

# Pentagon Fraud Analysis in Detecting Potential Financial Statement Fraud of Banking Companies in Indonesia

Erna Hidayah\*, Galih Devi Saptarini

Accounting Department Universitas Islam Indonesia

\*Corresponding author: [erna.hidayah@uii.ac.id](mailto:erna.hidayah@uii.ac.id)

---

## Abstract

This study aims to determine the potential for financial statement fraud by using pentagon fraud analysis. Pentagon fraud is a concept that explains the factors that cause someone to commit fraud, namely pressure, opportunity, rationalization, capability, and arrogance. In this study, the pressure factor is proxy by using financial targets and external pressure. The opportunity factor is proxied by using the nature of industry and effective monitoring. The rationalization factor is proxied by using a change in auditor. The capability factor is proxied by using change in directors. Finally, the arrogance factor is proxied by using the frequent number of CEO's picture. This study uses the F-Score Model to see the potential for fraudulent financial statements. The sample in this study were 33 banking companies listed on the Indonesia Stock Exchange in 2013-2017 that met certain criteria. The analysis technique used is panel data regression analysis and hypothesis testing using the t test. The results of this study indicate that the financial target and change in directors variables are proven to have a significant positive effect in detecting the potential for financial statement fraud, but the external pressure and nature of industry variables have a negative effect in detecting the potential for financial statement fraud. While the effective monitoring variable; change in auditor, and frequent number of CEO's picture has no effect in detecting potential fraudulent financial statements.

Keywords: fraud pentagon, f-score, potential fraudulent financial statements

---

## Introduction

Financial statements are a reflection of the condition of a company, because in the financial statements there are various kinds of financial information needed by various interested parties, those parties come from inside and outside the company. The financial information is used by users of financial statements for various purposes. Therefore, the information contained in financial statements must describe the accounting processes contained in the company as a whole and meet the qualitative characteristics of financial information, namely relevance, reliable, completeness, timeliness, understandability, verifiability, and accessible (Romney, Marshall B. and Steinbart (2012).

In preparing the financial statements, the company tries to show its best performance in order to get good impressions and assessments from various interested parties, this can be the main motivation of management to make various manipulations in certain parts so that the company can be valued well. Manipulation of financial statements is an act of fraud that can harm various stakeholders (Septriani and Handayani, 2018).

According to ACFE publication (2016) "Report to the Nations on Occupational Fraud and Abuse - World Edition" contains research on 2,410 cases of fraud in the world, stating that cases of fraud in financial statements from 2012 to 2016 continue to increase. In 2016 and 2018, the results of the ACFE survey showed the fact that the banking and financial services sector was the company with the most fraud.

This study uses Crowe's fraud pentagon theory (2010) to detect potential fraud on financial statements. The use of fraud pentagon in this study, because this theory is the most complete way to detect fraud, it is expected that the detection of potential financial statement fraud can be more accurate.

## **Literature Review**

### **Agency Theory**

Agency theory explains the relationship between principle and agent. This agency relationship arises when the principal recruits an agent to be able to make a contribution to the company, and the agent is given authority by the principal in making decisions and must be accountable for everything that has been done, especially financial responsibilities as outlined in the financial statements.

The agency relationship is contained in a contract between the investor and manager. The agreed contract is an opportunity for conflict of interest between the investor and manager. This happens because investors have the main interest to receive a large return from the investment that has been made and hope the manager is able to realize these key interests, so that when the main desires are realized investors will reward the manager. On the other hand the manager as the manager has several interests, including wanting to improve his welfare, one of which is through getting rewards in the form of bonuses from investors for his contribution to the company. Therefore, managers will make various efforts so that their performance gets an impression and good judgment in the eyes of investors.

### **Financial Statement Fraudulent**

Fraudulent financial statements according to Rezaee and Riley (2009) are unethical actions carried out consciously by a person or group of people in a company, by providing financial information that contains elements of falsehood so as to mislead the users of financial statements, especially investors and creditors. In SAS No. 99 stated that fraud is a deliberate act that affects material misstatement in the financial statements.

ACFE (2018) states that there are 2 ways in which perpetrators of financial statement fraud. First, overstatement of asset and or revenue accounts. Overstatement is the presentation of a particular account that is higher than it really is, this is done so that the company's financial performance looks good so that investors and creditors are more confident with the company's going concern. Second, understatement of account liabilities and or expenses. Understatement is the presentation of certain accounts that are lower than it really is, it aims to minimize the company's obligations in paying state taxes or other obligations.

### **Fraud Triangle Theory**

Fraud triangle theory proposed by Cressey (1953) in Skousen et al (2008) is a theory that first explains the factors that cause a person to commit financial statement fraud so that it can be used as a potential detector of financial statement fraud. There are 3 elements that cause a person to commit financial statements fraud namely pressure, opportunity, and rationalization.

