

# Fraud diamond analysis in detecting financial statement fraud

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## ABSTRACT

*This study aimed to analyze the factors used to detect financial statement fraud from a fraud diamond perspective. It tried to find out the effect of pressure proxied by financial targets, opportunity proxied by ineffective monitoring, rationalization proxied by change in auditors, and capability proxied by director change on financial statement fraud. It used 36 mining companies listed on the Indonesia Stock Exchange (IDX) period 2014-2016 as the sample. This sample was taken using a purposive sampling technique and data analysis were analyzed using multiple linear regression. The results indicate that pressure proxied by financial targets and rationalization proxied by change in auditors have an effect on financial statement fraud, whereas opportunity proxied by ineffective monitoring and capability proxied by replacement of directors have no effect on financial statement fraud.*

## ABSTRAK

*Penelitian ini bertujuan untuk menganalisis faktor-faktor yang digunakan untuk mendeteksi financial statement fraud dengan perspektif fraud diamond. Penelitian ini menganalisis pengaruh pressure yang diproksikan dengan financial target, opportunity yang diproksikan dengan ineffective monitoring, rationalization yang diproksikan dengan change in auditor dan capability yang diproksikan dengan pergantian direksi terhadap financial statement fraud. Penelitian ini menggunakan 36 perusahaan pertambangan yang terdaftar di Bursa Efek Indonesia (BEI) pada tahun 2014-2016 sebagai sampel, yang diambil dengan menggunakan purposive sampling. Datanya dianalisis menggunakan uji regresi linier berganda. Hasil penelitian ini menunjukkan bahwa pressure yang diproksikan dengan financial target dan rationalization yang diproksikan dengan change in auditor berpengaruh terhadap financial statement fraud, sedangkan opportunity yang diproksikan dengan ineffective monitoring dan capability yang diproksikan dengan pergantian direksi tidak berpengaruh terhadap financial statement fraud.*

## 1. INTRODUCTION

Financial statement is the medium a company used to explain how its business conditions can be beneficial for the users. Through the financial statement, stakeholders can find out the state of the company without seeing it directly. The company performance reflected in the financial statement encourages the company to display financial statement properly with the aim to attract investors.

Considering the importance of information presented in financial statement,

the company management should have a motivation to present good company performance information. However, management cannot always make this happen, enabling the management to commit fraud in making financial reports. There have been several big companies involved in fraud cases, for example Enron, a company engaged in the energy sector with the Public Accounting Firm Arthur Andersen. In 2002, public revealed that Enron's management misstated its financial statements by recording a company's profit

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of US \$ 586 million, although in reality the company was in a state of loss, so as not to lose investors. However, in the end, the company went bankrupt due to accumulated debt (Albrecht et al, 2011: 358).

A similar case also occurred in the country involving a mining company PT Bumi Resources Tbk. In 2010 Indonesia Corruption Watch (ICW) reported the alleged manipulation of the number of sales reports of the mining company owned by the Bakrie Group to the Directorate General of Tax (DGT). ICW suspected that there was manipulation of reporting carried out by PT Bumi Resources Tbk. and its subsidiaries from 2003-2008 causing the state loss of US \$ 620.49 million. The results of ICW calculations using various primary data including audited financial statements showed that the sales report of PT Bumi Resources Tbk in 2003-2008 was US \$ 1.06 billion lower than the actual amount (Wijaya, 2010).

Financial statement fraud case involving PT Timah Tbk occurred in the first half of 2015 financial statements stating that the efficiency and strategy of the company had led to positive performance, while in reality in the first half of 2015 the operating profit had lost IDR 59 billion. In addition to facing a decrease in profits, the debt of PT Timah Tbk. increased by almost 100 percent compared to 2013 which was only IDR 263 billion. So, the total debt increased to IDR 2.3 trillion in 2015 (Afriyanto, 2016).

Based on the results of research conducted by the Association of Certified Fraud Examiners (ACFE) in 2014 and 2016, the losses incurred from fraud in mining sector companies were the highest compared to other sectors. Mining sector caused a loss of US \$ 900,000 in 2014 and US \$ 500,000 in 2016. In addition, research by ACFE also found that financial statement fraud was the most detrimental type of fraud, with an average loss of US \$ 1 million in 2014 and decreased to US \$ 975,000 in 2016, but it was still the highest compared to the misuse of assets with an average loss of US \$ 125,000 and corruption with an average loss of US \$ 200,000.

