

Fraudulent financial reporting: fraud pentagon analysis in banking and financial sector companies

by Arista Hakiki

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Fraudulent financial reporting: fraud pentagon analysis in banking and financial sector companies

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**Mukhtaruddin*¹,
Evlin Sabrina¹,
Arista Hakiki¹,
Yulia Saftiana¹
and
Umi Kalsum¹**

¹Accounting Department, Faculty
of Economics, Universitas
Sriwijaya Palembang
Indonesia.

*Corresponding Author Email
yuditz@yahoo.com

Fraudulent financial statements is a fraud form which is generally difficult to detect. The study was intended to examine the effect of fraud pentagon theory in explaining the phenomenon of fraudulent financial statements. The research population was all financial sector companies listed on the Indonesia Stock Exchange during the 2016-2018 period. This research uses 5 independent variables to achieve this objective, namely: financial targets, external pressure, ineffective monitoring, auditor change, change of directors, and 5 frequent number of CEO's picture. The dependent variable was used is fraudulent financial reporting that proxied by F-Score model. Purposive sampling technique was used to determine the research sample, and data analysis techniques used multiple regression. Based on the test results, it shows that financial targets, external pressure, ineffective monitoring, auditor change, changes in directors, and many numbers of CEO's pictures have no significant effect on the fraudulent financial reporting.

Keywords: Fraudulent financial statement, fraud pentagon, fraud score model

JEL Code:G32, M21, M41, M42

INTRODUCTION

Every year cases of fraud always happen and become a problem in the company, and the worse the fraud doers are people who have power in the company. The Association of Certified Fraud Examiner (ACFE), there are 220 cases of fraud in Asia Pacific. Financial statement fraud accounts for 13% of total fraud cases, with a median loss of USD 700,000. Misstatement on financial statements occurs because of the motivation and encouragement from various parties, both from within the company and from outside the company (Septriani and Handayani, 2018). Encouragement and motivation so that the financial statements presented look good and attract the attention of investors or potential investors so that managers will try to do various ways to present good financial statements. Fraud techniques are varied, ranging from circumventing generally accepted accounting principles, conducting aggressive earnings

management to carrying out illegal actions which are then hidden, and leading to the bankruptcy of the company. Not to mention, the cases of financial reporting fraud that occur, also involve corporate auditors.

Financial statement fraud is not detected early can develop into a big scandal. Research conducted by the ACFE found that 26% of fraud cases with the highest median loss of USD 1,000,000 were carried out by the company owner or board of directors. Besides, ACFE also found that more than half of the perpetrators of fraud were management. Major accounting scandals, such as Enron, have proven the serious impact of financial statement fraud on a country's economy and provide enormous lessons for the accounting world. Early detection of fraud in financial statements is a must that must be prioritized. The ability to identify fraud quickly also develops into a necessity. Also, demands for

financial reporting that are increasingly comprehensive after the enactment of the International Financial Reporting Standards for the last five (5) years, also do not guarantee to be able to reduce the opportunity for fraud in financial reporting. With the more comprehensive financial statements that must be presented by management, there are many gaps in the financial statements that open up opportunities for unscrupulous management to commit fraud through earnings management.

In practice, fraud does not only occur in manufacturing companies. Many financial and banking sector companies also experienced it. Based on a survey conducted by the Indonesian Chapter ACFE in 2016, it shows the fact that the financial and banking sector is the sector that experienced the most cases of fraud after the government sector. The results of a survey conducted by the ACFE are also evident from banking and financial companies in Indonesia, which until now, are still vulnerable to cases of fraud. Fraud that occurred in the financial and banking sector in Indonesia is also not a new thing anymore. In 1997, Lippo Bank reported that the company was at a loss with assets smaller than the actual value of the asset. An example of a fraud scandal in the Indonesian financial and banking sector, which until now has not been completely resolved and is still being discussed, is the fraud that occurred at Century Bank, which was reportedly also dragged the names of executives in Indonesia.

In general, fraud will always happen when there is no prior prevention and detection. In addition, the prevention and detection of fraud in financial statements also often collides with the presence of other factors that motivate the emergence of fraud in various situations, as explained by various theories of fraud such as Cressey's Fraud Triangle Theory, Wolfe's Fraud Diamond Theory and most recently, Crowe's Pentagon Theory Fraud. To Crowe (2011), Pentagon Theory has five fraud risk factors that use financial and non-financial ratios. Five fraud risk factors consist of pressure, opportunity, rationalization, competence, and arrogance. Pentagon Fraud is a new theory that explores more on the trigger factors of fraud is pentagon fraud.

The competencies described in the pentagon fraud theory have the meaning which is similar to capability previously described in the diamond fraud theory by Wolfe&Hermanson (2014). Competence/capability is the ability of employees to ignore internal controls, develop hiding strategies, and control social situations for personal benefit (Crowe, 2011). To Crowe, arrogance is an attitude of superiority over the rights held and feels that internal controls or company policies do not apply to him. Moreover, fraud doers now tend to have a more independent mindset, more adequate information and access, compared to the era of fraud triangle (Marks, 2012).

The behavior and reasons or motives of management to commit fraud in financial statements are mostly explained in fraud theory. Pressures faced by management as agents for investors such as pressure to improve performance or increase the value of the company on the stock exchange,

for example, can also be used as a kind of rationalization for management to manipulate financial statements. Especially if the opportunity to commit fraud, it is also a small risk to be detected. Opportunities will be the entry point for fraud, while pressure and rationalization will encourage management to commit fraud. However, fraud with complex techniques and a large nominal is not possible if there is no particular person with special capabilities in the company. In other words, people who commit fraud must have the capability or competence to fool the internal control, control the situation, and develop strategies to disguise fraud. Feelings of superiority and arrogance with positions held, coupled with greed, make the perpetrators confident that internal control does not apply to them.

Earning management practices are a form of manipulation of financial statements that are often chosen as short-term 'solutions' by management to maintain investor confidence in their performance (Yendrawati et al., 2018). Earning management is a phenomenon that is difficult to avoid because of the use of accrual basis in preparing financial statements. Earnings management can make a company's performance look better than its competitors so that investors who are not careful (inattentive investors) will be easily deceived by management. Septriani and Handayani (2018) posited that earnings management is the beginning of financial statement fraud because financial statement fraud is often preceded by misstatements or earnings management from quarterly financial statements that are considered immaterial, but eventually develop into large-scale fraud and produce reports financially materially misleading.