### **Fraud Diamond Theory**

Fraud diamond theory proposed by Wolfe and Hermanson (2004) is a development of fraud triangle theory. This theory adds one factor, namely capability. So this theory states that there are 4 factors that cause a person to commit fraud (pressure, opportunity, rationalization, and capability).

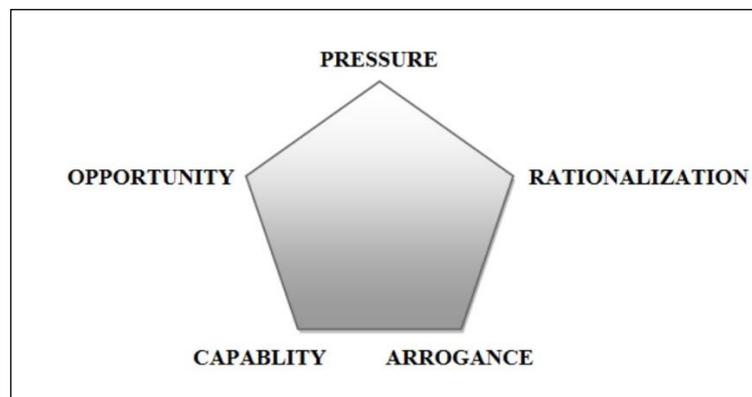
### **Fraud Pentagon Theory**

The most recent theory that reveals more about the factors that can detect fraud is the pentagon fraud theory. This theory was revealed in 2010 by Jonathan Marks, one of the partners in charge of fraud and ethics practice at Crowe Horwarth LLP, which is one of the largest public accounting firms and consultants in the United States. This pentagon fraud theory is a development of the fraud triangle theory previously proposed by Cressey in 1953.

In this theory, two elements of fraud were added, namely competence and arrogance. The competence expressed in this pentagon fraud theory has almost the same meaning as the capability

described by Wolfe and Hermanson in 2004. Competence is a person's ability to commit fraud. While arrogance is the character of someone who feels that he has power over everything in the company, by ignoring the internal controls that exist in his company, developing fraud strategies, and overseeing social situations that will make his personal profit (Crowe, 2011).

**Picture 1** Fraud Pentagon



### **The Effect of Financial Target on the Potential Financial Statement Fraud**

Financial targets are monetary achievements that must be fulfilled by a manager in one period. These demands can lead to pressure on a manager. It can make a loophole for managers to manipulate financial statements so that their performance looks in accordance with the targets set.

In the study of Skousen et al (2008), financial target variables are measured using Return on Assets (ROA). Return on Assets (ROA) is used to show how much the rate of return of assets against the profits generated by the company, so companies use ROA as a measurement tool to assess the performance of managers of a company. In addition, ROA can also be used to find out how efficiently an asset has worked. The higher the ROA target in a company, the higher the potential for fraudulent financial statements carried out through earnings management. When ROA targets are high, management will strive to achieve this target. When the realization of ROA shows a value below the target it will encourage management to raise profits in the financial statements. Therefore in this study the financial target variable is calculated by ROA.

Research conducted by Akbar (2017) and Septriani and Handayani (2018) shows that financial targets have a significant positive effect on the potential for fraudulent financial statements. Based on the description, the hypothesis used in this study is:

H1: Financial Target has a positive effect on the potential for fraudulent financial statements

### **The Effect of External Pressure on the Potential of Financial Statement Fraud**

External pressure is a condition where an entity gets pressure from an outside party. One example of an external pressure that occurs in a company is when a company looks for sources of funding to improve operational and non-operational performance through loans to creditors. But what is feared for every company is the difficulty of meeting the requirements of creditors and paying off debt when they are due. One of the conditions given by creditors is that the company must display financial performance and is believed to be able to repay the loan. This is what drives managers to manipulate (Skousen et al, 2008)

In the study of Skousen and Twedt (2009) external pressure variables are measured using a leverage ratio. Leverage ratio can be calculated by total debt divided by total assets (debt to assets ratio). Leverage ratio shows how much debt the company has to creditors. The high value of the leverage ratio shows that the debt held by the company is of large value to creditors. This creates pressure for the company, because it shows the risk of default is also high. So that it can create a gap for managers to manipulate financial statements in the total debt. The higher the value of the

leverage ratio, means the higher the total debt owned by the company, and the higher the potential for fraudulent financial statements by managers in the total debt.