The results of research conducted by Zaki (2017) show that pressure proxied by external pressure has a significant effect on financial statement fraud. Meanwhile, pressure which is proxied by financial target, opportunity which is proxied by the nature of industry and ineffective monitoring have no effect on financial statement fraud. The results of research conducted by Yesiariani

and Rahayu (2016) show that pressure, proxied by external pressure and rationalization have a significant positive effect on financial statement fraud, whereas pressure, proxied by financial stability, personal financial need, opportunity proxied by the nature of industry and ineffective monitoring, and capability have a significant positive effect on financial statement fraud. The results of research conducted by Widarti (2015) show that pressure, proxied by financial stability, external pressure, and financial targets has a significant effect on financial statement fraud, whereas pressure which is proxied by personal financial need, opportunity which is proxied by the nature of industry, ineffective monitoring and organization structure, and rationalization have no effect on financial statement fraud. Furthermore, the results of research conducted by Sihombing and Rahardjo (2014) show that pressure, proxied by financial stability and external pressure, opportunity which is proxied by the nature of industry, and rationalization have a significant effect on financial statement fraud, whereas pressure, proxied by financial target, opportunity, proxied by ineffective monitoring, rationalization which proxied by change in auditor, and capability have no effect on financial statement fraud.

Based on the differences in the results of previous studies, the author found it important for conducting research on fraud diamond analysis in detecting financial statement fraud. The researcher expects to find out further the positive effect of pressure, opportunity, rationalization, and capability on financial statement fraud.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

### Fraud Diamond Theory

Fraud diamond theory is the development of its predecessor theory, namely fraud triangle theory proposed by Cressey in 1953 (in Abdullahi and Mansor, 2015) consisting of three causes of fraud: pressure, opportunity, and rationalization. In 2004, Wolfe and Hermanson came up with a new theory called fraud diamond, where there is one more cause of fraud other than the three causes mentioned in fraud triangle theory, namely capability, where fraud would not occur without the right person with the right ability to do every detail of fraud. Opportunity opens the door to fraud. Pressure and rationalization can attract someone to pass through. Yet, only people who

have capability can realize the open door and the opportunity to take advantage by passing it, not just once, but many times.

### **Fraud**

According to the Association of Certified Fraud Examiners (ACFE), in Kennedy and Siregar (2017), fraud is intentional unlawful acts committed for a specific purpose (manipulation or giving false reports to other parties) by people from inside or outside organization to obtain personal or group benefits that directly or indirectly harm other parties. According to Albrecht et al. (2011: 7), fraud consists of several important elements: (a) presentation; (b) about a material point; (c) which is false; (d) done intentionally or recklessly; (e) which is believed; (f) acted upon by the victim; (g) to the victim's damage.

### **Financial Statement Fraud**

Financial statement fraud is a form of fraud committed by negligence in making financial reports that mislead users of the financial statement. According to ACFE (Rezaee, 2002), financial statement fraud can be as an intentionally causing misstatement, or eliminating material information, or misleading accounting data. And when considered with all the information presented, it can make users change their decisions.

The symptoms of financial statement fraud, according to Albrecht (2011: 137), are: (1) accounting anomalies, (2) weak internal control, (3) analysis anomalies, (4) excessive lifestyle, (5) unusual behavior, and (6) complaints. Financial statement fraud can be done by overstating assets, sales and profits, as well as understating debt, costs and losses. The reasons for the financial statement fraud are to attract investor interest, eliminate negative perceptions in the market, obtain a higher selling price for acquisitions, achieve company goals and objectives, and receive bonuses related to performance (Wilopo, 2014: 267).

### **The Effect of Pressure on Financial Statement Fraud**

Pressure is one of the causes of fraud. According to SAS No. 99, there are four general conditions that describe pressure: financial stability, financial targets, personal financial needs, and external pressure. This study uses financial targets as the proxy of pressure because almost 95% of fraud is committed because of financial pressures (Al-Brecht et al, 2011: 36).

