Application of Fraud Pentagon in Detecting Financial Statement Fraud

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Abstract

Financial statements manipulation was a fraud form which is generally difficult to detect. The study was intended to analyze fraud pentagon elements in detecting fraudulent financial statements. The research population was all financial sector companies listed on the Indonesia Stock Exchange for the 2015-2018 period. Purposive sampling technique was used to determine the research sample and data analysis techniques used multiple regression. Based on the test results, it shows the financial set has a positive positive effect on fraudulent financial statements and the number of audit committee meetings that reflect effectiveness has a negative effect on fraudulent financial statements. The study results also contribute to the fraud pentagon theory and provide evidence that elements on fraud pentagon model can be used to detect fraudulent financial statements.

Keywords: financial; fraud; model; pentagon; statement;

1. Introduction

A financial statement manipulation is a fraud form. Fraud is an act against or violates the law carried out by people from within and/or from an organization outside. It is regarded as the intention of obtaining personal gain and/or groups that directly or indirectly harm other parties. The fraud referred to this study is fraudulent in the financial statements.

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It is a deliberate misrepresentation or concealment of a number or disclosure in a financial statement. It aims to deceive users of financial statements (Priantara, 2013; Sanjaya Adi Putra & Dwirandra, 2019; Rengganis et al., 2019).

Some cases had impacted the financial sector occurred at BPR KS BAS. Financial Services Organization (OJK) revealed the managing director as well as the shareholder was instructing BPR employees to process loans to 54 debtors with a total value IDR 24,225 billion in March-December 2014 period, but not according to procedures (www.ekonomi.kompas.com). Another fraud case occurred in financial sector companies. It has occurred to PT Sunprima Nusantara Pembiayaan (SNP finance). The issue on SNP Finance has been indicated since July 2017. Allegations on SNP finance has harmed 14 banks in Indonesia to around IDR 14 trillion. The company submitted working capital credit facilities to a number of banks to capitalize on their business activities. However, the credit status is stuck. Based on the investigation results (Kanten & Ulker, 2013), the company allegedly falsified documents, embezzlement, and fraud (www.cnnindonesia.com).

The losses arising from the fraudulent actions are quite significant. Due to they can affect the long-term sustainability of the company. It is also affected by the company’s reputation. The worst condition can be experienced by companies due to this action is bankruptcy. Therefore, fraudulent financial statements must be prevented as early as possible. In preventing the fraud possibility, the auditor can assess and consider from various perspectives, one of them is using pentagon fraud theory testing proposed by Crowe (2011), consists of five indicator elements, namely pressure, opportunity, rationalization, capability, and arrogance. Pentagon fraud is a refinement of the previous fraud theory, namely fraud triangle and fraud diamond.

Research related to pentagon fraud was conducted by Tessa & Harto (2016), who proxied the fraud pentagon factor into several elements consisting of financial targets, financial stability, external pressure, institutional ownership, ineffective monitoring, quality of external auditors, change in auditors, change of directors and frequent number of CEO’s picture to detect fraudulent financial statement. The study shows that there are three variables significantly affect fraudulent financial statement, including financial stability, external pressure, and the frequent number of CEO picture.

Aprilia (2017), proxied the pentagon fraud factor into several variables, namely CEO politics, frequency of CEO image appearance, doubtless undisclosed debt policy, limited access to special purpose entity information, supervision effectiveness, change of auditor chairman, stability finance, external pressure, managerial ownership, change of company accounting policy, and auditor opinion. The previous research shows some variables have a significant effect on fraudulent financial statements. It is only managerial ownership variables and for other variables do not have a significant effect. This study refined the previous research conducted by Tessa & Harto (2016), and the addition of auditor opinion variables adopted from Annisya et al., (2016), to test rationalization, the study results show auditor opinion has no effect on the fraudulent financial statement. Therefore, this study is to re-examine these variables.