Several studies have been conducted to see how pentagon fraud can detect the fraudulent financial reporting (Antawira et al., 2019; Apriliana and Agustina, 2017; Septriani and Handayani, 2018; Ulfah et al., 2017). Antawira et al. (2019) found that the financial target can affect the tendency of fraudulent financial reporting. But other studies show different results, Husmawati et al. (2017) conclude that financial target has not influence on fraudulent financial reporting. Saputra and Kesumaningrum (2017) found that external pressure affect fraudulent financial reporting, meanwhile Apriliana and Agustina (2017) did not find the relationship between external pressure and fraud. Research conducted by Ulfah et al. (2017) show that auditor opinion has effect on fraudulent financial reporting.

There has been no consistency from the results of the above research that caused this research to be still interesting and relevant to be studied. In addition, the opposite results of the variable above give the author attention to reexamine whether the pentagon fraud theory is able to detect fraudulent financial reporting.

This study is different from previous studies, namely in terms of the dependent variable measurement model used. The measurements used for the dependent variable in this study use the measurement model F-score proposed by Dechow et al. (2012) for detecting fraudulent financial statements that are analyzed by Pentagon Theory Fraud.

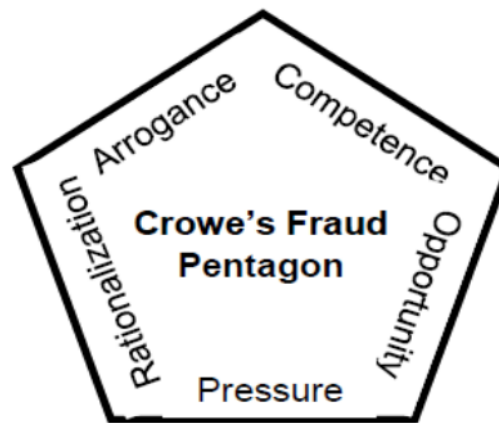


Figure 1: Crowe's Fraud Pentagon

Source: www.researchgate.net

This model detect earnings management that simultaneously improves test power and specification (Dechow et al., 2012). The variable component of the F-Score includes two things that can be seen in financial statements, namely accrual quality, and financial performance. Based on Kothari and Leone (2001), performance-matched discretionary accruals are more specific and powerful measurements than other discretionary accruals. Kothari and Leone (2001) also explained that performance matching is designed to control the impact of performance in measuring discretionary accruals and performance-matched discretionary accruals can be used as an alternative that can be used in researching earnings management. Based on the background above, the author finally decided to conduct a research entitled "Fraudulent Financial Reporting: Fraud Pentagon Analysis in Banking and Financial Sector Companies".

Fraudulent financial reporting not only causes the declining in the ethical value of the accounting profession, but also causes financial losses with a sizable amount (Antawira et al., 2019). The role of the auditor profession in this issue is very important for early detection and prevention of the possibility of fraudulent financial reporting so as to minimize the emergence of prolonged problems. To Crowe (2011) the factors causing fraud acts consist of five elements, namely: pressure, opportunity, rationalization, competence, and arrogance. The five elements are more commonly known as Crowe's fraud pentagon theory.

Literature review and hypothesis development

Theory of Fraud Pentagon

The first theory put forward by Cressey (1953), which

explains the elements that cause fraud, is known as the fraud triangle theory. The elements of a fraud triangle consist of pressure, opportunity, and rationalization. These three elements are risk factors that mutually support one another and form pillars that cause fraud. The development of the fraud triangle theory was carried out by Wolfe and Hermanson (2004), known as the diamond fraud theory. Wolfe and Hermanson (2004) found four elements that cause fraud, namely by adding capability or capability to the three elements previously described in the fraud triangle theory.

Furthermore, the development of the latest fraud triangle theory a few years back was put forward by (Horwarth, 2011), known as the pentagon fraud theory. The renewable theory that explores more deeply the factors that trigger fraud is the Crowe's fraud pentagon theory. Pentagon fraud theory adds elements of competence and arrogance to the three elements contained in the fraud triangle theory (Figure 1).

Competence is the ability of a person to commit an act of cheating. In this case, for example the high position is one of one's competencies to be able to commit fraud. Arrogance is an attitude that shows that the internal control, policies and regulations of the company do not apply to him and feel himself free from policies, regulations and internal control of the company so that he feels innocent of frauds committed (Baweakes et al., 2018). According to Crowe (2011), research by the Committee of Sponsoring Organizations of the Treadway Commission found that 70% of the perpetrators of fraud have a profile featuring a combination of pressure with arrogance and greed.

Crowe (2011), there are five factors that influence the fraud actions, they are (1) Arrogance. Arrogance is identified as an attitude of superiority and feels entitled or greed as part of someone who believes that internal control does not apply to his personality. Arrogance is proxied by

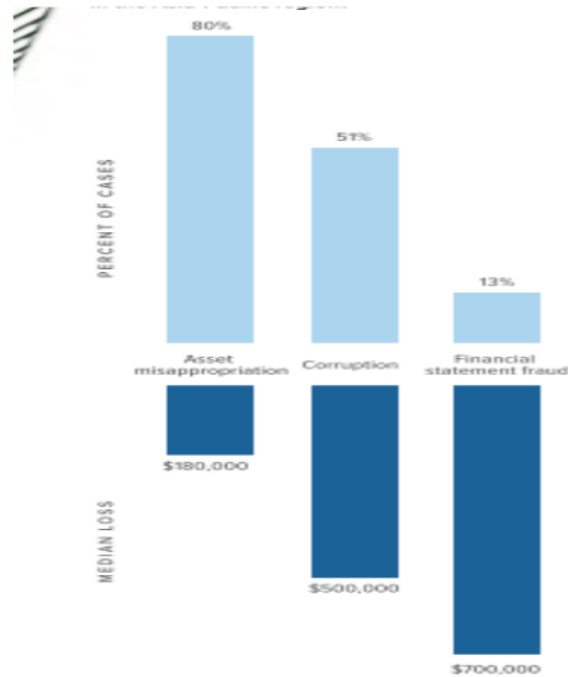


Figure 2: How is occupational fraud committed in the Asia-Pacific region.

Source: ACFE Report 2018

number of CEO's picture; (2) Competence. Competence is the ability of employees to override internal controls, by developing sophisticated and for deviation strategies controlling social situations for his benefit by selling it to others. Competence in this research is proxied by change in board of directors; (3) Opportunity. Weak control provides an opportunity for someone to commit fraud. Opportunity is proxied by ineffective monitoring; (4) Pressure. There is the motivation to commit fraud. Pressure is proxied by financial target and external pressure; and (5) Rationalization. Justification for theft or fraud has occurred. Rationalization is proxied by auditor's change.