The pressure which the management

often feel as an agent is the financial targets set by the owner or stockholder as the principal. The management, given financial targets by the shareholder feel that they need to provide good performance in order to get a bonus. This can cause management to feel pressured because of conflicts of interest between the management and the stockholder, where shareholder wants to get good financial performance, while management wants to get bonuses. The existence of this conflict of interest causes management to try to meet these targets in order to improve their well-being and fulfill the wishes of stockholder, although it is done through improper improper means, such as conducting financial statement fraud.

Financial targets determined by stockholders are a benchmark for stockholders in assessing management performance determined by the level of profit that the company have to obtain (Manurung & Hardika, 2015). The researcher can use profitability for measuring the level of corporate profits that is the company's ability to generate profits. One of the profitability ratios is Return on Assets (ROA), the ratio of earnings to the number of assets used, to measure the ability of a company to use its assets to generate profits. ROA is often used to assess manager's performance and determine bonuses, wage increases, etc. (Skousen et al., 2009).

Management will always try to show high profitability (ROA) performance, because the higher the ROA, the better the company's performance in generating profits through its assets, and of course management will get a bonus if the financial targets can be achieved. According to Summers and Sweeney (1998), ROA significantly distinguishes between fraud firms and non-fraud firms (Skousen et al., 2009). This shows that the higher the targeted ROA, the higher the possibility of financial statement fraud. Therefore, in this study, pressure is proxied by financial targets measured using ROA (return on assets). This statement is supported by the results of research conducted by Yesiriani & Rahayu (2016), Manurung & Hadian (2013), and Widarti (2015) that there is a significant effect of financial targets, as measured by ROA, on financial statement fraud.

Based on the theoretical basis and the results of previous studies, the hypothesis proposed is as follows:

H1: *Pressure has a positive effect on financial statement fraud*

### The Effect of Opportunity on Financial Statement Fraud

One of the causes of fraud is the opportunity, and the opportunity exists because of weak internal control and monitoring of the company so that the agent has the opportunity to commit fraud. According to SAS No. 99, there are three conditions that describe opportunities: the nature of industry, ineffective monitoring, and organizational structure. This study uses ineffective monitoring as the proxy of opportunity, where according to SAS No. 99, ineffective monitoring is a situation where a company does not have effective supervision to monitor the company's performance. One of the efforts to reduce the chance of fraud is to have a good internal control system. The number of independent commissioners of a company can reflect how effective the company's supervision is to prevent the occurrence of financial statement fraud. The board of commissioners has the duty to guarantee the implementation of the company's strategy, oversee management in managing the company, and require the implementation of accountability (Forum for Corporate Governance in Indonesia, 2003).

According to Beasley (1996), the inclusion of a board of commissioners from outside the company increases the effectiveness of the board in overseeing management to prevent financial statement fraud. Therefore, the number of independent boards of commissioners is used to measure opportunity proxied by ineffective monitoring in detecting financial statement fraud. This statement is supported by the results of research conducted by Beasley et al., (1996), Dechow et al., (1996), and Dunn (2004) that fraud firms consistently have fewer independent commissioners

than non-fraud firms. The results of research conducted by Manurung & Hardika (2015) also show that there is a significant effect of the number of independent commissioners on financial statement fraud.

Based on the theoretical basis and the results of previous studies, the hypothesis proposed is as follows:

H2: *Opportunity has a positive effect on financial statement fraud*

### The Effect of Rationalization on Financial Statement Fraud

Rationalization is a personal reason used to justify an action even though the action is actually wrong (Albrecht et al, 2011: 50). Rationalization can make someone who initially does not want to commit fraud end up doing it because the perpetrator feels that his actions are right. The perpetrators will rationalize their actions before committing fraud. They justify their actions as something ethical, so fraud can occur. In addition, fraud perpetrators will look for ways or reasons to justify their actions, one of which is to eliminate evidence or traces of fraud they have committed.