This research was conducted to detect fraudulent financial statements using the fraud pentagon model. The elements cannot be investigated. Thus, they require proxies from each element. The way to detect fraudulent financial statements by using fraud pentagon model is to look at the effect of the variable. The proxy is on fraud pentagon element in financial statement fraud. Fraud pentagon models consist of elements of pressure, opportunity, rationalization, capability, and arrogance. The pressure element is the motivation to do and hide fraud committed. The opportunity element is a condition of weak control then provides an opportunity for someone to commit fraud.

The rationalization element is thought of justifying fraud that has occurred. The capability element is an ability of employees to penetrate internal control in their company, develop sophisticated fraud strategies, and be able to control social situations that can bring benefits to them by influencing others to work with them (Marks, 2012; Bire et al., 2019; Nuryani et al., 2018). Arrogance is a lack of conscience which is an attitude of superiority or pride in someone who believes that internal control cannot be applied personally.

Based on the above background, the problems can be formulated to reexamine the effect of financial targets on fraudulent financial statements, the effect of audit committee meetings on fraudulent financial statements, the effect of auditor turnover on fraudulent financial statements, the effect of changes in directors on fraudulent financial statements and effect of the appearance frequency of CEO images on fraudulent financial statements.

**Literature Review and Hypothesis**

Fraud is an intentional action with the intention of deceiving and taking advantage of other parties. Association of Certified Fraud Examiner (ACFE) is a professional institution engaged in the fraud examination occurs throughout the world and has the aim to minimize fraud in the world of work. ACFE (2014), describes the fraud tree is a structure to classify fraud in the work world. Fraud tree is in the following terms.
Fraud of financial statements is deliberate misstatement or omission of a number of disclosure in financial statements. It aims to deceive users of financial statements. According to ACFE (2014), fraudulent financial statements are fraud committed by management in material misstatements form of financial statements that harm investors and creditors. The financial statement contains elements of fraud can result in a decrease in financial information integrity and make investors wrong making decisions (Bayagub et al., 2016). The measuring instrument used to detect fraud is f-score. It is a fraudulent method of assessing financial statement with the highest accuracy level. Preposition of f-score value is the higher f-score, the higher fraud risk, due to investors need to consider investing in the country.

Fraud pentagon theory is a development of fraud triangle theory that was previously put forward by Cressey (1953), and diamond fraud theory previously stated by (Wolfe & Hermanson, 2004). Fraud pentagon theory explains more deeply about fraud triggering factors (Crowe’s fraud pentagon theory). This theory was put forward by Crowe Howard (2011). According to Aprilia (2017), fraud pentagon has a wider fraud scheme and involves manipulation by the CEO or CFO. This is due to there are many financial statement manipulations carried out by internal company officials. The authority has and easy access to information on financial statements.

The elements of pentagon fraud are pressure, opportunity, rationalization, capability, and arrogance. Pressure is an encouragement for the entity to manipulate financial statements that arise when there is a decrease or instability in the entity’s financial prospects. It is caused by the conditions of the economy, industry, or the entity’s operations (Hery, 2016). The pressure element is proxied by the financial target variable. Based on SAS No. 99, financial targets are excessive pressure on management to achieve financial targets set by directors or management (Prasastie & Gamayuni, 2015).

Widarti (2009) & Putriasih et al., (2016), study shows the financial targets with ROA proxy have a positive and significant effect on fraudulent financial statements. In addition, Huang et al., (2016), the study also revealed ROA as a proxy of financial targets has a significant effect on fraud. Based on the description, the following hypothesis is formulated.

H1: Financial targets have a positive effect on fraudulent financial statements

Opportunity is someone’s opportunity to commit fraud. According to American Institute of Certified Public Accountant (2002), ineffective monitoring is a condition wherein the internal control system does not work effectively, giving rise to opportunities for fraud. The audit committee plays an important role in overseeing and monitoring the process of corporate financial statement, internal control, and external audits. In its meetings, the audit committee can review the accuracy of the financial statement or and discuss significant issues have been communicated with management. However, according to the audit committee’s assessment may require follow-up.