Fraudulent Financial Statements

The actions of earnings management as a result of agency problems that occur between agent and principal are closely related to fraud (Septriani and Handayani, 2018). Fraud intentionally committed by management is an act that violates the rules set by the regulator. ACFE (2018) fraud that an act of fraud or misconduct committed by a person or entity that knows that the mistake can result in some unfavorable benefits to individuals, entities, and other parties. ACFE describes fraud in the form of a tree. Fraud tree has three main branches, namely asset

misappropriation, financial statement fraud, and corruption(Figure 2). Within these three main branches, several actions can be classified as follows: first, asset misappropriation in the form of cash fraud. Second, financial statement fraud which is categorized in timing difference in recording the transaction time is different or earlier than the actual transaction time. Third, corruption is the most difficult type of fraud to detect because it involves cooperation with other parties in enjoying benefits such as bribery and corruption . Corruption is divided into bribery with the aim of influencing decision makers in making business decisions, giving gifts after an agreement (illegal gratuity), and economic extortion.

Fraudulent financial reporting is an intentional error of a company's financial condition through misstatements and negligence of the amount or disclosure in the financial statements to deceive financial statement users. Fraudulent financial reporting includes the manipulation, falsification, or alteration of accounting records or supporting documents from the financial statements prepared not presenting the truth or deliberately eliminating events, transactions, and important information from the financial statements and deliberately applying the wrong accounting principles (Annisya et al., 2016). The Australian Audit Standard, Fraudulent financial reporting is a misstatement

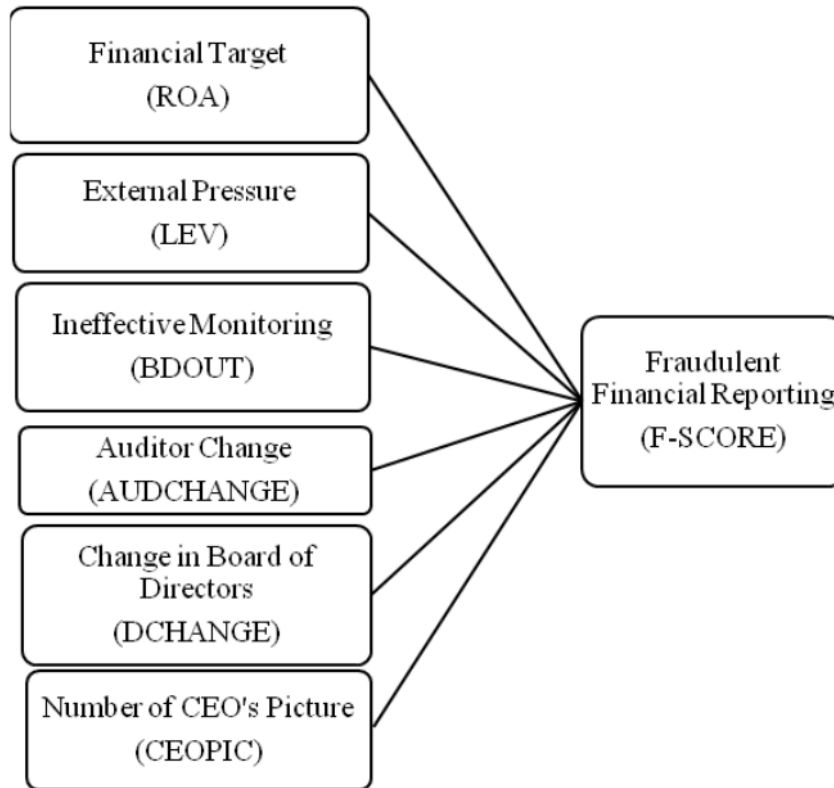


Figure 3: The conceptual framework of the study

Source: Processed by author

that intentionally includes negligence in the amount or expression in the financial statements to deceive financial statement users.

Conceptual Framework

The conceptual framework in this study is shown in Figure 3 above.

Hypothesis

Pressure has a variety of meanings, namely a situation in which a person feels pressured or depressed and a severe condition when someone is facing difficulties. Both of these meanings indicate that pressure can be a motivation for someone to take action (Christian et al., 2019). The manager is trying to improve its performance to achieve various company targets, one of which is the financial target. Financial targets are targets in the form of return on the business set by management. Agency theory explains the pressure got by management to generate high profits in accordance with the hopes of the owner. The high level of

profits set by the company makes the management does various ways to make financial statements look good. ROA is a ratio that shows the result of returns on the amount that has been used by the company. The actual ROA that has been achieved by the company in the previous year becomes the standard for the company to achieve the same target or even higher in the next year. The higher ROA that will be achieved by the company makes the probability of fraudulent higher financial statements higher. The actual ROA that has been achieved in the previous year will be used by management to set financial targets in the following years (Rahmanti&Daljono, 2013). Research conducted by Antawira et al. (2019) proves that ROA has a significant influence on fraudulent financial reporting.

H₁: Financial targets influence the fraudulent financial reporting

Based on pentagon fraud theory, external pressure is excessive pressure for management to have requirements or expectations from third parties. When excessive pressure from an external party occurs, there is a risk of

fraud to the financial statements. This is supported by the opinion of Skousen et al which states that one of the pressures that is often experienced by management in a company is the need to obtain additional debt or external financing sources to remain competitive, including research funding and development or capital expenditure (Yulianti et al., 2019). Managers will increasingly feel under pressure because they have to meet the need to obtain additional finance through debt and investment financing. Lou et al. (2009) states that when a company decides to get a debt, the company is subjected to external pressure and there is a greater risk of material misstatement due to fraudulent financial statements. External pressure is measured by leverage ratio that is the ratio between total liabilities and total assets (Septriani and Handayani, 2018). The results of research conducted by Husmawati et al. (2017) shows that the pressure which is proxy by leverage has an effect on financial statement fraud.

H₂: External pressure influence the fraudulent financial reporting

Ineffective monitoring is a condition in which there is no effective internal control system in the company. According to pentagon fraud theory, the lack of internal control can facilitate some parties to manipulate data in financial statements. In SAS (No.99) According to SAS No. 99, it happens because there is one person or a small group that dominates management in the company without compensation officers, ineffective supervision of the board of commissioners, directors, and audit committee over the financial reporting process, thereby opening up opportunities for fraud. An independent board of commissioners is believed to increase the effectiveness of supervision within the company, especially overseeing management in managing the company, since the independent board of commissioners stands alone and cannot be influenced by anyone (Annisya et al., 2016). Septriani and Handayani (2018) argued that high level of fraud occurred in Indonesia is caused by, but not limited to, poor monitoring so it leads to opportunity of an individual to commit fraud. This is supported by Skousen's (2009), in testing the variables that influence financial statement fraud. The results of this study indicate fraud often occurs in companies that have few external members of the board of commissioners.