Change in auditor is one of the rationalization efforts made by the company to eliminate the traces of financial statement fraud (Lou & Wang, 2009). Stice (1991), St. Pierre & Anderson (1984), and Loebbecke et al., (1989) found that audit failure and litigation increased immediately after the change in auditor. According to Loebbecke et al., (1989), a large number of frauds are committed in the first two years of the auditor's tenure, so that the change in auditor in a company within two years can be an indication of fraud, as stated in

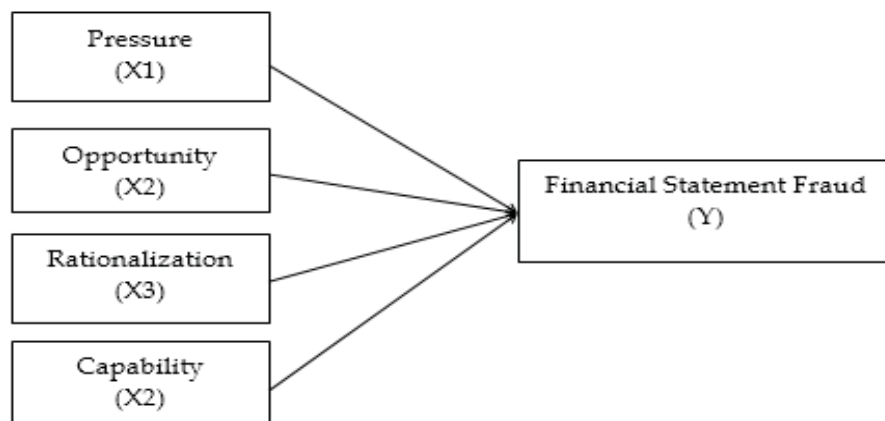


Figure 1  
Framework



the Statement on Auditing Standard (SAS) No. 99, because the old auditor knows more about the condition of the company so that he has a greater possibility to detect financial statement fraud than the new auditor. Therefore, the researcher used the change of auditor to proxy rationalization because it can increase the possibility of fraud. The statement was proven by the research conducted by Manurung & Hardika (2015) and Lou & Wang (2009) that the change in auditor had an effect on financial statement fraud.

Based on the theoretical basis and the results of previous studies, the hypothesis proposed is as follows:

*H3: Rationalization has a positive effect on financial statement fraud*

### **The Effect of Capacity on Financial Statement Fraud**

According to Wolfe and Hermanson (2004), capability is one of the causes of fraud because fraud will not occur without the right person with the right ability to commit every detail of fraud. There are six characteristics in capability: position or function, intelligence, confidence and ego, coercion skills, effective lying, and the ability to deal with stress. Based on these characteristics, the position of directors has the capability to commit fraud. People consider that directors have the ability to commit fraud because directors are aware of gaps in the company and are good at seeing opportunities in certain functions that have the potential to commit fraud. The Board of Directors has control and authority within the company, as well as the ability to influence subordinates, including influences in systems, processes, company data, operational decision making and selection of accounting policies in the process of preparing company financial statements.

The change in directors is the transfer of authority from the old director to the new director with the aim to improve the company performance. Besides being able for improving the company performance, the change in directors can also be as a tool to remove old directors who know about fraud in the company. The director change can also reduce effectiveness in performance because it requires more time to adapt to the culture of new directors so that it creates a stress period that further opens opportunities for fraud (Brennan & McGrath, 2007). Director change

is generally laden with political content and the interests of certain parties that trigger the emergence of conflict of interest (Sihombing & Rahardjo, 2014), so that the replacement of directors can be used as an indicator of fraud. Therefore this study uses director change to measure capability in detecting financial statement fraud. The statement gained a support by research conducted by Manurung & Hardika (2015) that the director change has an effect on financial statement fraud.

Based on the theoretical basis and the results of previous studies, the hypothesis proposed is as follows:

*H4: Capability has a positive effect on financial statement fraud.*

## **3. RESEARCH METHOD**

### **Sample Classification**

The population of this study covered all mining sector companies listed on the Indonesia Stock Exchange (IDX) period 2014 – 2016 consisting of 42 companies with 126 data.

This study used a purposive sampling technique with predetermined criteria in order to obtain the representative samples. The criteria are as follows:

1. The companies published annual financial statements on the official website of the companies or at [www.idx.co.id](http://www.idx.co.id) during the period 2014-2016
2. Data relating to the research variables were presented in full during the period 2014-2016. The companies were not delisted from IDX during the period 2014-2016

After going through purposive sampling, of the 42 companies listed on the Indonesia Stock Exchange in 2014-2016, 36 companies or 108 data were made sample in this study.

