this study comprises all state-owned enterprises listed on the IDX between 2019 and 2023. This study used the sampling approach of purposeful sampling, which involves selecting samples with specified considerations. In this study, we looked at 16 BUMNs that were listed on the BEI in Indonesia between 2019 and 2023. The total data analyzed was 80, representing a five-year period for each of the 16 companies that were the object of the research.

This research uses financial statement fraud as its dependent variable. Financial stability, incompetent oversight, frequent CEO photographs, director and auditor changes, and concurrent appointments to the board of independent commissioners are the independent factors. The logistic regression test is used in this study's data analysis methodology. Before the regression test, our study model will undergo a battery of tests, including the Hosmer and Lemeshow model feasibility, an overall model test, and a Nagelkerke R square coefficient of determination test.

Result and Discussion

Overall model fit

To evaluate the overall model fit, we compare -2LogL in the first block (block number = 0) to -2LogL in the first block (block number = 1). If the -2LogL value at block number = 0 is larger than the -2LogL value at block number = 1, then the model is considered excellent because the findings show a reduction.

Test Results -2LogL (Block Number = 0)

<table>
<thead>
<tr>
<th>Iteration</th>
<th>-2 Loglikelihood</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Constant</td>
</tr>
<tr>
<td>Step 0</td>
<td>1</td>
<td>102.309</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>102.298</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>102.298</td>
</tr>
</tbody>
</table>

a. Constant is included in the model.
b. Initial -2 Log Likelihood: 103.591
c. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Source: Processed by SPSS
The initial \(-2\log L\) value (block number = 0) using a constant is 102.298 based on the processed data. The \(-2\log L\) value (block number = 1) shows that when the independent variable was input, it dropped to 87.574. The value has decreased by 14,724, according to the difference between these two measurements. Using the data provided, we can conclude that the \(-2\log L\) (block number = 0) value is larger than the \(-2\log L\) (block number = 1) value. The match between the data and the proposed model is strong, and the addition of independent variables strengthens the regression model. The evidence is consistent with the model, to rephrase.

**Goodness of Fit Test**

**Hosmer and Lemeshow Test**

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.971</td>
<td>8</td>
<td>.761</td>
</tr>
</tbody>
</table>

Given these parameters, the Hosmer and Lemeshow Goodness of Fit Test yields a chi-square value of 4.971. At the 0.05 significance level, the table chi-square value for df 8 is 15.5027. \(H_0\) is approved since the probability value is 0.761 > 0.05 and the computed chi-square value is 4.971 ≤ 15.5027. Since there is no obvious difference between the model and the data, it can be concluded that the regression model used in this study is functional and can predict the observed values.
Coefficient of Determination (Nagelkerke's R Square)

Nagelkerke R square indicates that the coefficient of determination, based on the data processed as a result of regression analysis, is 0.233. Thus, the independent variable can only account for 23.3% of the dependent variable. This study model does not account for the remaining component, which amounts to 76.7%.

Results of Logistic Regression Analysis

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>financial Stability</td>
<td>.484</td>
<td>1.154</td>
<td>.176</td>
<td>1</td>
<td>.675</td>
<td>1.623</td>
</tr>
<tr>
<td></td>
<td>Change of auditor</td>
<td>.708</td>
<td>.894</td>
<td>.628</td>
<td>1</td>
<td>.428</td>
<td>2.031</td>
</tr>
<tr>
<td></td>
<td>change of directors</td>
<td>-.836</td>
<td>.625</td>
<td>1.789</td>
<td>1</td>
<td>.181</td>
<td>.433</td>
</tr>
<tr>
<td></td>
<td>number of CEO photos</td>
<td>-.422</td>
<td>.506</td>
<td>.694</td>
<td>1</td>
<td>.405</td>
<td>.656</td>
</tr>
<tr>
<td></td>
<td>concurrent positions on the board of commissioners.</td>
<td>-.581</td>
<td>.276</td>
<td>4.431</td>
<td>1</td>
<td>.035</td>
<td>.559</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-3.039</td>
<td>1.777</td>
<td>2.926</td>
<td>1</td>
<td>.087</td>
<td>.048</td>
</tr>
</tbody>
</table>

a. Financial stability, ineffective supervision, director turnover, number of images of the chief executive officer, and board of commissioners concurrent roles are variables input on the first stage.
Source: Processed by SPSS

The logistic regression equation may be written as follows using the data in the table above, which represents the outcome of the logistic regression analysis:

\[
KLK = -3.039 + 0.484SK + 9.341PTE + 0.708PA – 0.836PD – 0.422CEOPICT – 0.581RJ + e
\]

In light of the results shown in the table from the study conducted using the logistic regression model, the following partial tests were developed:
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There is no correlation between financial soundness and financial statement fraud. With a probability of $0.675 > 0.05$, the value is statistically significant, and the tcount value is smaller than the table value ($0.176 < 1.992997$), according to the Wald test results. We can conclude that the likelihood of financial statement fraud is not affected by changes in the company's overall assets. The findings of this study support the research of Lionardi & Suhartono, (2022) and Carla & Pangestu, (2021), who found no relationship between financial stability and rigged financial reporting. This is because the value of assets can vary over time as a result of transactions like buying and selling them, which in turn affects their market value.