H₃: Ineffective monitoring influence the fraudulent financial reporting

Annisya et al. (2016) said rationalization is how to justify his thoughts in committing crime. Earnings management is a management decision-making process that paves the way for management's drive or understanding of terms that might lead to fraudulent financial statements (Skousen et al., 2008). The auditor can provide several opinions on the company being audited according to the conditions that occur in the company. Change of auditors used by the

company can be considered as a form to eliminate fraud traces found by the auditor previous. The tendency is to encourage companies to replace independent auditor to cover up the fraud contained in company (Tessa and Harto, 2016). Not only to eliminate traces of fraud, if a company begin to be dissatisfied with the performance of auditors that cannot be intervened or influenced by the company in order to manipulate the results of the auditing then the tendency fraud will be higher. Saputra and Kesumaningrum (2017) stated that there was a significant effect of auditor turnover on financial statement fraud.

H₄: Auditor change influence fraudulent financial reporting

Wolfe and Hermanson (2004) argue that fraud will not occur without the right person with the right ability to carry out every detail of fraud. Capability means a person's efforts to commit fraud in order to achieve certain objectives. The properties described by Wolfe and Hermanson (2004) related to the elements of ability (capability) in the actions of fraud perpetrators, namely capability such as: position, function, brains, confidence or ego, coercion skills, effective lying and immunity to stress. Based on the traits expressed by Wolfe and Hermanson (2004), the position of CEO, board of directors, and other division heads is the most appropriate for these characteristics. The position of CEO, board of directors, and other division heads can be a determining factor for fraud, by utilizing its position which can influence others in order to expedite its fraudulent actions. Changes in directors are the transfer of authority from the old directors to the new directors with the aim to improve the performance of the previous management. However, changes in directors can cause stress periods that result in opening opportunities for fraud (Zaki, 2017). Change of directors can be an effort of the company to improve the performance of the previous directors by changing the composition of the directors or choosing new directors who are considered more competent (Bawekes et al., 2018). Substitution of directors can also indicate a certain political interest to replace the previous board of directors (Septriani and Handayani, 2018). Saputra and Kesumaningrum (2017) uses changes in directors as a proxy for capability to find indications of financial statement fraud.

H₅: Changes in directors influence the fraudulent financial reporting

Arrogance in the Pentagon fraud theory is a fraud element that is not found in fraud triangle theory or fraud diamond theory. Pride or lack of awareness is an attitude of superiority and the right or greed of someone who believes that internal control is something that is not necessary and should not be applied personally. Most fraud perpetrators are committed by people in very senior positions with big egos, who believe that the rules do not apply to themselves, they think that they can avoid internal control and will not

be detected in committing fraud. Frequent number of CEO's picture is the number of photos of CEO displayed in the company's annual financial statements. The many photos of CEOs displayed in a company's financial statements can show the level of arrogance and superiority that the CEO has. A CEO usually wants to show the public the status and position he has in a company because he does not want to lose that status or position (Akbar, 2017). This is following with one of the elements in the theory introduced by Crowe (2011), namely arrogance. A high level of arrogance can lead to fraud because the arrogance of a CEO can make him do any way to maintain the position and position they currently have (Septriani and Handayani, 2018). The results of the study (Apriliansa and Agustina, 2017; Bawekes et al, 2018) showed that the frequent number of CEO's pictures had a positive effect on the occurrence of fraudulent financial reporting.

H₆: Frequent number of CEO's picture influence the fraudulent financial reporting

METHODOLOGY

Population and Sample

The population is the whole group of people, events and things that are the object of research (Sekaran, 2003). Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn a conclusion. The population in this study are all financial sector companies that have been listed on the Indonesia Stock Exchange. The sample in this study was selected by the non-random method of purposive sampling. From 47 population of financial sector industry, there are 26 companies fulfill the criteria of sample. In this case the sample is selected with the following criteria:

- Companies classified in the banking and financial sector in a row during the period 2016 - 2018.
- Companies that publish annual financial statements on the company's website or the IDX website in period 2016 - 2018.
- Companies got profits during an not delisted the observation period.

Based on these criteria, 26 companies were selected as sample.

Data Analysis Method

Multiple Linear Regression Analysis

The data analysis method used is multiple linear regression models. The relationship between variables refers to the Skousen et al model with the regression model.

$$FScore = \beta_0 + \beta_1ROA + \beta_2LEV + \beta_3BDOUT + \beta_4AUDCHANGE + \beta_5BDCHANGE + \beta_6CEOPIC + \varepsilon$$

Where: β_0 : Coefficient of regression constant, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$: The regression coefficients of each proxy, F-SCORE: Fraudulent Financial Statement, ROA: Return on Assets, LEV: The ratio of total liabilities to total assets, BDOUT: Ratio of independent commissioners, AUDCHANGE: Auditor change, BDCHANGE: Change of Directors, CEOPIC: Number of CEO photos and: Error term

Operational Definition and Measurement of Variables

Dependent Variable (Y)

The dependent variable used in this study is the fraudulent financial statement. This study detects fraudulent financial statements by using the fraud score model as determined by Dechow et al. (2012). The F-Score model is the sum of two variables, namely accrual quality and financial performance (Skousen and Twedt, 2009), can be described in the following equation:

$$F\text{-Score} = \text{Accrual Quality} + \text{Financial Performance}$$

The variable component of the F-Score includes two things that can be seen in financial statements, namely accrual quality and Financial Performance. Accrual quality is proxied by RSST accrual (Richardson et al., 2004), namely:

$$RSST \text{ accrual} = (WC + NCO + FIN) / ATS$$

Where: WC (Working Capital) = Current assets - Current liabilities, NCO (Noncurrent Operating Accrual) = (Total assets - Current assets - Investment and advances) - Total liabilities - Current liabilities - Long term debt, FIN (Financial Accrual) = Total investment - total liabilities and ATS (Average total assets) = ((Beginning total assets - Ending total assets)/2).