### **Research Data**

The type of data in this study is quantitative data that emphasize hypothesis testing through measurement of variables in the form of numbers. One example of quantitative data is data in the form of financial ratios.

This study collected the data by means of documentation method. The data source used in this study is secondary data, or the data obtained from other parties. This research data are the company's financial statements obtained from the Indonesia Stock Exchange (IDX) website, [www.idx.co.id](http://www.idx.co.id) or the company's official website.

### Research Variables

There are two types of variables in this study: the dependent variable and the independent variable. The dependent variable in this study is financial statement fraud, while the independent variables are pressure (X1) which is proxied by financial targets, opportunity (X2), proxied by ineffective monitoring, rationalization (X3), proxied by change in auditor, and capability (X4), proxied by replacement of directors.

### Operational Definition of Variables

#### Financial Statement Fraud

Financial statement fraud is a deliberate mistake in making financial statements so that it can mislead its users. This study measured financial statement fraud using a fraud score model (F-Score) proposed by Dechow et al (2012).

F-Score = Accrual Quality + Financial Performance

Accrual quality is proxied by RSST accrual (Richardson et al., 2004):

$$\text{RSST Accrual} = \frac{\Delta WC + \Delta NCO + \Delta FIN}{\text{Average Total Assets}}$$

Note:

WC (Working Capital) = Current Assets - Current Liability

NCO (Non-Current Operating Accrual) = (Total Assets - Current Assets - Investment and Advances) - (Total Liabilities - Current Liabilities - Long Term Debt)

FIN (Financial Accrual) = Total Investment - Total Liabilities

$$\text{ATS (Average Total Assets)} = \frac{\text{Beginning Total Assets} + \text{End Total Assets}}{2}$$

$\Delta$  = delta (difference in t and t-1)

Financial performance of a financial statement is considered capable of predicting the occurrence of financial statement fraud (Skousen and Twedt, 2009)

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

Note:

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

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

$$\text{Change in Cash Sales} =$$

$$\frac{\Delta \text{Sales}}{\text{Sales (t)}} - \frac{\Delta \text{Receivables}}{\text{Receivables (t)}}$$

$$\text{Change in Earnings} =$$

$$\frac{\text{Earnings (t)}}{\text{Average Total Assets}} - \frac{\text{Earnings (t-1)}}{\text{Average Total Assets}}$$

#### Pressure

In this study, it proxied pressure by financial target, an excessive pressure experienced by management to achieve financial target determined by shareholders. Financial target is a benchmark for stockholders in assessing management performance determined by the level of profit that must be obtained (Manurung & Hardika, 2015). The researcher measured the level of corporate profits by using profitability ratios, one of which is Return on Assets (ROA), which is the ratio of profits to the number of assets used to measure the ability of companies to use their assets in generating profits. All researchers often use ROA to assess manager's performance and determine bonuses, wage increases, etc. (Skousen et al., 2009). ROA is calculated by the formula:

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

#### Opportunity

In this study, the researcher proxied opportunity based on an ineffective monitoring. According to SAS No. 99, ineffective monitoring is a situation where a company does not have effective supervision to monitor its performance. Lack of good internal control and supervision can give employees the opportunity to commit fraud.

**Table 1**  
**Descriptive Analysis**

	N	Minimum	Maximum	Mean	Std. Deviation
FSCORE	77	-1.52667	.75062	-.0561886	.36305482
ROA	77	-.64387	.33640	.0089380	.12245746
BDOUT	77	.00	.67	.4107	.12438

Source: Processed data

An independent board of commissioners is a commissioner that has no business relationship (contractual) or other relationships with the majority stockholders and the board of directors, both directly and indirectly (Prabowo, 2014). The board of commissioners has the duty to guarantee the implementation of the company's strategy, oversee management in managing the company, and require the implementation of accountability (Forum for Corporate Governance in Indonesia, 2003). According to Beasley (1996), the inclusion of a board of commissioners from outside the company increases the effectiveness of the board in overseeing management to prevent financial statement fraud. Therefore, ineffective monitoring is measured using the number of independent commissioners (BDOUT) calculated by the formula:

$$\text{BDOUT} = \frac{\text{Number of Independent Commissioners}}{\text{Total Number of Commissioners}}$$