Beasley et al., (2000), found audit committees from companies that commit fraud, meet less frequently than audit committees from non-fraud companies. In addition, Abbott & Park (2000) (in Ika & Ghazali, 2012), proves that companies with audit committees that meet at least four times a year tend not to restatement financial statements.

H2: The number of audit committee meetings has a negative effect on fraudulent financial statements

Rationalization is an attitude of justification for fraud that has been done. Fraud based on someone’s rationalization means the act is not a violation (Siddiq et al., 2017). The rationalization element is proxied by the variable
rationalization of auditor rationalization proxied by auditor turnover. In this case, it is seen from the change in the public accounting firm (KAP). It is probable auditor turnover is carried out with the aim of eliminating audit trails. Therefore, frauds are not found in previous audits and to cover fraud risks. They are carried out, thus, the possibility of being known by auditors becomes small because new auditors have not fully understood the company’s condition (Siddiq et al., 2017).

Lou & Wang (2009) stated that auditor turnover is a way to reduce the possibility of detecting fraudulent financial statements by the auditor. Old auditors may be able to detect fraud committed by management, but with auditor changes, the possibility of disclosure of fraud becomes smaller. Mardianto & Tiono (2019), also shows the results that auditor turnover has a positive significant effect on fraudulent financial statements.

\[ H_3: \text{Auditor turnover has a positive effect on fraudulent financial statements} \]

Wolfe & Hermanson (2004), stated that a person’s position in the organization provides the ability to take advantage of opportunities to commit fraud. The ability element is proxied by the change of directors variable. The RUPS decision to dismiss a member of directors board can be made on the grounds that the person concerned no longer fulfills the requirements as a member stipulated in the company law, including due to actions that are detrimental to the company or for other reasons considered appropriate by the RUPS. It is concluded that the change of directors could indicate fraud. Patraish et al., (2016), proved that capability has a significant effect on fraudulent financial statements. Leela & Devy (2017), also stated that the change of directors has an effect on the fraud occurrence.

\[ H_4: \text{Direction changes to have a positive effect on fraudulent financial statements} \]

Crowe (2011), arrogance is an attitude of superiority and arrogance over rights owned and feels internal control or company policy does not apply to him. According to Achsin & Cahyaningtyas (2015), this arrogance arose from the belief that he was able to commit fraud and that existing controls could not befall him. Therefore, fraudulent people usually think freely to commit fraud without fear of sanctions that would ensnare them.

The arrogance element is proxied by the appearance frequency of the CEO image. A high level of arrogance can lead to fraud because with the arrogance and superiority of CEO, feels that any internal controls will not apply to him because of the status and position he has. The number of CEO photos displayed in a company’s annual statement can represent the level of arrogance or superiority that the CEO has. According to Crowe (2011), there is also the possibility that the CEO will do anything to maintain the position is currently owned (Tessa, 2016).

Verawaty (2017) & Tessa G. (2016), suggested that CEO tends to want showing everyone the status and position they have in the company because they don’t want to lose their status or position. Any internal control system cannot limit the actions and behavior of the CEO because of the power they have.

\[ H_5: \text{The appearance frequency of CEO images has a positive effect on fraudulent financial statements}. \]

2. Materials and Methods

The population in this study were all financial sector companies listed on IDX for the 2015-2018 period. Data collection is applied purposive sampling technique. Based on the sample selection criteria used, the companies that meet the criteria are 47 companies. The data analysis technique used is multiple linear regression analysis.