Research conducted by Skousen and Twedt (2009), Indarto & Ghozali (2016), Zaki (2017), Akbar (2017) and Septriani and Handayani (2018) which states that external pressure calculated using LEV has a significant positive effect on potential fraud financial statements. Based on the description, the hypothesis used in this study is :

H2: External Pressure has a positive effect on the potential for fraudulent financial statements

### **Effect of Nature of Industry on Potential Financial Statement Fraud**

Nature of industry is the ideal situation and condition of a company in an industrial environment. The nature of industry can create a gap for companies to commit fraudulent financial statements. The vulnerability arises because of industry regulations that require companies to have subjective justification capabilities in calculating estimates on certain accounts. Summers and Sweeney (1998) state that receivables and inventories require subjective valuation and must be watched out because they are often the object of manipulation of financial statements. In this study the nature of industry variable is more focused on accounts receivable because the object of this study uses a banking company where the banking company does not have an inventory account. Management will try various ways so that assets look high, one of the shortcuts is manipulating the value of assets in the financial statements. In a banking company, accounts receivable has a significant value of total assets. So this account is prone to become manipulated objects (Ardiyani and Utaminingsih 2015).

In line with research by Kurnia and Anis (2017), Putriasih, Herawati, and Wahyuni (2016), as well as Sihombing and Rahardjo (2014), and stated that the nature of industry has a significant positive effect on financial statement fraud. The higher the value of the ratio of changes in the total receivables of a company, the potential for cheating financial statements will be higher. Based on the description, the hypothesis used in this study is as follows:

H3: Nature of Industry has a positive effect on the potential for fraudulent financial statements

### **Effect of Effective Monitoring on Potential Financial Statement Fraud**

Companies that have a good monitoring system can reduce the potential for the practice of fraudulent financial statements conducted by agents (Andayani 2010). To oversee management performance directly, investors entrust it to the board of commissioners. The board of commissioners has the role to oversee management in making business decisions, ensure the realization of the company's strategy, and ensure the realization of financial accountability at the company.

The board of commissioners is classified into two types namely the envoy board of commissioners and the independent board of commissioners. Board of commissioners delegates are board of commissioners who have a close (affiliated) relationship with investors and/or directors in the company. Whereas an independent board of commissioners is a board of commissioners elected based on the decision of a general meeting of shareholders (GMS), on condition that it is not affiliated with any party, especially investors, directors or other commissioners. It is intended to maintain the professionalism and independence of the board of commissioners in monitoring management performance. According to Beasley and Salterio (2001), to increase the effectiveness of the board of commissioners in overseeing management performance, companies are advised to include an independent board of commissioners in the board of commissioners.

Nurmulina and Sasongko's research results (2017) stated that effective monitoring is calculated using the ratio of independent board of commissioners compared to the total board of commissioners which has a significant negative effect on financial statement fraud. Based on the description, the hypothesis used in this study is as follows:

H4: Effective Monitoring has a negative effect on the potential for fraudulent financial statements.

### **The Effect of Change in Auditors on the Potential of Financial Statement Fraud**

Rationalization is the attitudes and behaviors that arise from the mind of someone who justifies crime, cheating and fraud he committed (Suyanto, 2009). Rationalization can cause someone who initially did not have the intention to commit fraud, turned into committing such fraud and considered it normal. Rationalization will continue to occur when there are repeated audit failures. Audit failures can occur when there is a change of auditors in a company (Skousen et al 2008). The reason, the new auditor still did not understand the overall condition of the company. So there is fraud committed by management that is not detected by external auditors. Therefore, management will continue to commit financial reporting fraud and consider it to be natural because the fraud is not an external auditor's findings.

Research conducted by Loebbecke, Eining, and Willingham (1989), explains that the majority of audit failures occur more frequently in the early years of the audit engagement period. So that the potential for fraudulent financial statements by management will be higher as companies increasingly make external auditor changes

The results of a study conducted by Septriani and Handayani (2018) stated that rationalization had a significant positive effect on financial statement fraud. Based on the description, the hypothesis used in this study is as follows:

H5: Change in Auditor has a positive effect on the potential for fraudulent financial statements

### **The Effect of Changes in Directors on the Potential of Financial Statement Fraud**

According to Wolfe and Hermanson (2004) capability is the ability of a person to commit fraud in order to realize certain goals. The main factor that can be seen by the general public to judge that the person has considerable capability is positioning. Positioning is the position, position and function of a person in the company making it a gap to commit fraud. Therefore, the position of top management is considered the most reliable way to prevent or even commit fraud.

Change of directors (director change) is the delegation of duties and authority from the old board of directors to the new board of directors with the aim to improve the performance of the previous directors. This shows that the performance of the old directors was not good/considered unsatisfactory and could indicate fraud in the financial statements. Change of directors is said to be successful when the new directors can prevent and reduce fraud in financial statements. Conversely, if the new directors cannot prevent and reduce fraudulent financial statements in the company, the change of directors is declared a failure. Even worse, if the new director uses his ability to commit fraud.