Financial statement performance is considered capable of predicting the occurrence of fraudulent financial statements (Skosen and Twedt, 2009). Financial performance is proxied by changes in accounts receivable, changes in inventory accounts, changes in cash sales accounts, changes in EBIT, namely:

$$Financial \text{ performance} = \text{change in receivable} + \text{change in inventories} + \text{change in cash sales} + \text{change in earnings}$$

Where: change in receivable = (change receivable/average total assets), change in inventories = (change in inventories/average total assets), change in cash sales = (change in sales receivable/sales_t) - (change in receivables/receivables_t) and change in earning = (earning_t - earning_{t-1}) - (average total assets_t - average total assets_{t-1})

Independent Variable (X)

The independent variables in this study were arranged in accordance with five fraud risk factors in the Pentagon

Table 1. Statistical t-Test Results

Model	Standardized Coefficients		T	Sig.
		Beta		
1	(Constant)		-.457	.649
	ROA	.137	.972	.334
	LEV	-.023	-.164	.870
	BDOUT	.012	.102	.919
	AUDCHANGE	.173	1.456	.150
	BDCHANGE	.001	.008	.994
	CEOPIC	.031	.252	.802

Source: Processed by author

Theory Fraud proposed by Crowe Howarth, using financial and non financial ratios as follows:

- Pressure will be explained by (1) financial targets which are proxied by ROA, (2) external pressure which is proxied by the Leverage ratio,
 - Opportunity will be explained by ineffective monitoring as proxied by the ratio of independent commissioners.
 - Rationalization will be explained by Auditor change.
 - Competence will be explained by changes in directors.
 - Arrogance will be explained with frequent numbers of CEO's pictures.
- Then the variable is measured by measurement as follows.

Financial Target

ROA is a measure of operational performance that is widely used to show how efficiently an asset has worked. This variable can be measured by the formula:

$$ROA = \frac{\text{Net profit}}{\text{total assets}} \quad (\text{Skousen and Twedt, 2009})$$

External Pressure

External Pressure is excessive pressure for management to meet the requirements or expectations of third parties. This variable can be measured by comparing liabilities (debt) to total assets with the formula:

$$LEV = \frac{\text{Total Liabilities}}{\text{Total assets}} \quad (\text{Skousen and Twedt, 2009})$$

Ineffective Monitoring

Effective monitoring is a company situation where there is good internal control. This variable can be measured by the formula:

$$BDOUT = \frac{\text{number of independent commissioners}}{\text{total number of commissioners}} \quad (\text{Skousen and Twedt, 2009})$$

Auditor change

This research use the proxy of auditor change as rationalization of fraud theory. If the company stop the engagement of public accounting firm during the period of 2016-2018 is given code 1, and code 0 if the company stay with the same public accounting firm(Annisya et al., 2016).

Change in board of directors

Change in board of directors is measured by a dummy variable, code 1 if there is a change in directors in the company, code 0 if there is no change in directors(Husmawati et al., 2017).

Frequent number of CEO's picture

Frequent number of CEO's picture is measured by the total CEO photo that is displayed in an annual report(Husmawati et al., 2017).

ANALYSIS AND DISCUSSIONS

Hypothesis testing

Hypothesis testing is done to obtain valid data analysis results and support the hypotheses raised in this study. This hypothesis test is measured from the statistical value of t and the coefficient of determination.

Partial Regression Coefficient Testing (Statistical t-Test)

This test aims to show how far the influence of the independent variables individually has explained the dependent variable. The results of the statistical t test can be seen in Table 1 following:

This study uses regression coefficients as seen from standardized coefficients because the independent variables in this study consist of different measurement scales. The results of the statistical t test showed that all independent variables are positive, except for LEV. It means

Table 2. Determination Coefficient Test Results

model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.216 ^a	.047	-.034	.864111748

Source: Processed by author

that these variables have a positive relationship with financial statement fraud. The external pressure variable which has negative value means that it has negative relationship with fraudulent financial statement. The results of the statistical t test also showed that there is no any independent variable had a significant influence on financial statement fraud. A variable is said to have a significant effect if the Sig. <0.05, while each variable Sig. exceeds 0.05. Thus, no hypothesis is accepted, means that six hypotheses are rejected.

Coefficient of Determination (R²)

The coefficient of determination (R²) aims to measure how much influence the independent variable has on the dependent variable. The following are the results of the coefficient of determination test.

Based on Table 2 above, the value of R² is 0.047 or 4.7%. This value indicates that the dependent variable that can be explained by the independent variable is 4.7%. This means that 4.7% risk of financial statement fraud on infrastructure companies is influenced by financial targets, external pressure, ineffective supervision, change of auditors, change of directors, and the frequency of CEO images that appear in annual reports, while other 95.3% is influenced by other variables are not examined in this study.

RESULTING DISCUSSION

The results of the previous data analysis show that there is no independent variable that significantly influences the financial statement fraud. The presence or absence of influence of pentagon fraud on financial statement fraud is explained as follows.

Effect of Financial Targets on Financial Statement Fraud

The hypothesis testing found that financial target does not affect the fraudulent of financial statements or H1 is rejected. The test results from this ROA are in accordance with cognitive dissonance theory. In management accounting research, this theory provides an explanation regarding how beliefs and mental representations become intermediate media difficulties in budgeting and performance goals. (Birnberg et al., 2006) explains that when individuals have set goals for example budget or performance goals, commitment to achieve these goals more high when individuals choose more difficult budget

goals. These predictions are based on the assumption that effort needed to reach the goal is not easy. In this condition, the individual will experience cognitive dissonance so that it will reduce it by increasing positive commitment to the chosen goal.

From this theory it can be concluded that someone who has positive goals will not be bothered by cheating because of them will experience feelings that are uncomfortable and not in accordance with beliefs they. Companies that have individuals with goals like this will reduce the risk of cheating. Then, the company's financial targets are the higher will increase employee motivation to achieve it with positive beliefs and behavior.

This is because the possibility of an increase in ROA in banking companies in Indonesia is due to improve the quality of the company in order to be able to compete with other companies by creating new products according to customer needs and that makes it easier for customers. In addition, most banks in Indonesia have good human resources so they are able to keep abreast of market developments. In addition, the company will always hold fast to the principles of GCG without having to manipulate financial statements in order to increase value for shareholders.

This research is in line with research from Ulfah et al. (2017) that use the same sample category, that is financial sector companies. Ulfah et al (2017) said that good quality of human resources certainly will not be pressured because of the demands of financial targets. On the other side, the research of this study is not supported by the research conducted by Rukmana (2017) who found that financial target has significant effect on fraudulent financial statement.