#### **Rationalization**

This study proxied rationalization by the change in auditors. The change in company auditors can be interpreted as an effort to eliminate the fraud trail found by previous independent auditors. Old auditors are more aware of the condition of the company so that they are more likely to detect fraud than new auditors. This tendency encourages companies to replace their independent auditors to cover up fraud that occurs within the company. Therefore, the variable of rationalization, proxied by the change in public accounting firm ( $\Delta\text{CPA}$ ) as measured by the dummy variable, is given a value of 1 if there is a change in public accounting firm during the period 2014-2016 and given a value of 0 if there is no change in

the public accounting firm during the period 2014-2016.

#### **Capability**

Capability is a person's ability to commit fraud. According to Wolfe and Hermanson (2004), fraud will not occur without the right person with the right ability to commit every detail of fraud. The position of the board of directors is considered to have the capability to commit fraud. The change in directors is generally laden with political content and the interests of certain parties which triggers the emergence of conflict of interest (Sihombing & Rahardjo, 2014). The change in directors can be used as an indicator of fraud because it can be used as a tool to get rid of old directors who know fraud in a company. Therefore, in this study capability is proxied by director change (DCHANGE) as measured by a dummy variable, which is given a value of 1 if there is a replacement of directors in the period 2014-2016, and given a value of 0 if there is no director change in the period 2014-2016.

## **4. DATA ANALYSIS AND DISCUSSIONS**

### **Descriptive Statistics**

Descriptive analysis aims to provide an overview or description of the data collected (Ghozali, 2013: 19). Table 1 shows that the dependent variable in this study consists of 77 data with a minimum value of -1.52667 and a maximum value of 0.75062. The average value of the sample is -0.0561886 while the standard deviation or the distance between one data to another is 0.36305482. This indicates that the standard deviation value is higher than the mean value, which means that the variation of F-score data is fairly large, or heterogeneous data.

**Table 2**  
**Descriptive Analysis of Independent Variable of Rationalization  $\Delta\text{CPA}$**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	63	81.8	81.8	81.8
	1	14	18.2	18.2	100.0
	Total	77	100.0	100.0	

Source: Processed data

**Table 3**  
**Descriptive Analysis of the Independent Variable of Capability DCHANGE**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	42	54.5	54.5	54.5
	1	35	45.5	45.5	100.0
	Total	77	100.0	100.0	

Source: Processed data

**Table 4**  
**Results of Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.348	.128		-2.730	.008
ROA	1.501	.282	.506	5.322	.000
BDOUT	.500	.280	.171	1.789	.078
ΔCPA	.220	.089	.235	2.456	.016
DCHANGE	.074	.070	.102	1.062	.292
R <sup>2</sup>	0.351				
Adjusted R <sup>2</sup>	0.315				
F count	9.723				
Sig. F	0.000				

Source: Processed data

Table 1 shows the total data for ROA consisting of 77 data with a minimum value of -0.64387 and a maximum value of 0.33640. The mean value of ROA is 0.0089380 while the standard deviation value is 0.12245746. This indicates that the standard deviation value is higher than the mean value. This also means that variation in ROA data is fairly large or the data are heterogeneous.

On Table 1, it shows that the total data for BDOUT are 77 data with a minimum value of 0.00 and a maximum value of 0.67. The mean value is 0.4107 with a standard deviation is 0.12438. The standard deviation value indicates a lower value than the mean. This means that the variation of BDOUT data is relatively small or they are homogeneous.

Table 2 shows that there are 77 ΔCPA data, where the number 0 has a frequency of 63, meaning that as many as 63 data or 81.8% of the data did not experience a change in the public accounting firm (ΔCPA) in the period 2014-2016. Number 1 has a frequency of 14, meaning that as many as 14 data or 18.2% of data experienced a change of public accounting firm (ΔCPA) in the period 2014-2016. Therefore, it can be concluded that many companies did not make a change of public accounting firm during 2014-2016 so the risk of financial statement fraud is getting lower because of low rationalization.