3. Results and Discussions

Research data has been tested and free from the classical assumptions problem. The test results are statistically referred to in the following Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.111</td>
<td>0.229</td>
<td>0.485</td>
<td>0.628</td>
</tr>
</tbody>
</table>
Based on the analysis results, the regression equation used in this study can be written as follows.

\[ F_{SCORE} = 0.111 + 10.420 \text{ROA} - 0.682 \text{ACMEET} - 0.003 \text{AUDCHANGE} + 0.053 \text{DCHANGE} - 0.007 \text{CEOPIC} \]

### 3.1 Effect of financial targets on fraudulent financial statements

The test results show that financial targets have a positive effect on fraudulent financial statements, so the first hypothesis (H\(_1\)) is accepted. The results showed that the higher the target ROA owned by the company, the higher the likelihood of fraud level. Every company certainly wants to show that the company has a good ability in managing its assets. In general, company management has a profit target must be achieved every period. The company’s success in achieving profit targets will be a positive value for the company in the investor’s views. The results of this study are consistent with Summers & Sweeney (2000) (in Skousen et al., 2009); Nugraheni (2017), revealed ROA has a positive effect on financial fraud, wherein ROA in companies that commit fraud will be higher than companies that do not cheat.

### 3.2 Effect of the number of audit committee meetings on fraudulent financial statements

The test results show that the number of audit committee meetings has a negative effect on fraudulent financial statements. Therefore, the second hypothesis (H\(_2\)) is accepted. The test results show that the meeting can produce solutions can be used to overcome the findings of supervision. This makes the level of fraudulent financial statements minimized.

The results of this study support the research conducted by Beasley et al., (2000), explained that the high level of fraud in the company is due to the lack of intensity of audit committee meetings. The results of this study are also consistent with Abbott et al., (2004), research which proves that companies that hold audit committee meetings four times a year or more are not likely to restatement financial statements.

### 3.3 Effect of auditor turnover on fraudulent financial statements

The test results show that auditor turnover is not proven to have an effect on fraudulent financial statements. Therefore, the third hypothesis (H\(_3\)) is rejected. The results of the study indicate that the company’s decision to make auditor changes has no effect on the level of fraudulent financial statements by the company. The third hypothesis (H\(_3\)) is not supported in this study likely due to reasons behind the company’s independent auditor turnover not to cover the fraudulent company has been detected but the company wants to comply with the regulations made by the Indonesian government, the regulation states the provision of audit services to financial statements for an entity can be carried out for a maximum of six consecutive years by the same KAP. Three are consecutive years by the same auditor to one and the same client (Permana, 2018).

### 3.4 Effect of direction change on fraudulent financial statements

The test results show that directions change have no proven effect on fraudulent financial statements. Therefore, the fourth hypothesis (H\(_4\)) is rejected. The results showed that the directions change occurred within the company did not prove to have an effect on the level of fraudulent financial statements that occurred in the company. This research is consistent with Sihombing & Shididq (2014), and Junardi et al., (2018), found that capabilities proxied by the directions change had no effect on the occurrence of fraudulent financial statements.

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3.5 Effect of appearance frequency of CEO images on fraudulent financial statements

The test results show that the appearance frequency of CEO images is not proven to have an effect on fraudulent financial statements. Therefore, the fifth hypothesis (H5) is rejected. The number of CEO images included in the company’s annual statement does not indicate that the company CEO has dominant internal control, however, important CEO images are included in the annual statement to introduce the company CEO to the general public, especially stakeholders. This research is consistent with the research conducted by Aprilia (2017); Junardi et al., (2018), stated that the appearance frequency of CEO images did not significantly affect fraudulent financial statements.

4. Conclusion

Based on the testing results, it shows that from five testing elements of the fraud pentagon theory in detecting fraudulent financial statements, two tests were proven. Thus, this research cannot fully support the fraud pentagon theory. Based on the test results, it is concluded that the higher ROA target of the company, the greater the likelihood of fraudulent financial statements and the higher the intensity of the audit committee meeting, the less likely statement fraud occurrence. This research is not able to prove rationalization which is proxied by auditor turnover, a capability which is proxied by direction changes and arrogance that is proxied by the appearance frequency of CEO images that affect fraudulent financial statements.

Conflict of interest statement and funding sources

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Statement of authorship

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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References
Cressey, D. R. (1953). Other people's money; a study of the social psychology of embezzlement.
Crowe, H. (2011). Why the fraud triangle is no longer enough. *Horwath, Crowe LLP.*