Financial statements that are fraudulent are influenced by insufficient oversight. The probability value is less than the significance threshold ($0.002 < 0.05$), and the tcount value is bigger than the table value ($9.987 > 1.992997$), according to the Wald test findings. It can be concluded that without adequate supervision, weaknesses in the internal control system, poor organizational culture, and lack of detection and corrective action against deviations can provide opportunities for fraud to occur and develop. The findings of this study are consistent with those of studies by Kurniawan & Trisnawati, (2021) and Azizah & Henny, (2023), which claim that the incidence of fake financial statements may be predicted by poor supervision. The independent board of commissioners is to blame for this, as they are not affiliated with the corporation and frequently have little understanding of its operations. Additionally, they may have similar responsibilities at other companies, which reduces the effectiveness of oversight and opens opportunities for fraud.

Auditor turnover is a measure of financial statement fraud. Since $0.428 > 0.05$, the probability value is larger than the significance threshold, and the tcount value is smaller than the table ($0.628 < 1.992997$), in accordance with the findings of the Wald (t) test. Thus, we can conclude that the frequency of falsified financial statements is not affected by the frequency of auditor changes. But changing auditors is done to ensure independence, improve audit quality, and adapt to changes in the company's needs and conditions. Both (Sukma & Daswan, 2023) and Larum et al., 2021) agree with the results of this investigation. (2021), who found no evidence linking auditor switching to an increase in financial statement fraud. The less-than-ideal and opaque performance of the external auditors is the reason for this outcome.

The deception in financial statements is unaffected by a change of directors. With a value of $0.181 > 0.05$, the probability value surpasses the significance level, and the tcount value is less than the table ($1.789 < 1.992997$), according to the Wald (t) test findings. In light of the fact that the purpose of a director change is to improve the performance of the exiting directors, who are perceived as less capable. Consistent with previous research, this study did not find any impact of director replacement on financial statement fraud (Putri & Fadilah, 2023; Handoko, 2021). This can be because of the board of directors’ responsibility in the corporation, which occasionally consists only of following legislative requirements to adhere to corporate governance.

Falsifying financial statements is unrelated to the frequency of images of the CEO. Since $0.405 > 0.05$, the probability value is larger than the significance threshold, and the tcount value
is less than the ttable (0.694 < 1.992997), according to the Wald (t) test findings. After reviewing the company's annual report, we may determine that the abundance of CEO photos does not stem from fraudulent financial reporting. The images are not meant to show how conceited the CEO is; rather, they are a method for the company's leadership to expose stakeholders to the community at large within the context of the company's structure. Consistent with previous research showing that the frequency of CEO images has no effect on fraudulent financial reports, this study's results corroborate those of (Nadziliyah & Primasari, 2022) and (Setyono et al., 2023). The inclusion of the CEO's headshot in the firm's annual report does not demonstrate a lack of modesty on their part. Rather, the photos should openly demonstrate who is responsible for what within the organization.

Fraudulent financial statements are affected by the independent board of commissioners' concurrent stance. As per the results of the Wald (t) test, the probability value is lower than the significance threshold (0.035 > 0.05) and the tcount value is higher than the ttable (4.431 < 1.992997). Hence, it is safe to say that the number of commissioners who are also employed by the same corporation is will affect the possibility of fraudulent financial statements because individuals who have multiple positions have more access to sensitive information and control over different business areas, which can be misused for personal gain. Findings from this study corroborate those from Nurbaiti & Putri, (2023) and Oktaviany & Reskino, (2023), all of which demonstrate that financial statement fraud is affected by independent commissioners holding various roles. When members of a non-partisan board of commissioners simultaneously serve, collusion occurs which will reduce supervisory independence.

**Simultaneous test**

<table>
<thead>
<tr>
<th>Omnibus Test of Model Coefficients</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 Step</td>
<td>14.724</td>
<td>6</td>
<td>.023</td>
</tr>
<tr>
<td>Block</td>
<td>14.724</td>
<td>6</td>
<td>.023</td>
</tr>
<tr>
<td>Model</td>
<td>14.724</td>
<td>6</td>
<td>.023</td>
</tr>
</tbody>
</table>

Source: Processed by SPSS

A difference between the fcount and ftable values of 14.724 and 1.992997, with a probability of 0.023, is clearly shown by the results of the Omnibus Tests of Model Coefficients. due to the probability value (0.023 < 0.05) being less than 0.05. It follows that pressure, opportunity, justification, aptitude, haughtiness, financial statement fraud is affected simultaneously by teamwork and cooperation.

**Conclusion**

Here are some takeaways from studies that looked at how fraudulence elements affected phony financial statements made by state-owned businesses:

1. Financial stability, ineffective supervision, auditor turnover, board of directors turnover, CEO photo frequency, concurrent separate commissioners and neither of them can affect
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financial statement fraud at the same time.

2. There is no correlation between financial statement fraud and the pressure factor, as evaluated by financial stability.
3. Ineffective supervision, a measure of the opportunity factor, affects financial statement fraud.
4. There is no relationship between auditor turnover and financial statement fraud when considering the rationalization factor.
5. The capability factor, as measured by the change of directors, has no influence on financial statement fraud.
6. When it comes to financial statement fraud, the arrogance factor—as assessed by the frequency of CEO photos—has no bearing.
7. The collusion factor, has an impact on deceitful financial reporting, as assessed by the board of commissioners who concurrently occupy positions.

References


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