The results of research conducted by Manurung and Hardika (2015) and Septriani and Handayani (2018) who used the object of manufacturing company research stated that Capability calculated using The Changes of Directors had a significant positive effect on financial statement fraud. Based on the description, the hypothesis used in this study is as follows:

H6: Changes in Directors has a positive effect on the potential for fraudulent financial statements

### **The Effect of Frequent Number of CEO's Picture on Potential of Financial Statement Fraud**

Arrogance is the character of someone who feels that he has power over everything in the company. This character can cause someone to dare to commit acts of fraud because he has the assumption that internal control and regulations imposed in the company will not apply to him. Arrogance variables can be measured by identifying the number of CEO's pictures. The number of CEO's pictures is the number of depictions of a CEO in a company by displaying a photo profile and/or other information about the CEO track record that is displayed repeatedly in the company's annual report (Crowe, 2011)

Based on research conducted by Simon et al (2015), from the photos displayed in the company's annual report can present the level of arrogance and superiority that the CEO has. CEO feels that any internal control will not apply to him because he has a status and position that

he thinks is important in the company, that is what causes a high level of arrogance that allows fraud in a company. In addition, the CEO will justify any means to maintain his current position and position. The more CEO photos contained in the company's annual report, the higher the potential for fraudulent financial statements in the company.

In the research of Tessa (2016) and Nurmulina and Sasongko (2017), the number of CEO's picture has a significant positive effect in detecting fraudulent financial statements. Based on the description, the hypothesis used in this study is as follows:

H7: Frequent number of CEO's Picture has a positive effect on the potential for fraudulent financial statements.

## Research Methods

### Population and Sample

The population in this study are banking companies listed on the Indonesia Stock Exchange in 2013 - 2017. The criteria used in selecting this sample are as follows:

- 1) Publish annual financial statements on the company's website or the Indonesia Stock Exchange website for the period 2013-2017.
- 2) Disclose data relating to research variables and be available in full in publications during the 2013-2017 period.
- 3) Not deleting from the Indonesia Stock Exchange during the 2013-2017 period.

### Research Variable

#### Dependent variable

The dependent variable in this study is the potential for financial statement fraud. Just like the research conducted by Dechow et al (2009), this study uses the F-score model to detect financial statement fraud. The F-Score model calculation is obtained from the sum of two components, namely accrual quality and financial performances which can be seen in financial statements (Skousen and Twedt 2009), can be formulated with the following equation:

$$F - Scores = Accrual Quality + Financial Performances$$

According to Richardson et al (2005), accrual quality is calculated by RSST' accrual (Richardson, Sloan, Soliman, and Tuna). This calculation includes all changes in current assets (except cash) and non-equity as accruals contained in the statement of a company's financial position. In addition, the calculation of RSST' accruals can also classify working capital (WC), non-current operating (NCO), and financial accruals (FIN) in accordance with the characteristics of its reliability, as well as assets and liabilities according to the type of accruals (Rini and Achmad, 2012). The form of the formula is as follows:

$$RSST\ accrual = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{Average\ Total\ Assets}$$

Where :

- *WC* = (Current Assets - Current Liability)
- *NCO* = (Total Assets - Current Assets - Investment and Advances) - (Total Liabilities - Current Liabilities - Long Term Debt)
- *FIN* = (Total Investment - Total Liabilities)
- *Average Total Assets* = (Beginning Total Assets + End Total Assets)/2

According to Skousen and Twedt (2009) the potential for financial statement fraud can be predicted using a financial performance formula that can be seen in a financial statement. Financial performance can be calculated by adding up changes in accounts receivable (change in receivables), changes in inventory accounts (change in inventories), changes in cash sales accounts (change in cash sales), and changes in earnings before interest and taxes (change in earnings) which can be formulated through the following equation:

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

Where :

$$\text{Change in receivables} = \frac{\Delta \text{Receivables}}{\text{Average Total Assets}}$$

$$\text{Change in inventories} = \frac{\Delta \text{Inventories}}{\text{Average Total Assets}}$$

$$\text{Change in cash sales} = \frac{\Delta \text{Sales}}{\text{Sales (t)}} - \frac{\Delta \text{Receivables}}{\text{Receivables (t)}}$$

$$\text{Change in earnings} = \frac{\text{Earnings (t)}}{\text{Average Total Assets (t)}} - \frac{\text{Earnings (t-1)}}{\text{Average Total Assets (t-1)}}$$

Companies that have a F-score model value of more than 1 means that the company has the potential to commit fraud on the financial statements, whereas if the F-score model value is less than 1, the company has no potential to commit fraud on the financial statements.

### Independent variables

Independent variables in the study consisted of financial targets, external pressure, nature of industry, effective monitoring, rationalization, capability, arrogance. Measurement of the independent variables, explained in the following table.