Rukmana (2017) analyzed the manufacturing companies listed in IDX period 2012-2016 as the research sample, different from this research that analyzes the financial sector companies. It indicates that ROA becomes a fraud driver in the manufacturing companies compared to financial sector company in general. The other research which result is also in contrary with this research is the research conducted by Vivianita and Indudewi (2018) which analyzed the mining sector companies listed in IDX period 2014-2016. Therefore, it can be concluded that the difference of results may be related to the difference in sampling approach and the time of research.

Effect of External Party Pressure on Financial Statement Fraud

The results showed that the second variable, namely

external pressure do not affect financial statement fraud. Richardson et al (2004) explain that debt has a high level of reliability, both short-term and long-term debt. A debt account is a corporate obligation to creditors or suppliers that is recorded at face value. If the company is going concern, then usually the company must pay its debt. The only source of subjectivity for a debt account is the estimated discount for direct payments that may be offered by suppliers. The amount of each discount is usually verified by suppliers so that the possibility of an error is relatively small. One source of funding for companies is from financial institutions or banks. In addition to have credit procedures and policies, financial institutions also have a credit risk management system, a profile measurement system for each prospective debtor, and a database related to lending problems. Financial institutions also continue to strive to make strategies to mitigate credit risk so as to reduce pressure from external parties to commit financial report fraud (Wahyuningtias, 2016). If the level of liability is high it will make the management of the company more difficult in making predictions for the future. That is, the greater the debt the company has, the more stringent supervision by creditors, so management flexibility to commit fraud is reduced (Septriyan and Handayani, 2018). This shows that it is very difficult for financial companies to cheat financial statements in terms of debt, especially debt to other financial institutions.

In addition, the liabilities in financial sector companies are mostly consist of third-party funds or funds collected from customers. It can be concluded that the large amount of liabilities is not seen as pressure from external parties but more as the trust from customer on the performance of the financial companies.

This study is in line with research from Septriyan and Handayani (2017), where the result shows no significant effect on financial statement fraud in financial sector companies. Meanwhile, in the same study, external pressure has significant effect on fraudulent financial statement in manufacturing companies. The results of this study also differ from studies from Husmawati (2017) which have significant results from the effect of external pressure on financial statement fraud. Husmawati (2017) conduct her research on manufacturing companies. Therefore, it can be concluded that the difference of results may be related to the difference in sampling approach and the time of research.

Effect of Ineffective Monitoring on Fraudulent Financial Statements

The hypothesis testing found that ineffective monitoring does not affect financial statement fraud. Ineffective monitoring is a condition where there is no effectiveness of the company's internal control system (Tessa and Harto, 2016). Companies with a small number of independent commissioners will make internal supervision ineffective and lead to increasingly high fraud. This explanation is consistent with the results of the negative BDOU

coefficient where the less the ratio of the independent boards of commissioners, the higher the risk of financial statement fraud. However, the results of this study are only measured in proportions rather than in the regulation of the functions and roles of the independent commissioners in reducing the risk of financial statement fraud as explained by Harahap et al (2017). Therefore, a company with a small independent commissioner does not always have ineffective internal supervision, it is the role of the independent commissioner that gives the company the opportunity to cheat the financial statements or not.

This study is in line with Ulfah et al (2017) which also uses ineffective monitoring as a variable of opportunity. The results of the study showed insignificant results from the effect of ineffective monitoring on financial statement fraud. Ulfah, et al (2017) conduct the research on financial sector companies listed in IDX during the period 2011-2015. On the other hand, the results of this study are different from Christian (2019). The results of this study indicate that opportunity has a significant effect on financial statement fraud. Christian used the four variables to proxy opportunity, namely ineffective monitoring, nature of industry, BOD turnover, and multiple directorship. The effective monitoring is measured by the measurement from Hasnan et al. (2013) and Lokanan and Sharma (2018). This study also differs in terms of the sampling approach which consists of companies that are not engaged in the financial, property, real estate industry and/or construction industry.

Effect of Authors Change on Fraudulent Financial Statements

The fourth hypothesis stating that auditor turnover has a significant effect on financial statement fraud is rejected. Then, the change of auditor has no effect on financial statement fraud. Change of auditor can be considered to eliminate the fraud trail found by the previous auditor. However, the change of auditors is not always associated with fraud that the company is trying to cover up. Article 22 of Government Regulation Number 20 Year 2015 concerning the practice of public accountants, states that:

- For 1 (one) financial year can continue to provide audit services in a row for the next 4 (four) financial years.
- For 2 (two) financial years in a row can continue to provide audit services in a row for the next 3 (three) financial years.
- For 3 (three) financial years in a row can continue to provide audit services in a row for the next 2 (two) financial years.

Based on the explanation above it can be concluded that the limit on providing audit services is 5 years. Change of auditors may occur because the public accountant used by the company has expired his service. In addition, the change of auditors can be done as a result of companies who feel dissatisfied with the performance of the previous independent auditors, for example from the results of audits (Sihombing and Rahardjo, 2014).

The results of this study are in line with research from

Antawiryra et al. (2019). The similarities between the researches might be caused by the same sampling approach that includes financial sector companies. He stated that the reason of company's independent auditor turnover is not to cover the fraudulent company that has been detected but because 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 five consecutive years by the same public accounting firm.

However, the results of this study are different from the research from Ulfah et al. (2017) because Ulfah et al. (2017) conduct her research during the period 2011-2015. In 2015, there is a difference in the regulatory environment, since the regulation concerning the engagement period of independent auditor in Indonesia is Article 22 of Government Regulation Number 20 Year 2015 about the practice of public accountants which is effective as per April 2015. The former regulation allow independent auditor to be engaged for 6 consecutive years. Meanwhile, the latest regulation limit the engagement period only for 5 consecutive years. Therefore, it can be concluded that the difference of results may be related to the difference in the regulatory environment surrounding the analyzed companies at the time of research.

Effect of Directors Change on Fraudulent Financial Statements

The results of this study indicate that the fifth hypothesis which states that the change of directors has a significant effect on financial statement fraud is rejected. So, the change of directors has no effect on fraud in financial statements. Change of directors is not always an indication of fraud in the company. There are several factors that can underlie the change of the board of directors as stated in the applicable regulations or laws as follows.

Article 105 paragraph 1 of Government Regulation Number 40 of 2007 concerning Limited Liability Companies states that Members of the Board of Directors may be dismissed at any time based on a GMS decision by stating their reasons.

Article 8 paragraph 1 of the Regulation of the Financial Services Authority Number 33/POJK.04/2014 concerning Directors and Board of Commissioners of Issuers or Public Companies states that members of the board of directors may resign from their positions before their term ends.