On Table 3, it shows that there are 77 DCHANGE data. Number 0 has a frequency of 42, which means that 42 data or 54.5% of data did not experience a director change in 2012-2016. Number 1 has a frequency of 35, which means that 35 data or 45.5% of data experienced director change in 2012-2016. Based on this description, it provides evidence

that more companies did not make director change during 2014-2016 so that the risk of financial statement fraud was lower because of low capability.

The data used in this study meet the classical assumption test so that the data are normally distributed. There is no multicollinearity, no autocorrelation, and no heteroscedasticity. After fulfilling the classical assumption test, a multiple linear regression analysis is then performed. The results can be seen on Table 4.

Based on the results of determination coefficient test, it obtained the value of Adjusted R<sup>2</sup> is 0.315 which means that the effect of ROA, BDOUT, ΔCPA, and DCHANGE on the F-score is 31.5% and there are other factors, consisting of 68.5%, which are not included in the model described by error.

Based on the results of the F test, it obtained the significance value is 0.000, which is less than 0.05. So, it can be concluded that the model fit and all the independent variables simultaneously affect the dependent variable.

#### **The Effect of Pressure on Financial Statement Fraud**

Based on the results of the t test, the significance value of ROA is  $0.000 < 0.05$ , and t value is 5.322. This means that pressure has a positive effect on financial statement fraud. This shows that the higher the pressure felt by management, the higher the risk of financial statement fraud. In this case, the high pressure is in the form of financial targets set by the principal (stockholders). Setting targets to achieve high ROA can put pressure on management to achieve these targets. That is because there is a conflict of interest in the relationship



between management and stockholders, where the stockholders want to get good performance results from their companies, while the management wants to get bonuses when reaching the stockholder targets. Therefore, management that experiences high pressure has a high risk of conducting financial statement fraud to meet the wishes of stockholders and improve their welfare. The results of this study are in line with the results of the research conducted by Manurung & Hardika (2015), Widarti (2015), and Manurung & Hadian (2013) that the pressure which is proxied by financial targets has an effect on financial statement fraud.

#### **The Effect of Opportunity on Financial Statement Fraud**

The results of t test show that the significance value of BDOUT is  $0.078 > 0.05$ , which means that opportunity has no effect on financial statement fraud. This is because the number of independent commissioners in the sample companies is not proportional to the total number of commissioners. It has an evidence with the mean value of BDOUT of 0.4107. It implies that the average number of independent board of commissioners in the sample company is 41.07% of the total number of board of commissioners. However, the number of data that has the number of independent commissioners of  $\geq 41.07\%$  is only 27 data from 77 data, or 35.06% data has the number of independent commissioners above the average. This shows that there are more sample companies that have a smaller number of independent commissioners. In addition, the number of independent boards of commissioners which is smaller than the total number of boards of commissioners can make their performance less effective and maximum, because there are fewer independent parties than interested parties. So, there is a possibility that the supervision of the company is not independent and objective and there is intervention from certain parties.

Based on research data, the maximum value of the comparison between the number of the members of independent board of commissioners and the total number of the members of the board of commissioners is 0.67 and the minimum value is 0. Judging from the activities carried out by the board of commissioners in companies that have the highest BDOUT value of 0.67, they hold meetings in 4-8 times a year, while companies

with a BDOUT value of 0 hold 9 meetings. The meetings are held to discuss company issues and problems, operational performance and company development. Companies that do not have independent commissioners hold more meetings than companies that have many independent commissioners. This shows that there is no difference in the performance between companies that do not have independent commissioners and companies that have many independent commissioners. This indicates that the number of the members of independent board of commissioners in a company is not sufficient to be used to assess the supervisory performance of the board of commissioners. However, this can also be seen from the activities they do, one of which is from the number of meetings held.

Based on the description above, it can be said that ineffective monitoring has no effect on financial statement fraud. The results of this study are in line with the results of research conducted by Yesiariani & Rahayu (2016), Widarti (2015), and Sihombing & Rahardjo (2014) that ineffective monitoring has no effect on financial statement fraud.