**Table 1.** Independent Variables

Independent Variabel	Measurement
Financial Target	ROA = earning after interest and tax/Total assets
External Pressure	Leverage = Total debt/Total assets
Nature of Industry	Receivable = $\frac{\text{Receivable (t)}}{\text{Sales (t)}} - \frac{\text{Receivable (t-1)}}{\text{Sales (t-1)}}$
Effective Monitoring	$BDOUT = \frac{\text{Total independent Boards}}{\text{Total Boards}}$
Rationalization	Dummy variable : code 1 if there is an KAP change, and 0 if there is no change.
Capability	Dummy variable : code 1 if there is a director change, and 0 if there is no change
Arrogance	Number of CEO photos displayed in the annual report

## Results and Discussion

### Overview of Research Objects

There were 38 banking sector companies that met the sample criteria during the 2013-2017 period. The data were used for five years, so that the total sample was 190. After going through the data processing stage, there were 25 data outliers, so the total sample amounted to 165.

## Descriptive Statistics Analysis

Descriptive statistical analysis was carried out to provide a description or data description of the variables in the form of the amount of data, the maximum value, the minimum value, the average, and the standard deviations used in the study (Widarjono, 2015). The table of descriptive statistical analysis results is as follows:

**Table 2.** Descriptive Statistics

Variable	n	Minimum	Maximum	Sum	Mean	Std. Deviation
F-SCORE	165	-1,54	0,76	-4,86	-0,03	0,34
ROA	165	-0,12	0,04	1,10	0,01	0,02
LEV	165	0,61	1,21	141,28	0,86	0,06
RECEIVABLE	165	-9,68	17,21	73,76	0,45	3,09
BDOUT	165	0,00	1,00	94,75	0,58	0,12
NUMBER OF CEO'S PICTURES	165	1,00	31,00	11173,00	7,11	6,41

The results showed that:

- 1) The dependent variable is the potential for financial statement fraud that is measured using the F-SCORE indicator showing an average value of -0.03. The standard deviation that describes the level of data variation in the F-SCORE indicator is 0.34. The minimum value of -1.54, namely Bank Agris Tbk in 2014. While the maximum value of 0.76, namely the Bank of India Indonesia Tbk in 2015.
- 2) The financial target variable measured using the ROA indicator has a minimum value of -0.12, namely Bank of India Indonesia Tbk in 2016. While the maximum value of 0.04, namely Bank Mestika Dharma Tbk in 2013. The average value of research results is an average of 0.01 with a standard deviation of 0.02 which indicates the level of data variation from financial target variables.
- 3) The external pressure variable measured using the LEV indicator shows a minimum value of 0.61, namely Bank Ina Perdana Tbk. While the maximum value is 1.21, namely Bank Bukopin Tbk. During the 5-year study period with 165 samples produced an average of 0.86. This figure shows that the average proportion of the company's debt to assets owned or debt owned by the company to creditors is 86% of total assets. The figure is said to be quite high and is able to indicate a high risk of default. For a standard deviation of 0.06, it indicates the degree of variation in data from the external pressure variable.
- 4) Nature of industry variable with RECEIVABLE indicator shows a minimum value of -9.68, namely Bank of India Indonesia Tbk. While the maximum value is owned by Bank Agris Tbk with a value of 17.21, meaning that the value of current year's receivables is greater when compared to the value of last year's receivables. Average overall ratio of 0.45. The standard deviation of this variable is 3.09 which shows the level of data variation from the variable nature of industry.
- 5) The effective monitoring variable with the BDOUT indicator shows a minimum value of 0.00, namely Bank Bumi Arta which does not have an independent board of commissioners. While the maximum value is 1, namely Bank MNC International Tbk and Bank Maspion Indonesia Tbk, a company that compares the independent board of commissioners with a total board of commissioners of 1: 1. The average BDOUT indicator is 0.58. Standard deviation is a description of the level of variation in the data so that the level of variation in the BDOUT indicator data is 0.12.
- 6) Arrogance variables measured using the Number of CEO's Pictures indicator show a minimum value of 1.00, meaning that there is only 1 photo displayed in the company's annual report. While the maximum value is 31.00. The average Number of CEO's Picture indicator is 7.11. And the standard deviation of the Number of CEO's Picture indicator is 6.41.

**Table 3.** Descriptive Statistics for Dummy Variables

Variabel	n	Dummy Variables	
		1	0
AUDCHANGE	165	15,76 %	84,24 %
DCHANGE	165	60,00 %	40,00 %

- 7) Companies that change auditors are 15.76% and 84.24% of companies did not make auditor changes.
- 8) Companies that make change of directors were 60%, and 40% did not.

### Panel Data Regression Analysis

Analysis of the results of this regression explains the results of the regression and tested with the requirements that have been determined to get the best model so that it can explain the problem to be answered and in accordance with the research objectives. Panel data regression was tested using three approaches, namely the common effect model, fixed effect model, and random effect model. Based on the results of data processing it is concluded that the right model used is the fixed effect model.