Article 94 paragraph 3 of Government Regulation Number 40 of 2007 concerning Limited Liability Companies states that members of the board of directors are appointed for a certain period of time and may be reappointed. The term of office of the board of directors is set out in Article 3 paragraph 3 of the Regulation of the Financial Services Authority Number 33/POJK.04/2014 Regarding the Directors and Board of Commissioners of the Issuer or Public Company which reads "1 (one) term of service for members of the Board of Directors for a maximum of 5 (five) years or until the closing of the annual GMS at the end

of 1 (one) intended term of office ". The end of the directors' term of office allows the company through the GMS to appoint a new board of directors.

The results of this study contradict the research of Christian et al. (2019) due to the difference in terms of companies being the object of the research. Christian conducted the research on companies which are not engaged in the financial, property, real estate industry and/or construction industry. Meanwhile this study used the financial sector companies as sample. Board of directors in financial sector companies are different from other sector's because they are regulated and monitored specially by Financial Services Authority. Article 8 paragraph 1 of the Regulation of the Financial Services Authority Number 33/POJK.04/2014 concerning Directors and Board of Commissioners of Issuers or Public Companies states that members of the board of directors may resign from their positions before their term ends. The additional regulation may cause the difference in the result. However, this study is in line with research from Antawiryra et al. (2019). The results of the study showed that the change of directors had no significant effect on financial statement fraud.

Effect of Frequency of CEO picture on Financial Statement Fraud

The sixth hypothesis stated the frequency of appearance of the CEO's image has a significant effect on financial statement fraud is rejected. Previously, Yusof et al (2015) explained that the many pictures of CEOs showed themselves how to be known to the wider community and to treat themselves as celebrities because of their arrogant nature. This arrogance and arrogance can be categorized as one of the characteristics of narcissism. These criteria are in accordance with the criteria possessed in the arrogance element that is having a high ego so they want to be considered superior or celebrity which is a factor of arrogance. However, the number of CEO images in the annual report may not necessarily be a form of narcissism. The number of CEO images can be associated with positive things, namely self-confidence. Self-confidence is built on the basis of success and achievements, life skills that have been mastered, principles and norms held firmly, and the care shown to others (Quamila, 2017).

The results of this study do not prove that the large number of CEO images in the annual report has a significant effect on financial statement fraud. Ulfah et al. (2017) stated the same result for the variable CEO's picture. The study found that there is no significant influence of CEO's picture towards fraudulent financial statement. The photo included in the annual report is a photo of the results of the activity, if the photo of the CEO is displayed in the activity proves that the CEO participates in every activity carried out by the company.

However, the results of this study differ from studies from Bawekes et al. (2018) because population in the research conducted by Bawekes et al. (2018) is all companies listed between 2011 and 2015 in Indonesia

Stock Exchange. The result is different because this study uses the financial sector companies as the research object. Directors as the CEO in financial sector companies are supposed to be more prudent in their actions because they are regulated and monitored specially by Financial Services Authority.

CONCLUSIONS AND REMARKS

Conclusion

Based on the problem formulation, objectives, theoretical basis, hypotheses, and test results in this study, it can be concluded that the fraud pentagon theory cannot explain the motives of fraud doers in financial sector companies. ROA, LEV, BDOU, AUDCHANGE, DCHANGE, and CEOPIC didnot influence fraudulent financial reporting on financial sector companies listed in IDX 2016-2018. Therefore, fraud pentagon analysis using the quantitative approach from financial statement cannot be used to detect the misconduct practice done by management. It can be concluded that pentagon fraud proxied by a number of independent variables under this study is not suitable to be used in assessing financial statement fraud. This is due to the independent variables that are used as proxies for each element of the pentagon fraud that is more focused on human behavior so it is not directly related to financial report data.

Limitation

This research still has some limitations, but this research has been carried out with existing scientific research procedures. The following are the limitations contained in this study. This study uses the dependent variable as measured by the F-Score and independent variables namely financial targets, external pressure, ineffective monitoring, change of auditors, change of directors, and frequency of appearance of CEO picture. Meanwhile, there are many other ways to measure financial statement fraud and there are still many variables that can influence financial statement fraud. This study only used a sample of 26 financial companies over a three-year period because many companies did not present some of the information needed in this study.

Suggestion

Based on the limitations in this study, the authors provide several suggestions that can be done to get maximum results. Further researchers are advised to use other measurement tools from financial statement fraud such as M-Score and Earning Management. Other variables that can also be used for example the quality of external auditors, institutional ownership, and CEO politicians. Further researchers are advised to expand the population not only to financial sector companies, but can use other sectors

such as manufacturing, real estate, or other sectors.

REFERENCES

- ACFE. (2018). 2018 Global Study on Occupational Fraud and Abuse. US.
- Akbar T (2017). The Determination of Fraudulent Financial Reporting Causes by Using Pentagon Theory on Manufacturing Companies in Indonesia. *Int. J. Bus. Econ. Law*, 14(5):106-113.
- Annisya M, Lindrianasari, Asmaranti Y (2016). Pendeteksian Kecurang Laporan Keuangan Menggunakan Fraud Diamond. *J. Bisnis Dan Ekonomi*, 23(1):72-89.
- Antawira RDEP, Putri IGAMD, Wirajaya IGA, Suaryana IGNA, Suprasto HB (2019). Application of Fraud Pentagon in Detecting Financial Statement Fraud. *Int. Res. J. Manag. IT & Social Sciences*, 6(5):73-80.
- Aprilia. (2017). Analisis Pengaruh Fraud Pentagon Terhadap Kecurangan Laporan Keuangan Menggunakan Beneish Model pada Perusahaan yang Menerapkan Asean Corporate Governance Scorecard. *J. Akuntansi Riset*, 9(1):101-132.
- Apriliana S, Agustina L (2017). The Analysis of Fraudulent Financial Reporting Determinant through Fraud Pentagon Approach. *J. Dinamika Akuntansi*, 9(2):154-165.
- Bawekes HF, Simanjuntak AMA, Daat SC (2018). Pengujian Teori Fraud Pentagon Terhadap Fraudulent Financial Reporting. *J. Akuntansi & Keuangan Daerah*, 13(1):114-134.
- Birnberg, Jacob G, Luft, Joan, Shields, Michael D (2006). *Psychology Theory in Management Accounting Research*. Handbook of Management Accounting Research. Elsevier. Tersedia di Academia:
- Cressey DR (1953). *Other people's money; a study of the social psychology of embezzlement*. New York, NY, US: Free Press. Retrieved September 7th, 2019 from <https://psycnet.apa.org/record/1954-06293-000>
- Dechow PM, Hutton AP, Kim JH, Sloan RG (2012). Detecting Earnings Management: A New Approach. *J. Accounting Res.*, 50(2):275-334.
- Foster School of Business. (2010). *Financial Profiling: F-Score Can Detect Accounting Fraud*. Retrieved December 28th 2019 from <https://foster.uw.edu/>.
- Government Regulation Number 20 Year 2015.
- Government Regulation Number 40 Year 2007.
- Harahap DAT, Majidah, Triyanto DN (2017). Pengujian Fraud Diamond Dalam Kecurangan Laporan Keuangan (Studi Kasus Pada Perusahaan Pertambangan yang terdaftar di Bursa Efek Indonesia tahun 2011-2015). *eProceeding of Management*, 4:420-427.
- Horwarth C (2011). Why the fraud triangle is no longer enough. *Crowe LLP*. Retrieved September 7th, 2019 from <http://aiba-us.org/wpcontent/uploads/2011/04/20100922AIBAFraud.pdf>
- Husmawati P, Septriani Y, Rosita I, Handayani D (2017).