#### **The Effect of Rationalization on Financial Statement Fraud**

Based on the results of the t-test, the significance value of  $\Delta CPA$  is  $0.016 < 0.05$  with the t-value of 2.456, which means that rationalization has a positive effect on financial statement fraud. This shows that the more often the management performs rationalization, the higher the risk of financial statement fraud. Companies that frequently change public accounting firms do not represent that they make efforts to rationalize fraud committed by trying to cover the trail of fraud in the company in order that they cannot be revealed by the previous independent auditor. The results of this study are in line with the results of research conducted by Manurung & Hardika (2015) that rationalization has an effect on financial statement fraud.

#### **The Effect of Capability on Financial Statement Fraud**

Based on the results of t-test, the significance value of DCHANGE is  $0.078 > 0.05$ , which means that capability has no effect on financial statement fraud. Based on research data, there are a total of 23 companies that make changes in directors. After searching in the annual reports of the companies, it was known several

reasons why the companies changed the board of directors: (a) 11 companies changed their directors because of the resignation of the directors concerned, there were directors who received other assignments so that they resigned from their positions; (b) 2 companies made changes in the board of directors because the term of office of the board of directors concerned already expired; (c) 4 companies made changes in directors because they honorably dismissed the directors concerned from their positions which were likely to be used to improve company performance; (d) 1 company made changes in directors because the directors concerned experienced serious health problems that required intensive treatment; (e) and 5 companies did not provide reasons why they changed the directors.

Based on the description above, it can be seen that 18 out of 23 companies, or 78% of the companies, made changes in directors for obvious reasons. The change in director was done not because the old director knew or did not know of fraud in the company. The stockholders made changes in directors to improve company performance by recruiting new directors who were considered more competent than the previous directors or because of specific reasons from the directors concerned such as health reasons and other assignments, not done to cover fraud conducted by previous directors. So, it can be said that capability in this study does not affect the financial statement fraud. The results of this study are in line with the results of research conducted by Annisya, et al (2016), Yesiariani & Rahayu (2016), and Sihombing & Rahardjo (2014) that capability has no effect on financial statement fraud.

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

### Conclusion

Based on the results of the analysis and discussion explained above, it can be drawn some conclusions as follows:

1. Based on the results of the significance of the regression model test (F test), it showed that all independent variables, consisting of pressure proxied by financial target, opportunity proxied by ineffective monitoring, rationalization proxied by change in auditor, and capability proxied by director change, simultaneously have an effect on financial statement fraud.
2. Based on the results of the hypothesis

test (t test), this study found out that the variable of pressure proxied by financial target and the variable of rationalization proxied by the change in auditor have a positive effect on financial statement fraud, while the variable of opportunity proxied by ineffective monitoring and the variable of capability proxied by director change) have no effect on financial statement fraud.

### Limitation and Sugestion

As based on the conclusion, there are still limitations in this study such as the following: Based on the research results and conclusions above, the limitations and suggestions for further research are as follows:

1. This study only uses mining sector companies with a research period of three years. For that reason, the researcher recommend for further research that the researchers should add the number of samples in terms of the company sector and research period. This is intended to obtain more accurate results.
2. This study only uses the variables of pressure proxied by financial target, opportunity proxied ineffective monitoring, rationalization proxied by change in auditors, and capability proxied by director change. Therefore, further study should use other proxies for independent variables from the fraud diamond model, such as personal financial need for the variable of pressure, organizational structure for the variable of opportunity, total accruals for the variable of rationalization, and other proxies besides change in directors for the variable of capability. This is intended so that the company and related parties can find out what factors that can influence the financial statement fraud with the aim to prevent and detect financial statement fraud as early as possible
3. This study uses ROA to measure pressure, the number of independent commissioners to measure opportunity, the number of independent commissioners to measure rationalization, and the change in directors to measure capability. Thus, future research should use other measurement tools such as growth in sales, growth in assets, cash flow to earnings growth, sales to account receivable, sales to total assets, inventory to total sales, and free cash flow for the variable of pressure, sales from foreign operations, independent audit

committees, and frequency of meetings of the independent commissioners for the variable of opportunity, audit opinion for the variable of rationalization, and so on. It is intended to better determine what measures that can be used as a tool to detect financial statement fraud.

4. Cultural factors should be also influential and therefore further research can also add cultural factors to analyze the fraud diamond theory in detecting financial statement fraud and to fit the area where the research is conducted.

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