### Hypothesis Testing

Testing the regression hypothesis by comparing the results of the coefficient test in the significance column with the significance value used = 5%. If the significance level < 0.05, then the hypothesis is supported by the data. If the significance level > 0.05 then the hypothesis is not supported by data. The following is the result of the t test and its interpretation:

**Table 4.** Results of Regression Models

Hypothesis	Description	Coefficient	Prob.	Result
H <sub>1</sub>	Financial Target has a positive effect on the potential for fraudulent financial statements	1.767469	0.0209	Supported
H <sub>2</sub>	External Pressure has a positive effect on the potential for fraudulent financial statements	-1.177056	0.0000	Not Supported
H <sub>3</sub>	Nature of Industry has a positive effect on the potential for fraudulent financial statements	-0.098999	0.0000	Not Supported
H <sub>4</sub>	Effective Monitoring has a negative effect on the potential for fraudulent financial statements	0.081092	0.4985	Not Supported
H <sub>5</sub>	Change in Auditor has a positive effect on the potential for fraudulent financial statements	-0.029837	0.2955	Not Supported
H <sub>6</sub>	Changes in Directors has a positive effect on the potential for fraudulent financial statements	0.050465	0.0360	Supported
H <sub>7</sub>	Frequent number of CEO's Picture has a positive effect on the potential for fraudulent financial statements	-0.001347	0.5027	Not Supported

### **The effect of financial targets on the potential of financial statement fraud**

Financial target variable measured by ROA has a coefficient of 1.767469 and a probability value of 0.0209, which means less than 0.05. This value means that the financial target has a significant positive effect on the potential for fraudulent financial statements. The higher the value of the ratio of EAT/net income to total assets in a company which means the higher the company's financial targets, the higher the potential for fraudulent financial statements. So it can be concluded that hypothesis 1 is supported. The results of this study support research conducted by Sihombing (2014), Tiffani (2015), Tessa (2016), Akbar (2017), and Septriani (2018).

### **The effect of external pressure on the potential of financial statement fraud**

The external pressure variable measured by LEVERAGE has a coefficient of -1.177056 and a probability value of 0.00, which means less than 0.05. This value means that external pressure has a significant negative effect on the potential for fraudulent financial statements. The higher the value of the ratio of total debt to total assets in a company, which means the higher external pressure, the lower the potential for fraudulent financial statements. So it can be concluded that hypothesis 2 is not supported. The results of this study support research conducted by Septriani and Handayani (2018).

### **Effect of nature of industry on the potential of financial statement fraud**

The nature of industry variable measured by RECEIVABLE has a coefficient of -0.098999 and a probability value of 0.00, which means less than 0.05. This value means that the nature of industry has a significant negative effect on the potential for fraudulent financial statements. The greater the value of the accounts receivable turnover ratio in a company which means the higher the nature of the industry, the lower the potential for fraudulent financial statements. So it can be concluded that hypothesis 3 is not supported.

The results of this study support research conducted by Sihombing and Rahardjo (2014), Putriasih, Herawati, and Wahyuni (2016), and Kurnia and Anis (2017).

### **The effect of effective monitoring on potential of financial statement fraud**

Variable effective monitoring as measured by BDOU has a coefficient of 0.081092 and a probability value of 0.4985, which means greater than 0.05. This value means that effective monitoring does not affect the potential for fraudulent financial statements. No matter how big the ratio value of the number of independent board of commissioners compared to the total board of commissioners in a company, it has no effect on the potential for fraudulent financial statements. So it can be concluded that hypothesis 4 is not supported. This study does not support research conducted by Nurmulina and Sasongko (2017).

### **The Effect of Change in Auditors on the Potential of Financial Statement Fraud**

The rationalization variable measured by AUDCHANGE has a coefficient of -0.029837 and a probability value of 0.2955 which means it is greater than 0.05. This value means that the change in auditor does not affect the potential for financial statement fraud. No matter how often the change of external auditors in a company, does not affect the potential for fraudulent financial statements. So it can be concluded that hypothesis 5 is not supported. This study supports research conducted by Tessa (2016), Kurnia (2017) and Akbar (2017).

### **The effect of change in directors on potential of financial statement fraud**

Change in director variable measured by DCHANGE has a coefficient of 0.050465 and a probability value of 0.0360 which means it is smaller than 0.05. This value means that capability

has a significant positive effect on the potential for fraudulent financial statements. The more frequent changes of directors in a company, the higher the potential for fraudulent financial statements. So it can be concluded that hypothesis 6 is supported. This research supports research conducted by Septriani and Handayani (2018).

### **The effect of frequent number of ceo's picture on the potential of financial statement fraud**

The frequent number of CEO's picture variable has a coefficient of -0.001347 and a probability value of 0.5027, which means it is greater than 0.05. This value means that arrogance has no effect on the potential for fraudulent financial statements. No matter how many CEO's pictures are in a company's annual report, it doesn't affect the potential for financial statement fraud. So it can be concluded that hypothesis 7 is not supported. The results of this study support research conducted by Ulfan et al (2016), Akbar (2017) and Septriani (2018).