- Fraud Pentagon Analysis in Assessing the Likelihood of Fraudulent Financial Statement (Study on Manufacturing Firms Listed in Bursa Efek Indonesia Period 2013-2016). *International Conference of Applied Science on Engineering, Business, Linguistics and Information Technology*, October, 13–15.
- Iqbal M, Murtanto (2016). Analisa Pengaruh Faktor-Faktor Fraud Triangle Terhadap Kecurangan Laporan Keuangan pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia. Seminar Nasional Cendekiawan 2016p, 17.1-17.20.
- Kothari SP, Leone AJ, Wasley CE (2005). Performance Matched Discretionary Accrual Measures. *J. Accounting Econ.*, 39(1):163–197.
- Marks J (2012). The Mind Behind The Fraudsters Crime: Key Behavioral And Environmental Elements. *Crowe Horwarth LLP*. Retrieved September 7th, 2019 from https://www.fraudconference.com/uploadedFiles/Fraud_Conference/Content/Course-Materials/presentations/23rd/ppt/10C-Jonathan-Marks.pdf
- Oktafiana NF, Nisa K, Sari SP (2019). Analisis Fraud Laporan Keuangan Dengan Wolfe & Hermanson 's Fraud Diamond Model pada Perusahaan LQ45 di Bursa Efek Indonesia. Seminar Nasional Dan Call for Paper-2019, 5, 246–258.
- Quamila, Ajeng. (2017). Bedanya Narsis dan Narcissistic Personality Disorder. Retrieved December 12th 2019 from <https://hellosehat.com/hidup-sehat/psikologi/beda-narsis-dengannarcissistic-personality-disorder/>.
- Regulation of the Financial Services Authority Number 33/POJK.04/2014 Regarding the Directors and Board of Commissioners of the Issuer or Public Company.
- Saputra MAR, Kesumaningrum ND (2017). Analisis Faktor – Faktor yang Mempengaruhi Fraudulent Financial Reporting dengan Perspektif Fraud Pentagon pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2011-2015. *J. Akuntansi Dan Keuangan*, 22(2):121–134.
- Sekaran U (2003). *Research Methods for Business: A Skill-Building Approach* (4th ed.). New York: John Wiley & Sons.
- Septriani Y, Handayani D (2018). Mendeteksi Kecurangan Laporan Keuangan dengan Analisis Fraud Pentagon . *J. Akuntansi, Keuangan Dan Bisnis*, 11(1):11–23.
- Sihombing KS, Rahardjo SN (2014). Analisis Fraud Diamond Dalam Mendeteksi Financial Statement Fraud : Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun (BEI) Tahun 2010 - 2012. *Diponegoro J. of Accounting*, 3(2):1–12.
- Skousen CJ, Twedt BJ (2009). Fraud Score Analysis in Emerging Markets. *J. Cross Cultural Management*, 16(3):301–316.
- Tessa C, Harto P (2016). Fraudulent Financial Reporting: Pengujian Teori Fraud Pentagon Pada Sektor Keuangan&Perbankan Di Indonesia. *Simposium Nasional Akuntansi XIX*, Lampung 1–21.
- Ulfah M, Nuraina E, Wijaya AL (2017). Pengaruh Fraud Pentagon dalam Mendeteksi Fraudulent Financial Reporting (Studi Empiris pada Perbankan di Indonesia yang Terdaftar Di BEI). *Forum Ilmiah Pendidikan Akuntansi*, 5(1):399–417.
- Vivianita A, Indudewi D (2018). Financial Statement Fraud pada Perusahaan Pertambangan yang Dipengaruhi oleh Fraud Pentagon Theory (Studi Kasus di Perusahaan Tambang yang Terdaftar Di BEI). *J. Dinamika Sosial Dan Budaya*, 20(1): 1–15.
- Wahyuninngtias F (2016). Analisis Elemen-elemen Fraud Diamond Sebagai Determinan Finansial Statement Fraud Pada Perusahaan Perbankan di Indonesia. Tesis. Universitas Airlangga.
- Wolfe DT, Hermanson DR (2004). The Fraud Diamond : Considering the Four Elements of Fraud. *CPA J.*, 12:38–42.
- Yendrawati R, Aulia H, Prabowo HY (2018). Detecting The Likelihood of Fraudulent Financial Reporting: An Analysis of Fraud Diamond. *Asia-Pacific Manag. Accounting J.*, 14(1):43–68.
- Yulianti, Pratami SR, Widowati YS, Prapti L (2019). Influence Of Fraud Pentagon Toward Fraudulent Financial Reporting In Indonesia An Empirical Study On Financial Sector Listed In Indonesian. *Int. J. Sci. Technol. Res.*, 8(08):237–242.
- Yusof KM, Khair AHA, Simon J (2015). Fraudulent Financial Reporting: An Application of Fraud Models to Malaysian Public Listed Companies. *The Macrotheme Review. A Multidisciplinary J. Global Macro Trends*, 4(3):126-145.
- Zaki NM (2017). The Appropriateness of Fraud Triangle and Diamond Models in Assessing the Likelihood of Fraudulent Financial Statements-An Empirical Study on Firms Listed in the Egyptian Stock Exchange. *Int. J. Soc Sci. Econ. Res.*, 02(02):2403–2433.

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