## **Conclusion, Limitation, and Implication**

### **Conclusions**

The purpose of this study was to determine the effect of financial target variables, external pressure, nature of the industry, effective monitoring, change in auditors, change in directors, frequent numbers of CEO's picture on the potential variables of financial statement fraud on banking companies listed on the IDX during the period 2013-2017. Based on this research, the following conclusions can be drawn:

- 1) Variable financial targets and change in directors are proven to have a positive and significant effect on the potential for fraudulent financial statements.
- 2) Effective monitoring, change in auditor, and frequent number of CEO's picture variables are proven to have no effect on the potential for fraudulent financial statements.
- 3) Variable external pressure and nature of industry, negatively affect the potential for financial statement fraud. But this is contrary to the hypothesis formulated.

### **Limitations and Suggestions**

- 1) The potential for fraud as measured by the F-Score model, is apparently not suitable for use for banking companies, because there are some components that are not found in banking companies, so there are modifications. For further research, another measurement tool can be used, namely Discretionary Accrual or Beneish Model.
- 2) Change in directors can be influenced by many factors, not only due to the performance of the old directors who indicated cheating but can occur because they were appointed to the board of commissioners, assigned to other companies, died or other factors. For further research it is advisable to include changes in directors because of indications of fraud.

### **Implications of Research Results**

- 1) For companies, in order to strengthen the internal control system (SPI) and supervision in order to prevent the potential for fraudulent financial statements that can arise due to financial targets and changes in directors.
- 2) For users of financial statements, be careful of companies with high profitability and frequent changes in directors, because there might be potential for fraudulent financial statements.

### **References**

- ACFE. (2016a). *Report to Nations. Association of Certified Fraud Examiners*. Austin.
- ACFE. (2016b). *Report to the Nation on Occupational Fraud & Abuse. Global Fraud Study*.
- ACFE. (2018). *Report To the Nations 2018 Global Study on Occupational Fraud and Abuse Asia-Pacific*

- Edition* (Vol. 10). Retrieved from [https://www.acfe.com/uploadedFiles/ACFE\\_Website/Content/rttm/2018/RTTN-Asia-Pacific-Edition.pdf](https://www.acfe.com/uploadedFiles/ACFE_Website/Content/rttm/2018/RTTN-Asia-Pacific-Edition.pdf)
- AICPA. (2002). AU Section 316 Consideration of Fraud in a Financial, (99, 113), 167–218.
- Akbar, T. (2017). The Determination of Fraudulent Financial Reporting Causes by Using Pentagon Theory On Manufacturing Companies In Indonesia. *International Journal of Business, Economics and Law*, 14(December), 106–113.
- Albrecht, W. S., Albrecht, C. O., Albrecht, C. C., & Zimbelman, M. F. (2012). *Fraud Examination* (4th ed.). South-Western: Cengage Learning.
- Andayani, T. D. (2010). *Pengaruh Karakteristik Dewan Komisaris dan Komite Audit terhadap Manajemen Laba (Studi Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia)*.
- Ardiyani, S., & Sri Utaminingsih, N. (2015). Analisis Determinan Financial Statement Melalui Pendekatan Fraud Triangle. *Accounting Analysis Journal*, 4(1), 1–10.
- Beasley, M. S., & Salterio, S. E. (2001). The Relationship between Board Characteristics and Voluntary Improvements in Audit Committee Composition and Experience. *Contemporary Accounting Research*, 18(4), 539–570. <https://doi.org/10.1506/RM1J-A0YM-3VMV-TAMV>
- Cressey, D. R. (1953). *Other People's Money: A Study in the Social Psychology of Embezzlemente*. New Jersey: Patterson Smith.
- Crowe, H. (2011). Putting the Freud in Fraud: Why the Fraud Triangle Is No Longer Enough. *IN Horwarth*.
- Dechow, P. M., Ge, W., Larson, C. R., & Sloan, R. G. (2009). Predicting Material Accounting Misstatements. *Contemporary Accounting Research*, 28(1), 17–82. <https://doi.org/10.1111/j.1911-3846.2010.01041.x>
- Ghozali, I. (2013). *Aplikasi Analisis Multivariate Dengan Program SPSS* (7th ed.). Semarang: BP Universitas Diponegoro.
- Indarto, S. L., & Ghozali, I. (2016). Fraud Diamond : Detection Analysis On The Fraudulent Financial Reporting. *Risk Governance & Control: Financial Markets & Institutions*, 6(4), 116–123.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–306.
- Kurnia, A. A., & Anis, I. (2017). Analisis Fraud Pentagon dalam Mendeteksi Kecurangan Laporan Keuangan dengan Menggunakan Fraud Score Model. *Journal of Simposium Nasional Akuntansi XX*.
- Loebbecke, J. K., Eining, M. M., & Willingham, J. J. (1989). Auditors' Experience with Material Irregularities: Frequency, Nature, and Detectability. *Auditing: A Journal of Practice & Theory*, 9(1), 1–28.
- Manurung, D. T. H., & Hardika, A. L. (2015). Analysis of factors that influence financial statement fraud in the perspective fraud diamond : Empirical study on banking companies listed on the Indonesia Stock Exchange year 2012 to 2014. In *International Conference on Accounting Studies*.

- Nurmulina, A., & Sasongko, N. (2017). Analisis Fraud Pentagon dalam Mendeteksi Financial Statement. *Prospek Dan Tantangan Pengelolaan Keuangan Desa*. <https://doi.org/ISSN 2460-0784>
- Praditya, I. I. (2018). Terkuak, SNP Finance ReKayasa Laporan Keuangan Buat Bobol 14 Bank. *Liputan 6*. Retrieved from <https://www.liputan6.com/bisnis/read/3653070/terkuak-snp-finance-rekayasa-laporan-keuangan-buat-bobol-14-bank>
- Putriasih, K., Herawati, N. N. T., & Wahyuni, M. A. (2016). Analisis Fraud Diamond dalam Mendeteksi Financial Statement Fraud : Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Tahun 2013-2015. *Akuntansi Program S1*, 1(3).
- Rachman, F. F. (2018). Bank Bukopin Permak Laporan Keuangan, Ini Kata BI dan OJK. *Detikfinance.Com*. Retrieved from <https://finance.detik.com/moneter/d-3994551/bank-bukopin-permak-laporan-keuangan-ini-kata-bi-dan-ojk>
- Rezaee, Z., & Riley, R. (2009). *Financial Statement Fraud: Prevention and Detection* (2nd ed.). Hoboken: John Wiley & Sons, Inc.
- Richardson, S. A., Sloan, R. G., Soliman, M. T., & Tuna, I. (2005). Accrual reliability, earnings persistence and stock prices. *Journal of Accounting and Economics*, 39(3), 437–485. <https://doi.org/10.1016/j.jacceco.2005.04.005>
- Rini, V. Y., & Achmad, T. (2012). Analisis Prediksi Potensi Risiko Fraudulent Financial Statement melalui Fraud Score Model. *Diponegoro Journal of Accounting*, 1, 1–15.
- Romney, M. B., & Steinbart, P. J. (2012). *Accounting Information Systems* (12th ed). Harlow: Pearson Education Limited.
- Septriani, Y., & Handayani, D. (2018). Mendeteksi Kecurangan Laporan Keuangan dengan Analisis Fraud Pentagon . *Jurnal Politeknik Caltex Riau*, 11(1), 11–23.
- Sihombing, K. S., & Rahardjo, S. N. (2014). Analisis Fraud Diamond Dalam Mendeteksi Financial Statement Fraud : Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia ( Bei ) Tahun 2010-2012. *Diponegoro Journal of Accounting*, 03(02).
- Skousen, C. J., Smith, K. R., & Wright, C. J. (2008). Detecting and predicting financial statement fraud: the effectiveness of the fraud triangle and.
- Skousen, C. J., & Twedt, B. J. (2009). *Fraud in Emerging Markets: A Cross Country Analysis*.
- Sriyana, J. (2014). *Metode Regresi Data Panel* (1st ed.). Yogyakarta: Ekonesia.
- Sukrisnadi, D. (2010). Pemakaian Ukuran F-Score dalam Kasus-Kasus Salah Saji Laporan Keuangan di Pasar Modal Indonesia.
- Summers, S. L., & Sweeney, J. T. (1998). Fraudulently Mistated Financial Statements An and Insider Trading: An Empirical Analysis. *The Accounting Review*, 73(1), 131–146.
- Suyanto. (2009). Evidence from Statement on Auditing Standard No . 99. *Gajah Mada International Journal of Business*, 11(1), 117–144.
- Tessa, C. (2016). *Fraudulent Financial Reporting : Pengujian Teori Fraud Pentagon pada Sektor Keuangan dan Perbankan di Indonesia*.
- Widarjono, A. (2015). *Statistika Terapan dengan Excell dan SPSS* (1st ed.). Yogyakarta: UPP STIM YKPN.

- Wolfe, D. T., & Hermanson, D. R. (2004). The Fraud Diamond : Considering the Four Elements of Fraud. *CPA Journal*, 12(74), 38–42.
- Yusof, M. K., Ahmad, K. A. H., & Simon, J. (2015). Fraudulent Listed Companies. *The Macrotheme Review*, 4(3).
- Zaki, N. M. (2017). The Appropriateness of Fraud Triangle and Diamond Models in Assesing The Likelihood of Fraudulent Financial Statements- An Empirical Study on Firms Listed in The Egyptian Stock Exchange. *International Journal of Social Science and Economic Research ISSN;* 2(2), 2403–2433.